

FEDERAL OPERATING PERMIT

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

AUTHORIZING THE OPERATION OF
Eagle Fractionation Units
Natural Gas Liquids

LOCATED AT
Chambers County, Texas
Latitude 29° 51' 24" Longitude 94° 54' 51"
Regulated Entity Number: RN102323268

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: 03557 Issuance Date: August 14, 2013

For the Commission

Table of Contents

Section	Page
General Terms and Conditions	1
Special Terms and Conditions	1
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting	1
New Source Review Authorization Requirements	7
Compliance Requirements.....	8
Risk Management Plan	9
Permit Location.....	10
Permit Shield (30 TAC § 122.148).....	10
Attachments	11
Applicable Requirements Summary	12
Permit Shield.....	43
New Source Review Authorization References.....	47
Appendix A	52
Acronym List	53
Appendix B	54

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. 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) occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in

compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader. 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.
- C. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
 - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
 - (ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)
 - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- 4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
 - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
 - B. Title 40 CFR § 60.8 (relating to Performance Tests)
 - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
 - D. Title 40 CFR § 60.12 (relating to Circumvention)

- E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
 - F. Title 40 CFR § 60.14 (relating to Modification)
 - G. Title 40 CFR § 60.15 (relating to Reconstruction)
 - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
5. The permit holder shall comply with the 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.

New Source Review Authorization Requirements

6. 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
7. 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.
- A. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard

Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

8. 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.
9. 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.
10. 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
11. 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

12. 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.

Permit Location

13. 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)

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

Attachments

Applicable Requirements Summary

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

Unit Summary 13

Applicable Requirements Summary 16

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
EF EMG ENG	SRIC ENGINES	N/A	R7303-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
EF EMG ENG	SRIC ENGINES	N/A	60III	40 CFR Part 60, Subpart III	No changing attributes.
EF EMG ENG	SRIC ENGINES	N/A	63ZZZZ-01	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
EF FWP	SRIC ENGINES	N/A	R7303-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
EF FWP	SRIC ENGINES	N/A	60III	40 CFR Part 60, Subpart III	No changing attributes.
EF FWP	SRIC ENGINES	N/A	63ZZZZ-01	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GRP-EF-FUG	FUGITIVE EMISSION UNITS	FRAC F EFA, FRAC F EFB	R5352-01	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
GRP-EF-FUG	FUGITIVE EMISSION UNITS	FRAC F EFA, FRAC F EFB	60OOOO-01	40 CFR Part 60, Subpart OOOO	No changing attributes.
HR15.001A	PROCESS HEATERS/FURNACES	N/A	R7310-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
HR15.001A	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Db-01	40 CFR Part 60, Subpart Db	No changing attributes.
HR15.001A	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD-01	40 CFR Part 63, Subpart DDDDD	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
HR15.001B	PROCESS HEATERS/FURNACES	N/A	R7310-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
HR15.001B	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Db-01	40 CFR Part 60, Subpart Db	No changing attributes.
HR15.001B	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDDD-01	40 CFR Part 63, Subpart DDDDDD	No changing attributes.
HR15.002A	PROCESS HEATERS/FURNACES	N/A	R7310-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
HR15.002A	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Dc-01	40 CFR Part 60, Subpart Dc	No changing attributes.
HR15.002A	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDDD-01	40 CFR Part 63, Subpart DDDDDD	No changing attributes.
HR15.002B	PROCESS HEATERS/FURNACES	N/A	R7310-02	30 TAC Chapter 117, Subchapter B	No changing attributes.
HR15.002B	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Dc-01	40 CFR Part 60, Subpart Dc	No changing attributes.
HR15.002B	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDDD-01	40 CFR Part 63, Subpart DDDDDD	No changing attributes.
SK25.001	FLARES	N/A	R1111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
SK25.001	FLARES	N/A	R5722-01	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
SK25.001	FLARES	N/A	60A-01	40 CFR Part 60, Subpart A	No changing attributes.
SK25.001	FLARES	N/A	63A-01	40 CFR Part 63, Subpart A	No changing attributes.
SV19.002A	STORAGE TANKS/VESSELS	N/A	R5111-a1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
SV19.002B	STORAGE TANKS/VESSELS	N/A	R5111-a1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
SV19.003A	STORAGE TANKS/VESSELS	N/A	R5111-a1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
SV19.003B	STORAGE TANKS/VESSELS	N/A	R5111-a1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
SV19.006A	STORAGE TANKS/VESSELS	N/A	R5111-a1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
SV19.006B	STORAGE TANKS/VESSELS	N/A	R5111-a1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
EF EMG ENG	EU	R7303-01	EXEMPT	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and 117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified. §117.303(a)(11)(A)-(B)	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
EF EMG ENG	EU	6oIII	PM/NOx/CO/NMHC	40 CFR Part 60, Subpart III	§ 60.4200(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart III	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart III	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart III	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart III	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart III

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)
EF EMG ENG	EU	63ZZZZ-01	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	A new/reconstructed stationary RICE located at an area source, or located at a major source of HAP emissions and is a spark ignition (SI) 2SLB < 500 HP, SI 4 SLB < 250 HP, or 4SRB, compression ignition (CI), emergency or limited use, or which combusts landfill or digester gas at > 10% of the gross heat input < 500 HP must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII, for CI engines or 40 CFR Part 60, Subpart JJJJ, for SI engines.	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)
EF FWP	EU	R7303-01	EXEMPT	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and 117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified. §117.303(a)(11)(A)-(B)	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
EF FWP	EU	6oIII	PM/NOx/ CO/NMHC	40 CFR Part 60, Subpart III	§ 60.4200(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart III	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart III	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart III	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart III	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart III

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)
EF FWP	EU	63ZZZZ-01	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	A new/reconstructed stationary RICE located at an area source, or located at a major source of HAP emissions and is a spark ignition (SI) 2SLB < 500 HP, SI 4 SLB < 250 HP, or 4SRB, compression ignition (CI), emergency or limited use, or which combusts landfill or digester gas at > 10% of the gross heat input < 500 HP must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII, for CI engines or 40 CFR Part 60, Subpart JJJJ, for SI engines.	None	None	None
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(5)	Reciprocating compressors and positive displacement pumps used in natural gas/gasoline processing operations are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(11)	Sampling connection systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet the requirements of 40 CFR §63.166(a) and (b) (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
GRP-EF-FUG	EU	R5352-01	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
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(C) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.352(8) § 115.357(8) § 115.358(c)(1) [G]§ 115.358(h)	No component shall be allowed to have a VOC leak, for more than 15 days, after discovery. If the owner or operator elects to use the alternative work practice in §115.358 of this title, any leak detected as defined in §115.358 of this title, including any leak detected using the alternative work practice on a component that is subject to the requirements of this division but not specifically selected for alternative work practice monitoring.	§ 115.354(1) § 115.354(11) § 115.354(13)(A) § 115.354(13)(B) § 115.354(13)(C) § 115.354(13)(D) § 115.354(13)(E) § 115.354(13)(F) § 115.354(4) § 115.354(5) § 115.354(9) [G]§ 115.355 § 115.358(c)(2) § 115.358(d) [G]§ 115.358(e) § 115.358(f)	§ 115.352(7) § 115.354(13)(D) § 115.354(13)(E) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) [G]§ 115.356(4) § 115.356(5)	[G]§ 115.358(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(9) § 115.357(12) § 115.357(8) § 115.357(9)	No pressure relief valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(8) § 115.357(9)	No open-ended valves or lines shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	No open-ended valves or lines shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(8) § 115.357(9)	No valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	No valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
GRP-EF-FUG	EU	R5352-01	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 dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(4) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	No pump seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP-EF-FUG	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No pump seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	§ 60.5400(f) § 60.5370(b)	Non-VOC/non-wet gas service.	§ 60.5400(f)	§ 60.5400(f)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	[G]§ 60.482-2a § 60.482-1a(a)-(b) § 60.482-9a(a)-(b) [G]§ 60.482-9a(d) § 60.482-9a(f) § 60.5370(b) § 60.5400(a) § 60.5400(d)-(e) § 60.5401(a) § 60.5401(f) § 60.5401(f)(2) § 60.5401(g) § 60.5410(f) § 60.5415(f)	Pumps in light service.	[G]§ 60.482-2a § 60.485(f) § 60.485a(a) [G]§ 60.485a(b) [G]§ 60.485a(c) § 60.485a(d) § 60.485a(d)(2)-(3) [G]§ 60.485a(e)	[G]§ 60.486a(a) § 60.486a(b) § 60.486a(b)(1) § 60.486a(b)(4) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(2) [G]§ 60.486a(e)(4) § 60.486a(e)(7) [G]§ 60.486a(e)(8) [G]§ 60.486a(f) [G]§ 60.486a(h) § 60.486a(j) § 60.5400(e) § 60.5420(c) § 60.5421(a)	§ 60.487a(a) [G]§ 60.487a(b) [G]§ 60.487a(c) § 60.487a(e) § 60.5400(e) § 60.5420(a) § 60.5420(b) [G]§ 60.5420(b)(1) § 60.5422(a)
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	[G]§ 60.482-4a § 60.482-1a(a)-(b) § 60.482-9a(a)-(b) § 60.5370(b) § 60.5400(a) § 60.5400(d)-(e) § 60.5401(a) [G]§ 60.5401(b) § 60.5401(g) § 60.5410(f) § 60.5415(f)	Pressure relief devices in gas/vapor service	[G]§ 60.482-4a § 60.485a(a) [G]§ 60.485a(b) [G]§ 60.485a(c) § 60.485a(d) § 60.485a(d)(2)-(3) § 60.485a(f)	§ 60.486a(a)(1)-(a)(2) § 60.486a(e) § 60.486a(e)(1) § 60.486a(e)(10) § 60.486a(e)(3) [G]§ 60.486a(e)(4) [G]§ 60.486a(e)(8) § 60.486a(j) § 60.5400(e) § 60.5420(c) [G]§ 60.5421	§ 60.487a(a) [G]§ 60.487a(b) [G]§ 60.487a(c) § 60.487a(e) § 60.5400(e) § 60.5420(a) § 60.5420(b) [G]§ 60.5420(b)(1) [G]§ 60.5422

