

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Albemarle Corporation

AUTHORIZING THE OPERATION OF

Albemarle Corporation Bayport Plant  
Industrial Inorganic Chemicals

LOCATED AT

Harris County, Texas

Latitude 29° 38' 32" Longitude 95° 3' 54"

Regulated Entity Number: RN100211523

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:   O1559   Issuance Date:   June 18, 2014  

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For the Commission

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## **General Terms and Conditions**

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

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

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

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

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

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

1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

- C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
- D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
- E. Emission units subject to 40 CFR Part 63, Subparts ZZZZ and VVVVVV as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.1090 and § 113.1945 respectively which incorporate the 40 CFR Part 63 Subpart by reference.
- F. For the purpose of generating emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 1 (Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
  - (i) Title 30 TAC § 101.302 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.303 (relating to Emission Reduction Credit Generation Certification)
  - (iii) Title 30 TAC § 101.304 (relating to Mobile Emission Reduction Credit Generation and Certification)
  - (iv) Title 30 TAC § 101.305 (relating to Emission Reductions Achieved Outside the United States)
  - (v) Title 30 TAC § 101.309 (relating to Emission Credit Banking and Trading)
  - (vi) The terms and conditions by which the emission limits are established to generate the reduction credit are applicable requirements of this permit
- G. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 3 (Mass Emission Cap and Trade Program) Requirements:
  - (i) Title 30 TAC § 101.352 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.353 (relating to Allocation of Allowances)
  - (iii) Title 30 TAC § 101.354 (relating to Allowance Deductions)

- (iv) Title 30 TAC § 101.356 (relating to Allowance Banking and Trading)
  - (v) Title 30 TAC § 101.358 (relating to Emission Monitoring and Compliance Demonstration)
  - (vi) Title 30 TAC § 101.359 (relating to Reporting)
  - (vii) Title 30 TAC § 101.360 (relating to Level of Activity Certification)
  - (viii) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit
- H. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
- (i) Title 30 TAC § 101.372 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)
  - (iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)
  - (iv) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)
  - (v) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)
  - (vi) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit
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. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:
    - (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
    - (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
    - (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
      - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.
      - (2) Records of all observations shall be maintained.

(3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) 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.

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. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
4. Permit holder shall comply with the following 30 TAC Chapter 115, Subchapter C requirements:
- A. When filling stationary gasoline storage vessels (Stage I) for motor vehicle fuel dispensing facilities, constructed prior to November 15, 1992, with transfers to stationary storage tanks located at a facility which has dispensed no more than 10,000 gallons of gasoline in any calendar month after January 1, 1991, the permit holder shall comply with the following requirements specified in 30 TAC Chapter 115, Subchapter C:
    - (i) Title 30 TAC § 115.222(7) (relating to Control Requirements)
    - (ii) Title 30 TAC § 115.222(3), as it applies to liquid gasoline leaks
    - (iii) Title 30 TAC § 115.224(1) (relating to Inspection Requirements), as it applies to liquid gasoline leaks
    - (iv) Title 30 TAC § 115.226(2)(B) (relating to Recordkeeping Requirements)
5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
  - B. Title 40 CFR § 60.8 (relating to Performance Tests)
  - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
  - D. Title 40 CFR § 60.12 (relating to Circumvention)
  - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)
  - G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

6. The permit holder shall comply with the 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.
7. For each gasoline dispensing facility, with a throughput of less than 10,000 gallons per month as specified in 40 CFR Part 63, Subpart CCCCC, the permit holder shall comply with the following requirements (Title 30 TAC, Subchapter C, § 113.1380 incorporated by reference):
  - A. Title 40 CFR § 63.1111(e), for records of monthly throughput
  - B. Title 40 CFR § 63.1111(i), for compliance due to increase of throughput
  - C. Title 40 CFR § 63.1113(c), for compliance due to increase of throughput
  - D. Title 40 CFR § 63.1115(a), for operation of the source
  - E. Title 40 CFR § 63.1116(a) and (a)(1) - (4), for work practices
  - F. Title 40 CFR § 63.1116(b), for records availability
  - G. Title 40 CFR § 63.1116(d), for portable gasoline containers

#### **Additional Monitoring Requirements**

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

#### **New Source Review Authorization Requirements**

9. 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
10. 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.
11. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, material safety data sheets (MSDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144.
- A. If applicable, monitoring of control device performance or general work practice standards shall be made in accordance with the TCEQ Periodic Monitoring Guidance document.
  - B. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).
12. The permit holder shall comply with the following requirements for Air Quality Standard Permits:
- A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit
  - B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit
  - C. Applicable requirements of 30 TAC § 116.617 for Pollution Control Projects based on the information contained in the registration application.