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	[G]§ 60.482-6a § 60.482-1a(a)-(b) § 60.482-9a(a)-(b) [G]§ 60.482-9a(c) § 60.482-9a(e)-(f) § 60.5370(b) § 60.5400(a) § 60.5400(b) § 60.5400(d)-(e) § 60.5401(a) § 60.5401(g) § 60.5410(f) § 60.5415(f)	Open-ended valves or lines.	§ 60.485a(a) [G]§ 60.485a(b) § 60.485a(d) § 60.485a(d)(2)-(3) § 60.485a(f)	§ 60.486a(a)(1)-(a)(2) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8) § 60.486a(j) § 60.5400(e) § 60.5420(c) § 60.5421(a)	§ 60.487a(a) [G]§ 60.487a(b) [G]§ 60.487a(c) § 60.487a(e) § 60.5400(e) § 60.5420(a) § 60.5420(b) [G]§ 60.5420(b)(1) § 60.5422(a)
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	[G]§ 60.482-7a § 60.482-1a(a)-(b) § 60.482-9a(a)-(b) [G]§ 60.482-9a(c) § 60.482-9a(e)-(f) [G]§ 60.483-1a [G]§ 60.483-2a § 60.5370(b) § 60.5400(a) § 60.5400(b) § 60.5400(d)-(e) § 60.5401(a) § 60.5401(f)(2) § 60.5401(g) § 60.5410(f) § 60.5415(f)	Valves in gas/vapor or light liquid service.	[G]§ 60.482-7a [G]§ 60.483-1a § 60.483-2a § 60.485a(a) [G]§ 60.485a(b) [G]§ 60.485a(c) § 60.485a(d) § 60.485a(d)(2)-(3) [G]§ 60.485a(e) § 60.485a(f)	[G]§ 60.486a(a) § 60.486a(b) § 60.486a(b)(1)-(b)(2) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(2) [G]§ 60.486a(e)(8) [G]§ 60.486a(f) [G]§ 60.486a(g) § 60.486a(j) § 60.5400(e) § 60.5420(c) § 60.5421(a)	§ 60.487a(a) [G]§ 60.487a(b) [G]§ 60.487a(c) § 60.487a(d) § 60.487a(e) § 60.5400(e) § 60.5420(a) § 60.5420(b) [G]§ 60.5420(b)(1) § 60.5422(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	[G]§ 60.482-8a § 60.482-1a(a)-(b) [G]§ 60.482-9a § 60.5370(b) § 60.5400(a) § 60.5400(b) § 60.5400(d)-(e) § 60.5401(a) [G]§ 60.5401(f) § 60.5401(g) § 60.5410(f) § 60.5415(f) § 60.5420(a)	Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.	[G]§ 60.482-8a § 60.485a(a) [G]§ 60.485a(b) § 60.485a(d) § 60.485a(d)(2)-(3) [G]§ 60.485a(e) § 60.485a(f)	[G]§ 60.486a(a) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8) [G]§ 60.486a(j) § 60.5400(e) § 60.5420(c) § 60.5421	§ 60.487a(a) [G]§ 60.487a(b) [G]§ 60.487a(c) § 60.487a(e) § 60.5400(e) § 60.5420(a) § 60.5420(b) [G]§ 60.5420(b)(1) [G]§ 60.5422
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	[G]§ 60.482-11a § 60.482-1a(a)-(b) § 60.482-9a(a)-(b) [G]§ 60.482-9a(c) § 60.482-9a(f) § 60.5370(b) § 60.5400(a) § 60.5400(d)-(e) § 60.5401(a) § 60.5401(f) § 60.5401(f)(2) § 60.5401(g) § 60.5410(f) § 60.5415(f) [G]§ 60.5420(b)(1)	Connectors in gas/vapor and in light liquid service.	§ 60.485a(a) [G]§ 60.485a(b) § 60.485a(d) § 60.485a(d)(2)-(3) [G]§ 60.485a(e) § 60.485a(f)	§ 60.486a(a)(1)-(a)(2) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8) [G]§ 60.486a(j) § 60.5400(e) § 60.5420(c) § 60.5421(a)	§ 60.487a(a) [G]§ 60.487a(b) [G]§ 60.487a(c) § 60.487a(e) § 60.5400(e) § 60.5420(a) § 60.5420(b) § 60.5422(a)
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	§ 60.482-10a(d) § 60.482-10a(a) § 60.482-10a(e) § 60.482-10a(m) § 60.482-1a(a)-(b) § 60.5370(b) § 60.5400(a) § 60.5400(d)-(e) § 60.5410(f)	Flares	§ 60.485a(a) [G]§ 60.485a(c) § 60.485a(d) § 60.485a(d)(2)-(3) § 60.485a(f) [G]§ 60.485a(g) § 60.5413(a) § 60.5413(a)(1) [G]§ 60.5413(b) [G]§ 60.5413(d)	§ 60.486a(a)(1)-(a)(2) [G]§ 60.486a(d) § 60.486a(e) § 60.486a(e)(1) § 60.486a(e)(3) § 60.5420(c) § 60.5421(a)	§ 60.487a(a) [G]§ 60.487a(b) [G]§ 60.487a(c) § 60.487a(e) § 60.5420(a) § 60.5420(b) [G]§ 60.5420(b)(1) [G]§ 60.5420(b)(7) § 60.5422(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	[G]§ 60.482-5a § 60.482-1a(a)-(b) § 60.5370(b) § 60.5400(a) § 60.5400(d)-(e) § 60.5401(a) § 60.5401(c) § 60.5401(f) § 60.5401(f)(2) § 60.5401(g) § 60.5410(f) § 60.5415(f)	Sampling connection systems.	[G]§ 60.485(c) § 60.485a(a) § 60.485a(d) § 60.485a(d)(2)-(3) § 60.485a(f)	[G]§ 60.486a(a) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8) [G]§ 60.486a(j) § 60.5400(e) § 60.5420(c) § 60.5421(a)	§ 60.487a(a) [G]§ 60.487a(b) [G]§ 60.487a(c) § 60.487a(e) § 60.5400(e) § 60.5420(a) § 60.5420(b) [G]§ 60.5420(b)(1) § 60.5422(a)
GRP-EF-FUG	EU	600000-01	VOC	40 CFR Part 60, Subpart OOOO	[G]§ 60.482-10a(g) § 60.482-10a(a) § 60.482-10a(h) § 60.482-10a(m) § 60.482-1a(a)-(b) § 60.5370(b) § 60.5400(a) § 60.5400(d)-(e) § 60.5401(a) § 60.5401(f) § 60.5401(f)(2) § 60.5401(g) § 60.5410(f) [G]§ 60.5411(a) § 60.5415(f) [G]§ 60.5416	Closed-vent systems.	[G]§ 60.482-10a(f) § 60.482-10a(i) § 60.485a(a) [G]§ 60.485a(b) § 60.485a(d) § 60.485a(d)(2)-(3) § 60.485a(f)	[G]§ 60.482-10a(j) [G]§ 60.482-10a(k) [G]§ 60.482-10a(l) [G]§ 60.486a(a) [G]§ 60.486a(d) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(j) § 60.5400(e) § 60.5416(b)(13) § 60.5420(c) § 60.5421(a)	§ 60.487a(a) [G]§ 60.487a § 60.5400(e) § 60.5420(a) § 60.5420(b) [G]§ 60.5420(b)(1) [G]§ 60.5420(b)(7) § 60.5422(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
HR15.001A	EU	R7310-01	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(i) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(f)(1) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(2) § 117.335(g) § 117.340(a) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(f)(2) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(i) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(3) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
HR15.001A	EU	60Db-01	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
HR15.001A	EU	60Db-01	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
HR15.001A	EU	60Db-01	NO _x	40 CFR Part 60, Subpart Db	§ 60.44b(l)(2) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities with a low heat release rate and combusting natural gas or distillate oil in excess of 30% of the heat input from the combustion of all fuels, a limit determined by use of the specified formula.	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(4) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f) § 60.48b(g)(1)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(h)(4) § 60.49b(i) § 60.49b(v) § 60.49b(w)

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)
HR15.001A	EU	63DDDD D-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD

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)
HR15.001B	EU	R7310-01	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(i) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(f)(1) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(2) § 117.335(g) § 117.340(a) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(f)(2) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(i) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(3) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
HR15.001B	EU	60Db-01	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
HR15.001B	EU	60Db-01	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
HR15.001B	EU	60Db-01	NO _x	40 CFR Part 60, Subpart Db	§ 60.44b(l)(2) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities with a low heat release rate and combusting natural gas or distillate oil in excess of 30% of the heat input from the combustion of all fuels, a limit determined by use of the specified formula.	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(4) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f) § 60.48b(g)(1)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(h)(4) § 60.49b(i) § 60.49b(v) § 60.49b(w)

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)
HR15.001B	EU	63DDDD D-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
HR15.002A	EU	R7310-01	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(ii) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(2)(C) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.340(p)(2)(A) § 117.340(p)(2)(B) § 117.340(p)(2)(C) § 117.8000(b) § 117.8000(c) § 117.8000(c)(1) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) § 117.340(p)(2)(D) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)

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)
HR15.002A	EU	R7310-01	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120 § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
HR15.002A	EU	60Dc-01	SO ₂	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
HR15.002A	EU	60Dc-01	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
HR15.002A	EU	60Dc-01	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
HR15.002A	EU	63DDDD D-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
HR15.002B	EU	R7310-02	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(ii) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(2)(C) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.340(p)(2)(A) § 117.340(p)(2)(B) § 117.340(p)(2)(C) § 117.8000(b) § 117.8000(c) § 117.8000(c)(1) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) § 117.340(p)(2)(D) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)

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)
HR15.002B	EU	R7310-02	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120 § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
HR15.002B	EU	60Dc-01	SO ₂	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
HR15.002B	EU	60Dc-01	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
HR15.002B	EU	60Dc-01	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
HR15.002B	EU	63DDDD D-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
SK25.001	EU	R1111-01	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, 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

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)
SK25.001	EP	R5722-01	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(d) § 115.722(d)(1) § 115.722(d)(2) [G]§ 115.725(d)(1) § 115.725(d)(2) § 115.725(d)(2)(A)(i) [G]§ 115.725(d)(2)(A)(ii) § 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)	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) [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)(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)
SK25.001	CD	60A-01	OPACITY	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(5) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(6)	None	None
SK25.001	CD	63A-01	OPACITY	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(8)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5)	None	None

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)
SV19.002A	EU	R5111-a1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
SV19.002B	EU	R5111-a1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
SV19.003A	EU	R5111-a1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
SV19.003B	EU	R5111-a1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
SV19.006A	EU	R5111-a1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
SV19.006B	EU	R5111-a1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None

Permit Shield

Permit Shield44

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		
GRP-EF-COL	EF DC TA, EF DC TB,	30 TAC Chapter 115, Vent Gas Controls	These units do not have a direct or indirect vent stream to the atmosphere.
GRP-EF-COL	EF DC TA, EF DC TB,	40 CFR Part 60, Subpart NNN	This distillation column does not have a direct or indirect vent stream to the atmosphere.
HT16.028A	N/A	30 TAC Chapter 115, HRVOC Cooling Towers	The cooling tower heat exchange system does not emit or have the potential to emit HRVOC
HT16.028A	N/A	40 CFR Part 63, Subpart Q	This source is not an industrial process cooling tower operated with chromium-based water treatment chemicals
HT16.028B	N/A	30 TAC Chapter 115, HRVOC Cooling Towers	The cooling tower heat exchange system does not emit or have the potential to emit HRVOC
HT16.028B	N/A	40 CFR Part 63, Subpart Q	This source is not an industrial process cooling tower operated with chromium-based water treatment chemicals
HT16.029A	N/A	30 TAC Chapter 115, HRVOC Cooling Towers	The cooling tower heat exchange system does not emit or have the potential to emit HRVOC
HT16.029A	N/A	40 CFR Part 63, Subpart Q	This source is not an industrial process cooling tower operated with chromium-based water treatment chemicals

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		
HT16.029B	N/A	30 TAC Chapter 115, HRVOC Cooling Towers	The cooling tower heat exchange system does not emit or have the potential to emit HRVOC
HT16.029B	N/A	40 CFR Part 63, Subpart Q	This source is not an industrial process cooling tower operated with chromium-based water treatment chemicals
SV19.002A	N/A	40 CFR Part 60, Subpart Kb	Storage vessel capacity is less than 19,800 gallons
SV19.002A	N/A	40 CFR Part 63, Subpart EEEE	Liquids handled at the facility are not Organic Liquids as defined in §63.2406 based on the HAP content criteria.
SV19.002B	N/A	40 CFR Part 60, Subpart Kb	Storage vessel capacity is less than 19,800 gallons
SV19.002B	N/A	40 CFR Part 63, Subpart EEEE	Liquids handled at the facility are not Organic Liquids as defined in §63.2406 based on the HAP content criteria.
SV19.003A	N/A	40 CFR Part 60, Subpart Kb	Storage vessel capacity is less than 19,800 gallons
SV19.003A	N/A	40 CFR Part 63, Subpart EEEE	Liquids handled at the facility are not Organic Liquids as defined in §63.2406 based on the HAP content criteria.

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		
SV19.003B	N/A	40 CFR Part 60, Subpart Kb	Storage vessel capacity is less than 19,800 gallons
SV19.003B	N/A	40 CFR Part 63, Subpart EEEE	Liquids handled at the facility are not Organic Liquids as defined in §63.2406 based on the HAP content criteria.
SV19.006A	N/A	40 CFR Part 60, Subpart Kb	Storage vessel capacity is less than 19,800 gallons
SV19.006A	N/A	40 CFR Part 63, Subpart EEEE	Liquids handled at the facility are not Organic Liquids as defined in §63.2406 based on the HAP content criteria.
SV19.006B	N/A	40 CFR Part 60, Subpart Kb	Storage vessel capacity is less than 19,800 gallons
SV19.006B	N/A	40 CFR Part 63, Subpart EEEE	Liquids handled at the facility are not Organic Liquids as defined in §63.2406 based on the HAP content criteria.

New Source Review Authorization References

New Source Review Authorization References48

New Source Review Authorization References by Emission Unit..... 49

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.: PSDTX1286	Issuance Date: 04/05/2016
Nonattainment (NA) Permits	
NA Permit No.: N154	Issuance Date: 04/05/2016
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.: 100091	Issuance Date: 04/05/2016
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.511	Version No./Date: 09/04/2000

New Source Review Authorization References by Emissions Unit

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

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
EF DC TA	DISTILLATION COLUMN TRAIN FRAC A	100091, N154, PSDTX1286
EF DC TB	DISTILLATION COLUMN TRAIN FRAC B	100091, N154, PSDTX1286
EF EMG ENG	EF EMERGENCY ENGINE	106.511/09/04/2000
EF FWP	EF FIRE WATER PUMP	106.511/09/04/2000
FRAC F EFA	EF FRAC A PROCESS FUGITIVES	100091, N154, PSDTX1286
FRAC F EFB	EF FRAC B PROCESS FUGITIVES	100091, N154, PSDTX1286
HR15.001A	EF HOT OIL HEATER	100091, N154, PSDTX1286
HR15.001B	EF HOT OIL HEATER	100091, N154, PSDTX1286
HR15.002A	EF REGENERANT HEATER	100091, N154, PSDTX1286
HR15.002B	EF REGENERANT HEATER	100091, N154, PSDTX1286
HT16.028A	EF REFRIGERANT CONDENSER	100091, N154, PSDTX1286
HT16.028B	EF REFRIGERANT CONDENSER	100091, N154, PSDTX1286
HT16.029A	EF REFLUX COOLER	100091, N154, PSDTX1286
HT16.029B	EF REFLUX COOLER	100091, N154, PSDTX1286
SK25.001	FLARE	100091, N154, PSDTX1286
SV19.002A	EF AMINE TANK	100091, N154, PSDTX1286
SV19.002B	EF AMINE TANK	100091, N154, PSDTX1286
SV19.003A	EF LEAN AMINE TANK	100091, N154, PSDTX1286

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
SV19.003B	EF LEAN AMINE TANK	100091, N154, PSDTX1286
SV19.006A	EF WASTEWATER TANK	100091, N154, PSDTX1286
SV19.006B	EF WASTEWATER TANK	100091, N154, PSDTX1286