## Compliance Requirements

13. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
14. Permit holder shall comply with the following 30 TAC Chapter 117 requirements:
  - A. The permit holder shall comply with the compliance schedules and submit written notification to the TCEQ Executive Director as required in 30 TAC Chapter 117, Subchapter H, Division 1:
    - (i) For sources in the Houston-Galveston-Brazoria Nonattainment area, 30 TAC § 117.9020:
      - (1) Title 30 TAC § 117.9020(2)(A), (C), and (D)
  - B. The permit holder shall comply with the Initial Control Plan unit listing requirement in 30 TAC § 117.350(c) and (c)(1).
  - C. The permit holder shall comply with the requirements of 30 TAC § 117.354 for Final Control Plan Procedures for Attainment Demonstration Emission Specifications and 30 TAC § 117.356 for Revision of Final Control Plan.
15. Use of Emission Credits to comply with applicable requirements:
  - A. Unless otherwise prohibited, the permit holder may use emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) Offsets for Title 30 TAC Chapter 116
  - B. The permit holder shall comply with the following requirements in order to use the emission credits to comply with the applicable requirements:
    - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)(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
16. Use of Discrete Emission Credits to comply with the applicable requirements:
- A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) If applicable, offsets for Title 30 TAC Chapter 116
    - (iv) Temporarily exceed state NSR permit allowables
  - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
    - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
    - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
    - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
    - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

**Permit Location**

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

**Permit Shield (30 TAC § 122.148)**

- 18. A permit shield is granted for the emission units, groups, or processes specified in the attached “Permit Shield.” Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable

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

## **Attachments**

**Applicable Requirements Summary**

**Additional Monitoring Requirements**

**Permit Shield**

**New Source Review Authorization References**

## **Applicable Requirements Summary**

**Unit Summary ..... 14**

**Applicable Requirements Summary ..... 21**

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
4002-602	Stationary Reciprocating Int. Comb. Engines	N/A	R7ICI3	30 TAC Chapter 117, Subchapter B	No changing attributes.
4002-602	Stationary Reciprocating Int. Comb. Engines	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
4017-501A	Stationary Reciprocating Int. Comb. Engines	N/A	R7ICI3	30 TAC Chapter 117, Subchapter B	No changing attributes.
4017-501A	Stationary Reciprocating Int. Comb. Engines	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
4017-501B	Stationary Reciprocating Int. Comb. Engines	N/A	R7ICI3	30 TAC Chapter 117, Subchapter B	No changing attributes.
4017-501B	Stationary Reciprocating Int. Comb. Engines	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
CHB-1	Emission Points/Stationary Vents/Process Vents	N/A	R11111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
CHB-2	Emission Points/Stationary Vents/Process Vents	N/A	R11111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
ENG-1	Emission Points/Stationary Vents/Process Vents	N/A	R11111	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
FCC-21	Emission Points/Stationary Vents/Process Vents	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
FCC-21	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
FCC-23	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
FCC-27	Emission Points/Stationary Vents/Process Vents	N/A	R11111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
FCC-27	Boilers/Steam Generators/Steam Generating Units	N/A	R7ICI1	30 TAC Chapter 117, Subchapter B	No changing attributes.
FCC-27	Boilers/Steam Generators/Steam Generating Units	N/A	60Dc	40 CFR Part 60, Subpart Dc	No changing attributes.
FCC-51	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
FCC-52	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
FCC-63	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.

## Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
FCC-64	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
FCC-66	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
FCC-67	Stationary Reciprocating Int. Comb. Engines	N/A	R7ICI4	30 TAC Chapter 117, Subchapter B	No changing attributes.
FCC-67	Stationary Reciprocating Int. Comb. Engines	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
FCC-75	Process Heaters/Furnaces	N/A	R7ICI	30 TAC Chapter 117, Subchapter B	No changing attributes.
FCC-76	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
FCC-79	Stationary Reciprocating Int. Comb. Engines	N/A	R7ICI4	30 TAC Chapter 117, Subchapter B	No changing attributes.
FCC-79	Stationary Reciprocating Int. Comb. Engines	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
FCC-80	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.

## Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
FCC-82	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-12B	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-12C	Process Heaters/Furnaces	N/A	R7ICI	30 TAC Chapter 117, Subchapter B	No changing attributes.
HPC-12C	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-18	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-23	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-28	Storage Tanks/Vessels	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
HPC-3	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-42	Storage Tanks/Vessels	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
HPC-47	Emission Points/Stationary	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.

## Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	Vents/Process Vents				
HPC-48A	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-48B	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-52	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-54	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-55	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
HPC-57	Storage Tanks/Vessels	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
HPC-58	Storage Tanks/Vessels	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
PLU-10	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
PLU-2	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.

## Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PLU-3A	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
PLU-4	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
PLU-6	Emission Points/Stationary Vents/Process Vents	N/A	63VVVVVV	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
PLU-8	Storage Tanks/Vessels	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
RDL-5	Emission Points/Stationary Vents/Process Vents	N/A	R11111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
RSC-1	Emission Points/Stationary Vents/Process Vents	N/A	R11111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
RSC-2	Emission Points/Stationary Vents/Process Vents	N/A	R11111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
UTL-PRT1	Solvent Degreasing Machines	N/A	R5412	30 TAC Chapter 115, Degreasing Processes	No changing attributes.
UTL-PRT2	Solvent Degreasing Machines	N/A	R5412	30 TAC Chapter 115, Degreasing Processes	No changing attributes.
UTL-SUB	Storage Tanks/Vessels	N/A	R5112	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
VSP-9	Emission Points/Stationary Vents/Process Vents	N/A	R11111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
VSP-9	Boilers/Steam Generators/Steam Generating Units	N/A	R7ICI2	30 TAC Chapter 117, Subchapter B	No changing attributes.
VSP-9	Boilers/Steam Generators/Steam Generating Units	N/A	60DB	40 CFR Part 60, Subpart Db	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)
4002-602	EU	R7ICI3	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and 117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average.	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
4002-602	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart ZZZZ
4017-501A	EU	R7ICI3	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements  (30 TAC § 122.144)	Reporting Requirements  (30 TAC § 122.145)
						117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average.			
4017-501A	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart ZZZZ
4017-501B	EU	R7ICI3	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and 117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average.			
4017-501B	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart ZZZZ
CHB-1	EP	R11111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
CHB-2	EP	R11111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
ENG-1	EP	R11111	OPACITY	30 TAC Chapter 111, Visible	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring	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)
				Emissions		shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	Summary		
FCC-21	EP	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
FCC-21	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
FCC-23	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV

## 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)
FCC-27	EP	R11111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
FCC-27	EU	R7ICI1	NO <sub>x</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(1)(B) § 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 <sub>x</sub> emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[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)
FCC-27	EU	R7ICI1	CO	30 TAC Chapter 117, Subchapter B	§ 117.325(a) § 117.310(c)(1)(B)	Where a person can demonstrate that an affected unit cannot attain the carbon	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(7)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements  (30 TAC § 122.144)	Reporting Requirements  (30 TAC § 122.145)
						monoxide (CO) specifications of § 117.310(c) of this title the executive director may approve emission specifications different from the CO specifications in § 117.310(c) of this title for that unit.	§ 117.335(e) § 117.335(g) § 117.340(a) § 117.340(e) § 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(f)(9)	§ 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)
FCC-27	EU	60Dc	SO <sub>2</sub>	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)
FCC-27	EU	60Dc	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)
FCC-27	EU	60Dc	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or	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)
						modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).			
FCC-51	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
FCC-52	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
FCC-63	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
FCC-64	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation,	The permit holder shall comply with the applicable requirements of 40	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping	The permit holder shall comply with the applicable reporting