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations issued by EPA for emission units listed elsewhere in this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
HR15.001A	EF HOT OIL HEATER	PSDTX1286GHG
HR15.001B	EF HOT OIL HEATER	PSDTX1286GHG
HR15.002A	EF REGENERANT HEATER	PSDTX1286GHG
HR15.002B	EF REGENERANT HEATER	PSDTX1286GHG
SK25.001	FLARE	PSDTX1286GHG
FRAC F EFa	EF FRAC A PROCESS FUGITIVES	PSDTX1286GHG
FRAC F EFb	EF FRAC B PROCESS FUGITIVES	PSDTX1286GHG

Appendix A

Acronym List 53

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 ₂ S	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

Major NSR Summary Table..... 55

Major NSR Summary Table

Permit Number: 100091, PSDTX1286, and N154					Issuance Date: April 5, 2016		
Emission Point Number ¹ (EPN)	Source Name ²	Air Contaminant Name ³	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	(TPY) ⁴	Spec. Cond.	Spec. Cond.	Spec. Cond.
HR15001A	Hot Oil Heater	NO _x	4.00	15.33	3,10, 11, 12, 13	3,10, 11, 12, 13, 15	3,12, 13
		CO	12.43	27.23			
		VOC	0.28	1.23			
		PM/PM ₁₀ /PM _{2.5}	0.56	2.45			
		SO ₂	0.35	1.52			
HR15001B	Hot Oil Heater	NO _x	4.00	15.33	3,10, 11,12, 13	3,10, 11, 12, 13, 15	3,12, 13
		CO	12.43	27.23			
		VOC	0.28	1.23			
		PM/PM ₁₀ /PM _{2.5}	0.56	2.45			
		SO ₂	0.35	1.52			
HR15002A	Regenerant Heater	NO _x	1.00	3.12	3,10, 11	3,10, 11, 15,	3,15
		CO	3.80	5.54			
		VOC	0.06	0.25			
		PM/PM ₁₀ /PM _{2.5}	0.14	0.62			
		SO ₂	0.07	0.31			
HR15002B	Regenerant Heater	NO _x	1.00	3.12	3,10, 11	3,10, 11, 15 ,	3
		CO	3.80	5.54			
		VOC	0.06	0.25			
		PM/PM ₁₀ /PM _{2.5}	0.14	0.62			
		SO ₂	0.07	0.31			
FRAC F EFa	Frac A Process Fugitives	VOC ⁵	0.94	4.14	3,6	3,6,15,	3,6
		H ₂ S	0.01	0.01			
FRAC F EFb	Frac B Process Fugitives	VOC ⁵	0.93	4.07	3,6	3,6,5	3,6
		H ₂ S	0.01	0.01			
HT16.028A	Refrigerant Condenser	PM	0.33	1.44	14	14, 15	-
		PM ₁₀	0.22	0.99			
		PM _{2.5}	0.09	0.38			
HT16.028B	Refrigerant Condenser	PM	0.33	1.44	14	14, 15	-
		PM ₁₀	0.22	0.99			
		PM _{2.5}	0.09	0.38			
HT16.029A	Reflux Cooler	PM	0.08	0.34	-	15	-
		PM ₁₀	0.05	0.23			
		PM _{2.5}	0.02	0.09			
HT16.029B	Reflux Cooler	PM	0.08	0.34	-	15	-
		PM ₁₀	0.05	0.23			
		PM _{2.5}	0.02	0.09			

Major NSR Summary Table

Permit Number: 100091, PSDTX1286, and N154					Issuance Date: April 5, 2016		
Emission Point Number ¹ (EPN)	Source Name ²	Air Contaminant Name ³	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	(TPY) ⁴	Spec. Cond.	Spec. Cond.	Spec. Cond.
SV19.003A	Lean Amine Tank	VOC	0.01	0.01	-	15	-
SV19.003B	Lean Amine Tank	VOC	0.01	0.01	-	15	-
SV19.002A	Amine Tank	VOC	0.01	0.01	-	15	-
SV19.002B	Amine Tank	VOC	0.01	0.01	-	15	-
SV19.006A	Wastewater Tank	VOC	0.36	0.03	-	15	-
SV19.006B	Wastewater Tank	VOC	0.36	0.03	-	15	-
SK25.001	Flare	NO _x	26.87	10.34	3, 7, 8	3, 7, 8, 9, 15	3
		CO	41.09	30.04			
		VOC	20.68	6.77			
		SO ₂	1.44	3.00			
		H ₂ S	0.02	0.03			

Footnotes:

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

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

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

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented

PM₁₀ - total particulate matter, suspended in the atmosphere, 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

H₂S - hydrogen sulfide

⁴ Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.

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

Major NSR Summary Table

Permit Number: PSD-TX-1286-GHG					Issuance Date: October 12, 2012			
Emission Point No.		Source Name	Air Contaminant Name	Emission Rates ¹		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
FIN	EPN			TPY ²	TPY CO ₂ e ^{2, 3}	Spec. Cond.	Spec. Cond.	Spec. Cond.
HR15.001A	HR15.001A	Hot Oil Heater	CO ₂ CH ₄ N ₂ O	72,987 1.35 0.14	73,058	III.A.1, III.B.1, III.B.2, V.A, V.B, V.C, V.L, V.M	III.A.1, III.B.1, IV.1, IV.3, IV.4, V.A, V.H	IV.5, V.B, V.C, V.D, V.I
HR15.001B	HR15.001B	Hot Oil Heater	CO ₂ CH ₄ N ₂ O	72,987 1.35 0.14	73,058	III.A.1, III.B.1, III.B.2, V.A, V.B, V.C, V.L, V.M	III.A.1, III.B.1, IV.1, IV.3, IV.4, V.A, V.H	IV.5, V.B, V.C, V.D, V.I
HR15.002A	HR15.002A	Regenerant Heater	CO ₂ CH ₄ N ₂ O	14,858 0.28 0.03	14,872	III.A.1, III.B.1, III.B.2, V.A, V.B, V.C, V.L, V.M	III.A.1, III.B.1, IV.1, IV.3, IV.4, V.A, V.H	IV.5, V.B, V.C, V.D, V.I
HR15.002B	HR15.002B	Regenerant Heater	CO ₂ CH ₄ N ₂ O	14,858 0.28 0.03	14,872	III.A.1, III.B.1, III.B.2, V.A, V.B, V.C, V.L, V.M	III.A.1, III.B.1, IV.1, IV.3, IV.4, V.A, V.H	IV.5, V.B, V.C, V.D, V.I
SK25.001	SK25.001	Flare	CO ₂ CH ₄ N ₂ O	62,494 0.68 0.11	62,542	III.A.2, V.F, V.G, V.L, V.M	III.A.2, IV.1, IV.3, IV.4, V.H	IV.5, V.I
FRAC F EFa and FRAC F EFb	FRAC F EFa and FRAC F EFb	Fugitive Process Emissions	CH ₄	Not Applicable	Not Applicable	III.A.3	III.A.3, IV.2, IV.3, IV.4,	IV.5, V.B
Totals ⁴			CO ₂ CH ₄ N ₂ O	238,186 4.99 0.43	238,425			

Footnotes:

- Compliance with the annual emission limits (tons per year) is based on a 12-month rolling basis.
- The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions only from the facility during all operations and include MSS activities.
- Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
- The total emissions for CH₄ and CO₂e include the PTE for process fugitive emissions of CH₄. These totals are given for informational purposes only and do not constitute emission limits



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Enterprise Products Operating LLC
Authorizing the Construction and Operation of
Enterprise Mont Belvieu Complex
Located at Mont Belvieu, Chambers County, Texas
Latitude 29° 51' 19" Longitude -94° 54' 44"

Permits: 100091, N154, and PSDTX1286

Amendment Date: April 5, 2016

Expiration Date: November 14, 2022

A handwritten signature in black ink, appearing to read "R. D. A. Hyle".

For the Commission

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

facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled “Emission Sources--Maximum Allowable Emission Rates.” [30 TAC § 116.115(b)(2)(F)]¹
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to “air pollution” as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

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

Special Conditions

Permit Numbers 100091, PSDTX1286, and N154

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT) and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.
2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

Federal Applicability

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60): **(04/16)**
 - A. Subpart A, General Provisions.
 - B. Subpart Db, Standards of Performance for Industrial Steam Generating Units.
 - C. Subpart Dc, Standards of Performance for Small Industrial – Commercial-Institutional Steam Generating Units.
 - D. Subpart KKK, Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011.
4. These facilities shall comply with all applicable requirements of the U.S. EPA regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63: **(04/16)**
 - A. Subpart A, General Provisions.
 - B. Subparts F, G, H, and I collectively known as the National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical
5. If any condition of this permit is more stringent than the applicable regulations in Special Condition Nos. 3 and 4, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated. **(04/16)**

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

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

- A. The requirements of paragraphs F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

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

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

Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through. In addition, all connectors shall be monitored by leak-checking for fugitive emissions at least quarterly using an

approved gas analyzer with a directed maintenance program in accordance with items F thru J of this special condition.

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

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

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

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

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

Where:

- Cl = the number of connectors found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.
- Cs = the number of connectors for which repair has been delayed and are listed on the facility shutdown log.
- Ct = the total number of connectors in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including non-accessible and unsafe to monitor connectors.
- Cp = the percentage of leaking connectors for the monitoring period.

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

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

repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

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

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

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

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

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

- H. Damaged or leaking valves, connectors, compressor seals, pump seals, and agitator seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv)

or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC § 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

- I. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- J. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), and does not constitute approval of alternative standards for these regulations.
- K. In lieu of the monitoring frequency specified in paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

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

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

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

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

Where:

- Vl = the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.
- Vs = the number of valves for which repair has been delayed and are listed on the facility shutdown log.
- Vt = the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe to monitor valves.
- Vp = the percentage of leaking valves for the monitoring period.
- M. Any component found to be leaking by physical inspection (i.e., sight, sound, or smell) shall be repaired or monitored with an approved gas analyzer within 15 days to determine whether the component is leaking in excess of 500 ppmv of VOC. If the component is found to be leaking in excess of 500 ppmv of VOC, it shall be subject to the repair and replacement requirements contained in this special condition.

Flare Provisions

7. The Flare, EPN EPN SK25.001 shall achieve a 99.5 percent destruction rate efficiency (DRE). The flare shall be designed and operated in accordance with the following requirements: **(04/16)**
- A. The flare systems shall be designed such that the combined assist natural gas and waste stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity at all times when emissions may be vented to them.
- The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office to demonstrate compliance with these requirements.
- B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor and be equipped with an automatic pilot flame re-ignition system. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications
- C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. This shall be ensured by the use of air assist to the flare using a variable frequency drive blower.

- D. The permit holder shall install, calibrate, operate and maintain a continuous flow monitor and composition analyzer that provides a record of the vent stream flow, total VOC composition, and Btu content to the flare authorized in this permit. Each flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to each flare inlet such that the total vent stream to each flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be $\pm 5.0\%$, temperature monitor shall be $\pm 2.0\%$ at absolute temperature, and pressure monitor shall be ± 5.0 mm Hg;

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

The monitors and analyzers shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes. Hourly mass emission rates shall be determined and recorded using the above readings and the emission factors used in the initial permit application, PI-1 dated December 16, 2011.

8. The following requirements apply to capture systems for the Flare, EPN SK25.001.
- A. If used to control pollutants other than particulate, either:
- (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or
 - (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
- B. 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 the position of the valves and the condition of the car seals prevent flow out the bypass.

A deviation shall be reported if the monitoring or inspections indicate bypass of the control device.

- 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.
9. The frequency and duration of emission to the Flare, EPN SK25.001 from the following operations are limited as follows: **(04/16)**

Operation	Frequency Per Year	Duration of Each Event (hours)*
Y-Grade Feed Prefilter Change	4	1
Feed Coalescer Cleaning	2	4
Stage 1 Amine Coalescer Cleaning	2	5
Stage 2 Amine Coalescer Cleaning	2	5
Feed Dehydrator Internal Packing Change	4	5

* The duration of each event may exceed the listed time, provided the represented emission rates are not exceeded.

Heaters

10. Gaseous fuel fired in heaters shall contain no more than 5 grains of total sulfur per 100 dry standard cubic feet (dscf). The following heaters shall only be fired on natural gas, ethane, PSA off gas, methane-rich fuel gas from fuel header, or mixtures of those fuels: **(04/16)**

Source Name	EPN	Max Hourly Rate (MMBtu/hr)
Hot Oil Heater A	HR15.001A	140
Hot Oil Heater B	HR15.001B	140
Regenerant Heater A	HR15.002A	28
Regenerant Heater B	HR15002B	28

The fuel gases shall be sampled every 6 months to determine sulfur content and net heating value. Test results from the fuel supplier may be used to satisfy these requirements.

If previous sulfur content analyses have shown compliance for four consecutive periods, testing may be stopped but shall resume if there is reasonable belief that the sulfur content of a fuel gas has substantially changed. Sampling performed prior to the November 17, 2014 permit may be used in the demonstration.

11. Hot Oil Heaters A and B are subject to the limitations below:
 - A. Hot Oil heaters A and B shall each maintain the following average hourly nitrogen oxide (NO_x) and carbon monoxide (CO) emission limits on 12-month rolling average basis, excluding periods of planned maintenance start-up and shutdown:
NO_x less than or equal to 0.025 lb/MMBtu.
CO less than or equal 50 ppmvd CO (corrected to 3 percent O₂).
 - B. The permit holder shall install and operate a fuel flow meter to measure the gas fuel usage for each heater. The monitored data shall be reduced to an hourly average flow rate at least once every day, using a minimum of four equally-spaced data points from each one-hour period. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or at least annually, whichever is more frequent, and shall be accurate to within 5 percent. In lieu of monitoring fuel flow, the permit holder may monitor stack exhaust flow using the flow monitoring specifications of 40 Code of Federal Regulations (CFR) Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.
 - C. Each Hot Oil heater shall have a continuous emission monitoring system (CEMS) as required in Special Condition No. 12.

Hot Oil Heaters A and B CEMS

12. The permit holder shall install, calibrate, and maintain a CEMS to measure and record the in-stack concentration of CO, NO_x, and O₂ from Hot Oil Heaters A and B.
 - A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60), Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division for requirements to be met.
 - B. Section 1 below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; section 2 applies to all other sources:

- (1) The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, ' 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.
- (2) The system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

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

All CGA exceedances of +15 percent accuracy indicate that the CEMS is out of control.

- C. The monitoring data shall be reduced to hourly average concentrations at least once 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 lbs/hr at least once every week as follows:

The measured hourly average concentration from the CEMS shall be multiplied by the flow rate measured during the latest stack test performed in accordance with Special Condition No. 10 to determine the hourly emission rate or by using "F" Factors for Various Fuels under 40 CFR Part 60, Appendix A, Method 19.

- D. All monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.
- E. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.
- F. Quality-assured (or valid) data must be generated when the sources with installed CEMS are operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the the sources with installed CEMS operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgement and the methods used recorded. Options to increase system reliability to an acceptable

value, including a redundant CEMS, may be required by the TCEQ Regional Manager.

Initial Stack Sampling

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

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

- A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:
 - (1) Proposed date for pretest meeting.
 - (2) Date sampling will occur.
 - (3) Name of firm conducting sampling.
 - (4) Type of sampling equipment to be used.
 - (5) Method or procedure to be used in sampling.
 - (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.
 - (7) Procedure/parameters to be used to determine worst case emissions during the sampling period.

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

- B. Air contaminants emitted from the Hot Oil Heaters A and B to be tested for include (but are not limited to) CO, NO_x, and O₂.
- C. Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.

- D. The heaters being sampled shall operate at rates expected to cause maximum emissions for each air contaminant required to be tested during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.
- E. Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:
 - One copy to the appropriate TCEQ Regional Office.
 - One copy to each local air pollution control program.
- F. Sampling ports and platform(s) shall be incorporated into the design of the Hot Oil Heaters according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director.

Wet Surface Air Coolers (WSACs)

- 14. Cooling water shall be sampled once a week for total dissolved solids (TDS) and once a day for conductivity from the cooling tower water used in the WSACs designated as EPNs HT16.028A and HT16.028B. The TDS is limited to a maximum of 3,500 parts per million by weight (ppmw) in the recirculating cooling water and in the makeup cooling water supplied to this cooling water circulation system.

Dissolved solids in the cooling water drift are considered to be emitted as PM₁₀. The data shall result from collection of water samples from the cooling tower feed water and represent the water being cooled in the tower. Water samples should be capped upon collection and transferred to a laboratory area for analysis. The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, and SM 2540 C (SM - 19th edition of Standard Methods for Examination of Water). The analysis method for conductivity shall be ASTM D1125-95A and SM2510 B. Use of an alternative method shall be approved by the TCEQ Regional Director prior to its implementation.

The Cooling Towers designated as EPNs HT16.028A and HT16.028B shall be equipped with mist eliminators to meet a drift value of 0.001 percent for particulate emissions.