## 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)
					standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	CFR Part 63, Subpart VVVVVV		requirements of 40 CFR Part 63, Subpart VVVVVV	requirements of 40 CFR Part 63, Subpart VVVVVV
FCC-66	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
FCC-67	EU	R7IC14	NO <sub>x</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(9)(E)(v)(II) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) [G]§ 117.310(f) § 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 <sub>x</sub> emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a)(2)(C) § 117.340(h) § 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) § 117.345(f)(3)(A) § 117.345(f)(3)(A)(ii) § 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) § 117.8140(a)	§ 117.345(a) § 117.345(f) [G]§ 117.345(f)(10) § 117.345(f)(3) § 117.345(f)(3)(B) § 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)
							§ 117.8140(a)(1) § 117.8140(a)(2) § 117.8140(a)(2)(A) [G]§ 117.8140(a)(2)(B) § 117.8140(b)		
FCC-67	EU	R7ICI4	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B)	CO emissions must not exceed 3.0 g/hp-hr for stationary internal combustion engines.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a)(2)(C) § 117.340(h) § 117.345(f)(3) § 117.345(f)(3)(A) § 117.345(f)(3)(A)(ii) § 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) § 117.8140(a) § 117.8140(a)(1) § 117.8140(a)(2) § 117.8140(a)(2)(A) [G]§ 117.8140(a)(2)(B) § 117.8140(b)	§ 117.345(a) § 117.345(f) [G]§ 117.345(f)(10) § 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)
FCC-67	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603 The permit holder shall comply with the applicable limitation, standard and/or	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable recordkeeping requirements of 40	The permit holder shall comply with the applicable reporting requirements of 40

## 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)
					equipment specification requirements of 40 CFR Part 63, Subpart ZZZZ	ZZZZ		CFR Part 63, Subpart ZZZZ	CFR Part 63, Subpart ZZZZ
FCC-75	EU	R7ICI	NO <sub>x</sub>	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 <sub>x</sub> emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[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)
FCC-75	EU	R7ICI	CO	30 TAC Chapter 117, Subchapter B	§ 117.325(a)	Where a person can demonstrate that an affected unit cannot attain the carbon monoxide (CO) specifications of § 117.310(c) of this title the executive director may approve emission specifications different from the CO	[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)	§ 117.345(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)

## 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)
						specifications in § 117.310(c) of this title for that unit.	§ 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)		[G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
FCC-76	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
FCC-79	EU	R7ICI4	NO <sub>x</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(9)(E)(v)(II) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) [G]§ 117.310(f) § 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 <sub>x</sub> emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a)(2)(C) § 117.340(h) § 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) § 117.345(f)(3)(A) § 117.345(f)(3)(A)(ii) § 117.8000(b) § 117.8000(c) § 117.8000(c)(1) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6)	§ 117.345(a) § 117.345(f) [G]§ 117.345(f)(10) § 117.345(f)(3) § 117.345(f)(3)(B) § 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)
						to comply with § 117.320.	[G]§ 117.8000(d) § 117.8140(a) § 117.8140(a)(1) § 117.8140(a)(2) § 117.8140(a)(2)(A) [G]§ 117.8140(a)(2)(B) § 117.8140(b)		
FCC-79	EU	R7ICI4	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B)	CO emissions must not exceed 3.0 g/hp-hr for stationary internal combustion engines.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a)(2)(C) § 117.340(h) § 117.345(f)(3) § 117.345(f)(3)(A) § 117.345(f)(3)(A)(ii) § 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) § 117.8140(a) § 117.8140(a)(1) § 117.8140(a)(2) § 117.8140(a)(2)(A) [G]§ 117.8140(a)(2)(B) § 117.8140(b)	§ 117.345(a) § 117.345(f) [G]§ 117.345(f)(10) § 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)
FCC-79	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603 The permit holder shall comply with the	The permit holder shall comply with the applicable	The permit holder shall comply with the applicable monitoring and testing requirements of 40	The permit holder shall comply with the applicable	The permit holder shall comply with the applicable

## 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)
					applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart ZZZZ	requirements of 40 CFR Part 63, Subpart ZZZZ	CFR Part 63, Subpart ZZZZ	recordkeeping requirements of 40 CFR Part 63, Subpart ZZZZ	reporting requirements of 40 CFR Part 63, Subpart ZZZZ
FCC-80	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
FCC-82	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-12B	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-12C	EU	R7ICI	NO <sub>x</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(ii) § 117.310(b)	An owner or operator may not use the alternative methods specified in §§ 117.315,	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(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)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements  (30 TAC § 122.144)	Reporting Requirements  (30 TAC § 122.145)
					[G]§ 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)	117.323 and 117.9800 to comply with the NO <sub>x</sub> emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	§ 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)		[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)
HPC-12C	EU	R7ICI	CO	30 TAC Chapter 117, Subchapter B	§ 117.325(a)	Where a person can demonstrate that an affected unit cannot attain the carbon monoxide (CO) specifications of § 117.310(c) of this title the executive director may approve emission specifications different from the CO specifications in § 117.310(c) of this title for that unit.	[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)

## 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)
HPC-12C	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-18	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-23	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-28	EU	R5112	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
HPC-3	EP	63VVVVV	112(B)	40 CFR Part 63,	§ 63.11496(b)	The permit holder	The permit holder shall comply	The permit holder	The permit holder

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements  (30 TAC § 122.144)	Reporting Requirements  (30 TAC § 122.145)
		V	HAPS	Subpart VVVVVV	The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-42	EU	R5112	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
HPC-47	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-48A	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-48B	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall	The permit holder shall comply with the	The permit holder shall comply with the applicable monitoring	The permit holder shall comply with	The permit holder shall comply with

## 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)
					comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	applicable requirements of 40 CFR Part 63, Subpart VVVVVV	and testing requirements of 40 CFR Part 63, Subpart VVVVVV	the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-52	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-54	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-55	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
HPC-57	EU	R5112	VOC	30 TAC Chapter 115, Storage of	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(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)
				VOCs		storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.		§ 115.118(a)(7)	
HPC-58	EU	R5112	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
PLU-10	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
PLU-2	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
PLU-3A	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation,	The permit holder shall comply with the applicable requirements of 40	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping	The permit holder shall comply with the applicable reporting

## 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)
					standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	CFR Part 63, Subpart VVVVVV		requirements of 40 CFR Part 63, Subpart VVVVVV	requirements of 40 CFR Part 63, Subpart VVVVVV
PLU-4	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
PLU-6	EP	63VVVVV V	112(B) HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart VVVVVV	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart VVVVVV
PLU-8	EU	R5112	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
RDL-5	EP	R11111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements  (30 TAC § 122.144)	Reporting Requirements  (30 TAC § 122.145)
						minute period for any source on which construction was begun after January 31, 1972.			
RSC-1	EP	R11111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
RSC-2	EP	R11111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
UTL-PRT1	EU	R5412	VOC	30 TAC Chapter 115, Degreasing Processes	§ 115.412(1) [G]§ 115.412(1)(A) § 115.412(1)(C) § 115.412(1)(D) [G]§ 115.412(1)(F) § 115.417(1)	Cold solvent cleaning. No person shall own or operate a system utilizing a VOC for the cold solvent cleaning of objects without the controls listed in §115.412(1)(A)-(F).	[G]§ 115.415(1) § 115.415(3) ** See Periodic Monitoring Summary	None	None
UTL-PRT2	EU	R5412	VOC	30 TAC Chapter 115, Degreasing Processes	§ 115.412(1) [G]§ 115.412(1)(A) § 115.412(1)(C)	Cold solvent cleaning. No person shall own or operate a system	[G]§ 115.415(1) § 115.415(3) ** See Periodic Monitoring	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)
					§ 115.412(1)(D) [G]§ 115.412(1)(F) § 115.417(1)	utilizing a VOC for the cold solvent cleaning of objects without the controls listed in §115.412(1)(A)-(F).	Summary		
UTL-SUB	EU	R5112	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
VSP-9	EP	R11111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
VSP-9	EU	R71Cl2	NO <sub>x</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(1)(A) § 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)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO <sub>x</sub> emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(2) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(g)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(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)

## 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)
						must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	§ 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(b) § 117.8100(b)(1) [G]§ 117.8100(b)(1)(A) § 117.8100(b)(1)(B) § 117.8100(b)(2) § 117.8100(b)(3) § 117.8100(b)(3)(A) § 117.8100(b)(3)(B) § 117.8100(b)(4) § 117.8100(b)(4)(A) § 117.8100(b)(4)(A)(i) § 117.8100(b)(4)(A)(i)(I) § 117.8100(b)(4)(A)(i)(II) [G]§ 117.8100(b)(4)(A)(ii) [G]§ 117.8100(b)(4)(B) § 117.8100(b)(4)(C) § 117.8100(b)(4)(C)(i) § 117.8100(b)(4)(C)(ii) § 117.8100(b)(4)(C)(iii) § 117.8100(b)(4)(C)(iii)(I) § 117.8100(b)(4)(C)(iii)(II) § 117.8100(b)(4)(C)(iii)(II)(-a-) § 117.8100(b)(5) § 117.8100(b)(6)		§ 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
VSP-9	EU	R7ICI2	CO	30 TAC Chapter 117, Subchapter B	§ 117.325(a)	Where a person can demonstrate that an affected unit cannot attain the carbon monoxide (CO) specifications of § 117.310(c) of this title the executive director may approve emission specifications different from the CO specifications in §	[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(b)(1) § 117.340(b)(3) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2)	§ 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)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements  (30 TAC § 122.144)	Reporting Requirements  (30 TAC § 122.145)
						117.310(c) of this title for that unit.	§ 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)		§ 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
VSP-9	EU	60DB	SO <sub>2</sub>	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)
VSP-9	EU	60DB	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)
VSP-9	EU	60DB	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	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						(100 MMBtu/hr).			
VSP-9	EU	60DB	NO <sub>x</sub>	40 CFR Part 60, Subpart Db	§ 60.44b(a)(1)(i) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Except as in §60.44b(k), (l), on/after §60.8 test, no facility combusting natural gas and distillate oil (low heat release rate) shall discharge gases containing NO <sub>x</sub> in excess of 43 ng/J heat input.	§ 60.46b(c) § 60.46b(f) § 60.48b(g)(2)	[G]§ 60.49b(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) [G]§ 60.49b(c) § 60.49b(h) § 60.49b(v) § 60.49b(w)