Netting and Offsets

15. This permit is conditioned on the completion of all emission reduction projects represented in the Table 3F, Project Contemporaneous Changes submitted August 24, 2015 associated with the amendment application PI-1 dated October 7, 2013 (see Permit Number 100091 application file), and listed below. **(04/16)**

Project Date	Project Name	Pollutant	Creditable Reduction (tpy)
June 30, 2013	Cogen2 Turbine 2 Upgrade	NO _x	12.64
June 30, 2013	Cogen2 Turbine 3 Upgrade	NO _x	11.93
May 2, 2013	Upgrade WTX Centaur Turbine 1	NO _x	12.61
May 11, 2013	Upgrade WTX Centaur Turbine 2	NO _x	12.61

This reduction of emissions shall occur not later than the commencement of operation of the permitted facilities represented by this permit. The holder of this permit shall maintain records of the emission reductions and provide access and/or copies upon request to the TCEQ Executive Director, or representatives, or any local air pollution control program having jurisdiction. Construction of these facilities must commence as defined in 40 CFR 52.21(b)(9) Prevention of Significant Deterioration or 40 CFR 51.165(a)(1)(xvi) (nonattainment) no later than five years after the reductions are actually accomplished, or the above reductions are no longer creditable and the permit is automatically void.

16. This Nonattainment New Source Review (NNSR) permit is issued/approved based on the requirement that the permit holder offset the project emission increase for facilities authorized by this permit prior to the commencement of operation, through participation in the TCEQ Emission Banking and Trading (EBT) Program in accordance with the rules in 30 TAC Chapter 101, Subchapter H. **(04/16)**
17. The permit holder shall use 23.43 tons per year (tpy) of VOC credits to offset the 18.02 tpy VOC project emission increase for the facilities authorized by this permit at a ratio of 1.3 to 1.0. **(04/16)**
18. Prior to the commencement of operation, the permit holder shall obtain approval from the TCEQ EBT Program for the credits being used and then submit a permit alteration or amendment request to the TCEQ Air Permits Division (and copy the TCEQ Regional Office) to identify approved credits by TCEQ credit certificate number. **(04/16)**

Dated: April 5, 2016

Emission Sources - Maximum Allowable Emission Rates

Permit Number 100091, PSDTX1286, and N154

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)
HR15001A	Hot Oil Heater	NO _x	4.00	15.33
		CO	12.43	27.23
		VOC	0.28	1.23
		PM	0.56	2.45
		PM ₁₀	0.56	2.45
		PM _{2.5}	0.56	2.45
		SO ₂	0.35	1.52
HR15001B	Hot Oil Heater	NO _x	4.00	15.33
		CO	12.43	27.23
		VOC	0.28	1.23
		PM	0.56	2.45
		PM ₁₀	0.56	2.45
		PM _{2.5}	0.56	2.45
		SO ₂	0.35	1.52
HR15002A	Regenerant Heater	NO _x	1.00	3.12
		CO	3.80	5.54
		VOC	0.06	0.25
		PM	0.14	0.62
		PM ₁₀	0.14	0.62
		PM _{2.5}	0.14	0.62
		SO ₂	0.07	0.31

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
HR15002B	Regenerant Heater	NO _x	1.00	3.12
		CO	3.80	5.54
		VOC	0.06	0.25
		PM	0.14	0.62
		PM ₁₀	0.14	0.62
		PM _{2.5}	0.14	0.62
		SO ₂	0.07	0.31
FRAC F EFa	Frac A Process Fugitives (5)	VOC	0.94	4.14
		H ₂ S	0.01	0.01
FRAC F EFb	Frac B Process Fugitives (5)	VOC	0.93	4.07
		H ₂ S	0.01	0.01
HT16.028A	Refrigerant Condenser	PM	0.33	1.44
		PM ₁₀	0.22	0.99
		PM _{2.5}	0.09	0.38
HT16.028B	Refrigerant Condenser	PM	0.33	1.44
		PM ₁₀	0.22	0.99
		PM _{2.5}	0.09	0.38
HT16.029A	Reflux Cooler	PM	0.08	0.34
		PM ₁₀	0.05	0.23
		PM _{2.5}	0.02	0.09
HT16.029B	Reflux Cooler	PM	0.08	0.34
		PM ₁₀	0.05	0.23
		PM _{2.5}	0.02	0.09
SV19.003A	Lean Amine Tank	VOC	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
SV19.003B	Lean Amine Tank	VOC	<0.01	<0.01
SV19.002A	Amine Tank	VOC	<0.01	<0.01
SV19.002B	Amine Tank	VOC	<0.01	<0.01
SV19.006A	Wastewater Tank	VOC	0.36	0.03
SV19.006B	Wastewater Tank	VOC	0.36	0.03
SK25.001	Flare	NO _x	26.87	10.34
		CO	41.09	30.04
		VOC	20.68	6.77
		SO ₂	1.44	3.00
		H ₂ S	0.02	0.03

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO_x - total oxides of nitrogen
- SO₂ - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- H₂S - hydrogen sulfide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: April 5, 2016

**PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
FOR GREENHOUSE GAS EMISSIONS
ISSUED PURSUANT TO THE REQUIREMENTS AT 40 CFR § 52.21**

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6

PSD PERMIT NUMBER: PSD-TX-1286-GHG

PERMITTEE: Enterprise Products Operating LLC
1100 Louisiana Street
Houston, TX 77002

MAILING ADDRESS: P.O. Box 4324
Houston, TX 77210

FACILITY NAME: Eagleford Fractionation and DIB Units
Mont Belvieu Complex

FACILITY LOCATION: 10207 FM 1942
Mont Belvieu, TX 77580

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, Part C (42 U.S.C. Section 7470, *et. Seq.*), and the Code of Federal Regulations (CFR) Title 40, Section 52.21, and the Federal Implementation Plan at 40 CFR § 52.2305 (effective May 1, 2011 and published at 76 FR 25178), the U.S. Environmental Protection Agency, Region 6 is issuing a *Prevention of Significant Deterioration* (PSD) permit to Enterprise Products Operating LLC (Enterprise) for Greenhouse Gas (GHG) emissions. The Permit applies to the addition of a two new natural gas liquids (NGL) fractionation (Eagleford Fractionation) units and a deisobutanizer (DIB) unit at their existing facility located in Mont Belvieu, Texas.

Enterprise is authorized to construct two new NGL fractionation units and a DIB unit as described herein, in accordance with the permit application (and plans submitted with the permit application), the federal PSD regulations at 40 CFR § 52.21, and other terms and conditions set forth in this PSD permit in conjunction with the corresponding Texas Commission on Environmental Quality (TCEQ) PSD permit No. PSD-TX-1286. Failure to comply with any condition or term set forth in this PSD Permit may result in enforcement action pursuant to Section 113 of the Clean Air Act (CAA). This PSD Permit does not relieve Enterprise of the responsibility to comply with any other applicable provisions of the CAA (including applicable implementing regulations in 40 CFR Parts 51, 52, 60, 61, 72 through 75, and 98) or other federal and state requirements (including the state PSD program that remains under approval at 40 CFR § 52.2303).

In accordance with 40 CFR §124.15(b)(3), this PSD Permit becomes effective immediately upon issuance of this final decision.



Carl E. Edlund, Director
Multimedia Planning and Permitting Division

10/12/12

Date

**Enterprise Products Operating LLC (PSD-TX-1286-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Final Permit Conditions**

PROJECT DESCRIPTION

Following the construction authorized by this permit, the facility will add two new natural gas liquids (NGL) fractionation (Eagleford Fractionation) units and a deisobutanizer (DIB) unit at the Enterprise Mont Belvieu Complex in Mont Belvieu, Texas. The Eagleford Fractionation units will be capable of separating an NGL feed into separate ethane, propane, butane, and gasoline fractions. Each fractionation unit will have a nominal feed capacity of 110,000 barrels per day. The DIB unit will be capable of separating isobutene and normal butane from mixed butane streams. The Eagleford Fractionation and DIB unit will consist of two fractionation unit deethanizer distillation columns, two fractionation unit debutanizer distillation columns, two depropanizer columns, two hot oil heaters, two regenerant gas heaters, one flare, one deisobutanizer distillation column, and supporting equipment.

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit.

FIN	EPN	Description
HR15.001A HR15.001B	HR15.001A HR15.001B	2 Hot Oil Heaters (Combustion Unit). Each unit has a maximum design heat input rate of 140 MMbtu/hr, and is fired with natural gas.
HR15.002A HR15.002B	HR15.002A HR15.002B	2 Regenerant Heaters (Combustion Units). Each unit has a maximum design heat input rate of 28.5 MMbtu/hr, and is fired with natural gas.
SK25.001	SK25.001	Flare to control emissions from DIB and Fractionation unit process vents
FRAC F EFa FRAC F EFb	FRAC F EFa FRAC F EFb	Process Fugitives

I. GENERAL PERMIT CONDITIONS

A. PERMIT EXPIRATION

As provided in 40 CFR §52.21(r), this PSD Permit shall become invalid if construction:

1. is not commenced (as defined in 40 CFR §52.21(b)(9)) within 18 months after the approval takes effect; or
2. is discontinued for a period of 18 months or more; or
3. is not completed within a reasonable time.

Pursuant to 40 CFR §52.21(r), EPA may extend the 18-month period upon a written satisfactory showing that an extension is justified.