**Additional Monitoring Requirements**

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## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: CHB-1	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R11111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: It is a deviation if opacity is greater than 20%.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: CHB-2	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R11111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: It is a deviation if opacity is greater than 20%.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: ENG-1	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R11111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: It is a deviation if opacity is greater than 20%.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: FCC-21	
Control Device ID No.: FABRIC FILTER	Control Device Type: Fabric Filter
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
<b>Monitoring Information</b>	
Indicator: Particulate emissions	
Minimum Frequency: Once per hour	
Averaging Period: n/a	
Deviation Limit: It is a deviation if the signal exceeds 75 and the alarm goes off, or if the baghouse is brought back into service before conducting any repairs, unless the baghouse is shutdown and inspected for possible repairs within 1 hour of alarm event.	
<p>Periodic Monitoring Text: Monitor and record the bag leak detection signals. Operate, calibrate and maintain bag leak detectors in accordance with detectors manufacturer's guidance and specification. Establish a warning signal to trigger a shutdown of the system if measurement exceeds a specific level. If the measurements have exceeded the specific level they will be considered and reported as a deviation, unless the baghouse is shutdown and inspected for possible repairs within 1 hour of an alarm event. Failure to conduct any necessary repairs before the baghouse is brought back into service shall be reported as a deviation. Records shall be maintained of each bag leak detection alarm event, time of the alarm event, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. Monitoring frequency will be once per hour.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: FCC-27	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R11111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: It is a deviation if opacity is greater than 20%.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: RDL-5	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R11111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: It is a deviation if opacity is greater than 20%.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: RSC-1	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R11111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: It is a deviation if opacity is greater than 20%.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: RSC-2	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R11111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: It is a deviation if opacity is greater than 20%.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: UTL-PRT1	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 115, Degreasing Processes	SOP Index No.: R5412
Pollutant: VOC	Main Standard: § 115.412(1)
<b>Monitoring Information</b>	
Indicator: Visual Inspection	
Minimum Frequency: Monthly	
Averaging Period: n/a	
Deviation Limit: It is a deviation if any monitoring data indicates that the cold cleaner is not in compliance with the applicable requirements of 30 TAC 115.412(1)(A)-(F).	
Periodic Monitoring Text: Inspect equipment and record data monthly to ensure compliance with any applicable requirements in § 115.412(1)(A)-(F). Any monitoring data which indicates that the cold cleaner is not in compliance with the applicable requirements of § 115.412(1)(A)-(F) shall be considered and reported as a deviation.	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: UTL-PRT2	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 115, Degreasing Processes	SOP Index No.: R5412
Pollutant: VOC	Main Standard: § 115.412(1)
<b>Monitoring Information</b>	
Indicator: Visual Inspection	
Minimum Frequency: Monthly	
Averaging Period: n/a	
Deviation Limit: It is a deviation if any monitoring data indicates that the cold cleaner is not in compliance with the applicable requirements of 30 TAC 115.412(1)(A)-(F).	
Periodic Monitoring Text: Inspect equipment and record data monthly to ensure compliance with any applicable requirements in § 115.412(1)(A)-(F). Any monitoring data which indicates that the cold cleaner is not in compliance with the applicable requirements of § 115.412(1)(A)-(F) shall be considered and reported as a deviation.	