B. PERMIT NOTIFICATION REQUIREMENTS

Permittee shall notify EPA Region 6 in writing or by electronic mail of the:

1. date construction is commenced, postmarked within 30 days of such date;
2. actual date of initial startup, as defined in 40 CFR §60.2, postmarked within 15 days of such date; and
3. date upon which initial performance tests will commence, in accordance with the provisions of Section V, postmarked not less than 30 days prior to such date. Notification may be provided with the submittal of the performance test protocol required pursuant to Condition V.B.

C. FACILITY OPERATION

At all times, including periods of startup, shutdown, and maintenance, Permittee shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the EPA, which may include, but is not limited to, monitoring results, review of operating maintenance procedures and inspection of the facility.

D. MALFUNCTION REPORTING

1. Permittee shall notify EPA by mail within 48 hours following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in GHG emissions above the allowable emission limits stated in Section II and III of this permit.
2. Within 10 days of the restoration of normal operations after any failure described in I.D.1., Permittee shall provide a written supplement to the initial notification that includes a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Section II and III, and the methods utilized to mitigate emissions and restore normal operations.

3. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or any law or regulation such malfunction may cause.

E. RIGHT OF ENTRY

EPA authorized representatives, upon the presentation of credentials, shall be permitted:

1. to enter the premises where the facility is located or where any records are required to be kept under the terms and conditions of this PSD Permit;
2. during normal business hours, to have access to and to copy any records required to be kept under the terms and conditions of this PSD Permit;
3. to inspect any equipment, operation, or method subject to requirements in this PSD Permit; and,
4. to sample materials and emissions from the source(s).

F. TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the facilities to be constructed, this PSD Permit shall be binding on all subsequent owners and operators. Permittee shall notify the succeeding owner and operator of the existence of the PSD Permit and its conditions by letter; a copy of the letter shall be forwarded to EPA Region 6 within thirty days of the letter signature.

G. SEVERABILITY

The provisions of this PSD Permit are severable, and, if any provision of the PSD Permit is held invalid, the remainder of this PSD Permit shall not be affected.

H. ADHERENCE TO APPLICATION AND COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS

Permittee shall construct this project in compliance with this PSD Permit, the application on which this permit is based, the TCEQ PSD Permit PSD-TX-1286 (when issued) and all other applicable federal, state, and local air quality regulations. This PSD permit does not release the Permittee from any liability for compliance with other applicable federal, state and local environmental laws and regulations, including the Clean Air Act.

I. ACRONYMS AND ABBREVIATIONS

API	American Petroleum Institute
BACT	Best Available Control Technology
CAA	Clean Air Act
CC	Carbon Content
CCS	Carbon Capture and Sequestration
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CH ₄	Methane
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DIB	Deisobutanizer
dscf	Dry Standard Cubic Foot
EF	Emission Factor
EPN	Emission Point Number
FIN	Facility Identification Number
FR	Federal Register
GHG	Greenhouse Gas
gr	Grains
GWP	Global Warming Potential
HHV	High Heating Value
hr	Hour
LAER	Lowest Achievable Emission Rate
lb	Pound
LDAR	Leak Detection and Repair
MMBtu	Million British Thermal Units
MSS	Maintenance, Start-up and Shutdown
NNSR	Nonattainment New Source Review
N ₂ O	Nitrous Oxides
NSPS	New Source Performance Standards
PSD	Prevention of Significant Deterioration
QA/QC	Quality Assurance and/or Quality Control
SCFH	Standard Cubic Feet per Hour
SCR	Selective Catalytic Reduction
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPY	Tons per Year
USC	United States Code
VOC	Volatile Organic Compound

II. Annual Emission Limits

Annual emissions, in tons per year (TPY) calculated on a 12-month rolling basis, shall not exceed the following:

Table 1. Annual Emission Limits¹

FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{2,3}	BACT Requirements
				TPY ²		
HR15.001A	HR15.001A	Hot Oil Heater	CO ₂	72,987	73,058	Minimum Thermal Efficiency of 85%. See permit condition III.A.1.r.
			CH ₄	1.35		
			N ₂ O	0.14		
HR15.001B	HR15.001B	Hot Oil Heater	CO ₂	72,987	73,058	Minimum Thermal Efficiency of 85%. See permit condition III.A.1.r.
			CH ₄	1.35		
			N ₂ O	0.14		
HR15.002A	HR15.002A	Regenerant Heater	CO ₂	14,858	14,872	Use of Good Combustion Practices. See permit condition III.A.1.d. through III.A.1.j.
			CH ₄	0.28		
			N ₂ O	0.03		
HR15.002B	HR15.002B	Regenerant Heater	CO ₂	14,858	14,872	Use of Good Combustion Practices. See permit condition III.A.1.d. through III.A.1.j.
			CH ₄	0.28		
			N ₂ O	0.03		
SK25.001	SK25.001	Flare	CO ₂	62,494	62,542	Use of Good Combustion Practices. See permit condition III.A.2.
			CH ₄	0.68		
			N ₂ O	0.11		
FRAC F EFa and FRAC F EFb	FRAC F EFa and FRAC F EFb	Fugitive Process Emissions	CH ₄	Not Applicable	Not Applicable	Implementation of LDAR Program. See permit condition III.A.3.
Totals⁴			CO ₂	238,186	CO₂e 238,425	
			CH ₄	4.99		
			N ₂ O	0.43		

1. Compliance with the annual emission limits (tons per year) is based on a 12-month rolling basis.
2. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions only from the facility during all operations and include MSS activities.
3. Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
4. The total emissions for CH₄ and CO₂e include the PTE for process fugitive emissions of CH₄. These totals are given for informational purposes only and do not constitute emission limits.

III. SPECIAL PERMIT CONDITIONS

A. Emission Unit Work Practice Standards, Operational Requirements, and Monitoring

1. Hot Oil Heaters (HR15.001A and HR15.001B) and Regenerant Heaters (HR15.002A and HR15.002B)
 - a. Permittee shall calculate, on a monthly basis, the amount of CO₂ emitted from combustion in tons/yr using equation C-2a in 40 CFR Part 98 Subpart C, converted to short tons. Compliance shall be based on a 12-month rolling basis.
 - b. Permittee shall calculate the CH₄ and N₂O emissions on a 12-month rolling basis. Permittee shall determine compliance with the CH₄ and N₂O emissions limits contained in this section using the default CH₄ and N₂O emission factors contained in Table C-2 and equation C-9a of 40 CFR Part 98 and the measured actual heat input (HHV), converted to short tons.
 - c. Permittee shall calculate the CO₂e emissions on a 12-month rolling basis, based on the procedures and Global Warming Potentials (GWP) contained in Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395).
 - d. Fuel for the heaters shall be limited to pipeline quality natural gas with a fuel sulfur content of up to 5 grains of sulfur per 100 dry standard cubic feet (gr S/100 dscf). The fuel gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR Part 98.34(a)(6) and records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the heaters or shall allow a sample to be taken by EPA for analysis.
 - e. Permittee shall install and maintain an operational non-resettable elapsed time meter for the heaters. The flow meters must be calibrated on an annual basis.
 - f. The flow rate of the fuel combusted in natural gas-fired combustion emission units identified in this section shall be measured and recorded using an operational totalizing fuel flow meter at each inlet.
 - g. Permittee shall perform cleaning of the burner tips, at a minimum of, annually.
 - h. Permittee shall install, operate, and maintain an automated air/fuel control system.
 - i. Permittee shall calibrate and perform preventative maintenance on the air/fuel control analyzers once per quarter, at a minimum.
 - j. Permittee shall utilize insulation materials (e.g. ceramic fiber blankets and KaoliteTM) where feasible to reduce heat loss.
 - k. Permittee shall install, operate, and maintain an O₂ analyzer on the hot oil heaters (HR15.001A and HR15.001B).

- l. Oxygen analyzers shall continuously monitor and record oxygen concentration in the hot oil heaters (HR15.001A and HR15.001B). It shall reduce the oxygen readings to an averaging period of 15 minutes or less and record it at that frequency.
 - m. The oxygen analyzers shall be quality-assured at least quarterly using cylinder gas audits (CGAs) 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., two successive semiannual CGAs may be conducted).
 - n. The one-hour maximum firing rate for the hot oil heaters (HR15.001A and HR15.001B) shall not exceed 160 MMBtu/hr per unit. The annual average firing rate shall not exceed 140 MMBtu/hr.
 - o. The maximum firing rate for the regenerant heaters (HR15.002A and HR15.002B) shall not exceed 28.5 MMBtu/hr per unit. The annual average firing rate shall not exceed 28.5 MMBtu/hr.
 - p. A rolling 12 month average and the one-hour maximum firing rates shall be calculated daily to demonstrate compliance with the firing rates in III.A.1.m. and III.A.1.n.
 - q. The Permittee shall maintain a minimum overall thermal efficiency of 85% on a 12-month rolling average basis, calculated monthly, for the hot oil heaters (HR15.001A and HR15.001B) excluding periods of start-up, shutdown, and malfunction.
 - r. The hot oil heaters (HR15.001A and HR15.001B) will be continuously monitored for exhaust temperature, input fuel temperature, and stack oxygen. Thermal efficiency for emission units will be calculated for each operating hour from these parameters using equation G-1 from American Petroleum Institute (API) methods 560 (4th ed.) Annex G.
 - s. The heaters are not expected to have GHG emissions in excess of the allowed emission rates during periods of startup, shutdown, or maintenance. The fuel firing rates will be below the maximum rate and startups will be limited to 240 minutes.
2. Flare (SK25.001)
- a. Permittee shall install, operate, and maintain a flow rate and composition analyzer to monitor the waste gas combusted by the flare. The flow rate and composition analyzer shall continuously record the molecular weight and mass flow rate of the flare gas.
 - b. The flare shall be air assisted.
 - c. Flare shall have a minimum destruction and removal efficiency (DRE) of 99.5% based on flowrate and gas composition.
 - d. Permittee must record the inlet waste gas heat input (HHV) in MMBtu/hr during flare operation. The records must include hourly CH₄ emission levels as measured by the in-line gas analyzer (Gas chromatograph or equivalent with inlet gas flowrate) and the calculations based on the actual heat input for the CO₂, N₂O, and CH₄

emissions. These records must be kept for five years following the date of each event.

- e. The flare shall be designed and operated in accordance with 40 CFR 60.18 including specifications of minimum heating value of the waste gas, maximum tip velocity, and pilot flame monitoring. An infrared monitor is considered equivalent to a thermocouple for flame monitoring purposes.

3. Process Fugitives (FRAC F EFa and FRAC F EFb)

The permittee shall implement the TCEQ 28LAER leak detection and repair (LDAR) program for fugitive emissions of methane.¹

B. Continuous Emissions Monitoring Systems (CEMS)

1. As an alternative to Special Conditions III.A.1.k, III.A.1.l, III.A.1.m, III.A.1.q, and III.A.1.r. Permittee may install a CO₂ CEMS and volumetric stack gas flow monitoring system with an automated data acquisition and handling system for measuring and recording CO₂ emissions discharged to the atmosphere, and use these values to show compliance with the annual emission limit in Table 1.
2. Permittee shall ensure that all required CO₂ monitoring system/equipment are installed and all certification tests are completed on or before the earlier of 90 unit operating days or 180 calendar days after the date the unit commences operation.
3. Permittee shall ensure compliance with the specifications and test procedures for CO₂ emission monitoring system at stationary sources, 40 CFR Part 75, or 40 CFR Part 60, Appendix B, Performance Specification numbers 1 through 9, as applicable.
4. Permittee shall meet the appropriate quality assurance requirements specified in 40 CFR Part 60, Appendix F for the CO₂ emission monitoring system.

IV. Recordkeeping and Reporting

1. In order to demonstrate compliance with the GHG emission limits in Table 1, the permittee will monitor the following parameters and summarize the data on a calendar month basis.
 - a. Operating hours for all air emission sources;
 - b. The natural gas fuel usage for all combustion sources, using continuous fuel flow monitors (a group of equipment can utilize a common fuel flow meter, as long as actual fuel usage is allocated to the individual equipment based upon actual operating hours and maximum firing rate); and

¹ The boilerplate special conditions for the TCEQ 28LAER LDAR program can be found at http://www.tceq.state.tx.us/assets/public/permitting/air/Guidance/NewSourceReview/bpc_rev28laer.pdf. These conditions are included in the TCEQ issued NSR permit.

- c. Annual fuel sampling for natural gas, and quarterly sampling of waste gas at a minimum.
2. Permittee shall maintain and keep records of the monitoring results, as well as the repair and maintenance records in implementing the TCEQ 28LAER leak detection and repair program.
3. Permittee shall maintain a all records, data, measurements, reports, and documents related to the operation of the facility, including, but not limited to, the following: all records or reports pertaining to significant maintenance performed on any system or device at the facility; duration of startup, shutdown; the initial startup period for the emission units; pollution control units; malfunctions; all records relating to performance tests, calibrations, checks, and monitoring of combustion equipment; duration of an inoperative monitoring device and emission units with the required corresponding emission data; and all other information required by this permit recorded in a permanent form suitable for inspection. The records must be retained for not less than five years following the date of such measurements, maintenance, reports, and/or records.
4. Permittee shall maintain records of all GHG emission units and CO₂ emission certification tests and monitoring and compliance information required by this permit.
5. Permittee shall maintain records and submit a written report of all excess emissions to EPA semi-annually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator or authorized representative, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. The report is due on the 30th day following the end of each semi-annual period and shall include the following:
 - a. Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;
 - b. Applicable time and date of each period during which the monitoring equipment was inoperative (monitoring down-time);
 - c. A statement in the report of a negative declaration; that is; a statement when no excess emissions occurred or when the monitoring equipment has not been inoperative, repaired or adjusted; and
 - d. Any failure to conduct any required source testing, monitoring, or other compliance activities.
6. Excess emissions shall be defined as any period in which the facility emissions exceed a maximum emission limit set forth in this permit.
7. Excess emissions indicated by GHG emission source certification testing or compliance monitoring shall be considered violations of the applicable emission limit for the purpose of this permit.

8. All records required by this PSD Permit shall be retained and remain accessible for not less than 5 years following the date of such measurements, maintenance, and reporting.

V. Initial Performance Testing Requirements:

- A. The holder of this permit shall perform an initial stack test to establish the actual quantities of air contaminants being emitted into the atmosphere from emission units HR15.001A, HR15.001B, HR15.002A, and HR15.002B and to determine the initial compliance with the CO₂ emission limits established in this permit. Sampling shall be conducted in accordance with 40 CFR § 60.8 and EPA Method 3a or 3b, in 40 CFR 60 Appendix B, for the concentration of CO₂ for the heaters.
 1. Multiply the CO₂ hourly average emission rate determined under maximum operating test conditions by 8,760 hours.
 2. If the above calculated CO₂ emission total does not exceed the tons per year (TPY) specified on Table 1, no compliance strategy needs to be developed.
 3. If the above calculated CO₂ emission total exceeds the tons per year (TPY) specified in Table 1, the facility shall;
 - a. Document the exceedance in the test report; and
 - b. Explain within the report how the facility will assure compliance with the CO₂ emission limit listed in Table 1.
- B. The Permittee shall conduct an evaluation of the thermal efficiency of the hot oil heaters (HR15.001A and HR15.001B) to verify compliance with minimal thermal efficiency requirements at III.A.1.r. when performing testing as stated in V.A. above. The results of the thermal efficiency evaluation shall be submitted to the EPA within 30 days of testing.
- C. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility, performance tests(s) must be conducted and a written report of the performance testing results furnished to the EPA. Additional sampling may be required by TCEQ or EPA.
- D. Permittee shall submit a performance test protocol to EPA no later than 30 days prior to the test to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.
- E. Performance testing must be conducted using flow rates that are comparable to the normal operating flow rates.
- F. Fuel sampling for emission unit SK25.001 (flare) shall be conducted in accordance with 40 CFR Part 98.
- G. Flare compliance determinations shall be made following the requirements in 40 CFR Part 65 sections 65.147(b)(3)(i) through 65.147(b)(3)(iv).

- H. Performance tests must be conducted under such conditions to ensure representative performance of the affected facility. The owner or operator must make available to the EPA such records as may be necessary to determine the conditions of the performance tests.
- I. The owner or operator must provide the EPA at least 30 days' prior notice of any performance test, except as specified under other subparts, to afford the EPA the opportunity to have an observer present and/or to attend a pre-test meeting. If there is a delay in the original test date, the facility must provide at least 7 days prior notice of the rescheduled date of the performance test.
- L. The owner or operator shall provide, or cause to be provided, performance testing facilities as follows:
 - 1. Sampling ports adequate for test methods applicable to this facility,
 - 2. Safe sampling platform(s),
 - 3. Safe access to sampling platform(s), and
 - 4. Utilities for sampling and testing equipment.
- M. Unless otherwise specified, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. Emissions testing, as outlined above, shall be performed every three years, or more frequently if identified above, to verify continued performance at permitted emission limits.

VI. Agency Notifications

Permittee shall submit GHG permit applications, permit amendments, and other applicable permit information to:

Multi Media Planning and Permitting Division
EPA Region 6
1445 Ross Avenue (6 PD-R)
Dallas, TX 75202
Email: Group R6AirPermits@EPA.gov

Permittee shall submit a copy of all compliance and enforcement correspondence as required by this Approval to Construct to:

Compliance and Enforcement Division
EPA Region 6
1445 Ross Avenue (6EN)
Dallas, TX 75202