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: VSP-9	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R11111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: It is a deviation if opacity is greater than 20%.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

**Permit Shield**

**Permit Shield .....58**

## 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		
CHB-1	N/A	30 TAC Chapter 117, Subchapter B	Boiler has a maximum rated capacity less than 2 MMBtu/hr.
CHB-1	N/A	40 CFR Part 60, Subpart Db	Boiler heat input capacity is less than 100 MM BTU/hr.
CHB-1	N/A	40 CFR Part 60, Subpart Dc	Boiler heat input capacity is less than 10 MM BTU/hr.
CHB-2	N/A	30 TAC Chapter 117, Subchapter B	Boiler has a maximum rated capacity less than 2 MMBtu/hr.
CHB-2	N/A	40 CFR Part 60, Subpart Db	Boiler heat input capacity is less than 100 MM BTU/hr.
CHB-2	N/A	40 CFR Part 60, Subpart Dc	Boiler heat input capacity is less than 10 MM BTU/hr.
ENG-1	N/A	30 TAC Chapter 117, Subchapter B	Boiler has a maximum rated capacity less than 2 MMBtu/hr.
ENG-1	N/A	40 CFR Part 60, Subpart Db	Boiler heat input capacity is less than 100 MM BTU/hr.
ENG-1	N/A	40 CFR Part 60, Subpart Dc	Boiler heat input capacity is less than 10 MM BTU/hr.
FCC-10	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-12	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.

## 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		
FCC-16	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-19	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-20	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-27	N/A	40 CFR Part 60, Subpart D	Boiler heat input rate is less than 250 MM BTU/hr
FCC-27	N/A	40 CFR Part 60, Subpart Db	Boiler heat input is less than 100 MM BTU/hr
FCC-27	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-3A	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-40	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-53	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-54	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-55	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-57	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-58	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-61	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-62	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-65	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.

## 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		
FCC-68	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-69	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-70	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-71	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-77	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-78	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-81	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
FCC-9A	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
H-1931	N/A	40 CFR Part 63, Subpart Q	The cooling tower is not a major source of HAPs.
HPC-12A	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
HPC-17	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
HPC-28	N/A	40 CFR Part 60, Subpart Kb	Vessel has a design capacity less than 75 cubic meters.
HPC-32	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
HPC-33	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
HPC-34	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
HPC-35	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.

## 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		
HPC-36	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
HPC-42	N/A	40 CFR Part 60, Subpart Kb	Storage tank capacity is less than 40m <sup>3</sup>
HPC-57	N/A	40 CFR Part 60, Subpart Kb	Storage tank has a design capacity less than 75 cubic meters.
HPC-58	N/A	40 CFR Part 60, Subpart Kb	Storage tank has a design capacity less than 75 cubic meters.
PLU-11	N/A	40 CFR Part 63, Subpart Q	The cooling tower is not a major source of HAPs.
PLU-3B	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
PLU-7	N/A	40 CFR Part 63, Subpart VVVVVV	The unit does not emit any Table 1 HAP.
PLU-8	N/A	40 CFR Part 60, Subpart Kb	Storage tank has a design capacity less than 75 cubic meters.
PLU-FUG	N/A	40 CFR Part 60, Subpart VV	The facility does not produce any of the chemicals listed in § 60.489, so it is not in the synthetic organic chemicals manufacturing industry.
RDL-5	N/A	30 TAC Chapter 117, Subchapter B	Boiler has a maximum rated capacity less than 2 MMBtu/hr.
RDL-5	N/A	40 CFR Part 60, Subpart D	Boiler heat input rate is less than 250 MM BTU/hr.

## 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		
RDL-5	N/A	40 CFR Part 60, Subpart Db	Boiler heat input is less than 100 MM BTU/hr.
RDL-5	N/A	40 CFR Part 60, Subpart Dc	Boiler heat input is less than 10 MM BTU/h.
RSC-1	N/A	30 TAC Chapter 117, Subchapter B	Boiler has a maximum rated capacity less than 2 MMBtu/hr.
RSC-1	N/A	40 CFR Part 60, Subpart Db	Boiler heat input capacity is less than 100 MM BTU/hr.
RSC-1	N/A	40 CFR Part 60, Subpart Dc	Boiler heat input capacity is less than 10 MM BTU/hr.
RSC-2	N/A	30 TAC Chapter 117, Subchapter B	Boiler has a maximum rated capacity less than 2 MMBtu/hr.
RSC-2	N/A	40 CFR Part 60, Subpart Db	Boiler heat input capacity is less than 100 MM BTU/hr.
RSC-2	N/A	40 CFR Part 60, Subpart Dc	Boiler heat input capacity is less than 10 MM BTU/hr.
UTL-DSL	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank capacity is less than 1,000 gallons.
UTL-GAS	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank capacity is less than 1,000 gallons.
UTL-MERC1	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank capacity is less than 1,000

### 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		
			gallons.
UTL-MERC2	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank capacity is less than 1,000 gallons.
UTL-SUB	N/A	40 CFR Part 60, Subpart Kb	Storage tank has a design capacity less than 75 cubic meters.
VSP-9	N/A	40 CFR Part 60, Subpart D	Boiler heat input rate is less than 250 MM BTU/hr
VSP-9	N/A	40 CFR Part 60, Subpart Dc	Boiler heat input is greater than 100 MM BTU/hr

**New Source Review Authorization References**

**New Source Review Authorization References ..... 65**

**New Source Review Authorization References by Emission Unit..... 67**

## New Source Review Authorization References

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

<b>Nonattainment (NA) Permits</b>	
NA Permit No.: N022	Issuance Date: 02/27/2014
<b>Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.</b>	
Authorization No.: 106291	Issuance Date: 11/12/2012
Authorization No.: 21995	Issuance Date: 03/13/2012
Authorization No.: 2487	Issuance Date: 03/13/2013
Authorization No.: 76621	Issuance Date: 10/13/2010
Authorization No.: 84228	Issuance Date: 03/19/2008
Authorization No.: 9402	Issuance Date: 02/27/2014
Authorization No.: 9626	Issuance Date: 01/18/2011
<b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>	
Number: 106.122	Version No./Date: 09/04/2000
Number: 106.227	Version No./Date: 03/14/1997
Number: 106.261	Version No./Date: 12/24/1998
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 09/04/2000
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.371	Version No./Date: 03/14/1997
Number: 106.433	Version No./Date: 03/14/1997
Number: 106.454	Version No./Date: 07/08/1998
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 03/14/1997
Number: 106.511	Version No./Date: 03/14/1997
Number: 106.512	Version No./Date: 03/14/1997
Number: 5	Version No./Date: 04/05/1995
Number: 7	Version No./Date: 09/12/1989
Number: 38	Version No./Date: 05/05/1976

### **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.

Number: 75	Version No./Date: 11/25/1985
Number: 101	Version No./Date: 11/25/1985
Number: 103	Version No./Date: 11/25/1985

### 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
4002-602	EMERGENCY GENERATOR	106.512/03/14/1997
4017-501A	SUBSTATION GENERATOR	106.512/03/14/1997
4017-501B	SUBSTATION GENERATOR	106.512/03/14/1997
CHB-1	CHANGE HOUSE BOILER #1	7/09/12/1989
CHB-2	CHANGE HOUSE BOILER #2	7/09/12/1989
ENG-1	ENGINEERING BUILDING BOILER	7/09/12/1989
FCC-10	2ND MOLSIEVE FLASH DRYER	9402, N022
FCC-12	2ND MOLSEIVE CALCINER	9402, N022
FCC-16	PORTACLAY/RESLURRY VENT BAG FILTER	9402, N022
FCC-19	KAOLIN DOSING BAG HOPPER	9402, N022
FCC-20	C ALUMINA STORAGE SILO BAG FILTER	9402, N022
FCC-21	SPRAY DRYER	9402, N022
FCC-23	SEPARATOR FINES BAG FILTER	9402, N022
FCC-27	BOILER	9402, N022
FCC-3A	FEED HOPPER BAG FILTER	9402, N022
FCC-40	KAOLIN UNLOADING BAG FILTER	9402, N022
FCC-51	CRUDE PRODUCT BAG FILTER	9402, N022
FCC-52	CRUDE PRODUCT BAG FILTER	9402, N022

## 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
FCC-53	CRUDE PRODUCT BAG FILTER	9402, N022
FCC-54	CRUDE PRODUCT BAG FILTER	9402, N022
FCC-55	VENTILATION AIR BAG FILTER	9402, N022
FCC-57	PRODUCT TRANSPORT BAG FILTER	9402, N022
FCC-58	PRODUCT DIST. CONVEYOR BAG FILTER	9402, N022
FCC-61	PRODUCT AIR SLIDE BAG FILTER	9402, N022
FCC-62	PRODUCT AIR SLIDE BAG FILTER	9402, N022
FCC-63	WEIGH SCALE BAG FILTER	9402, N022
FCC-64	BLENDED PRODUCT BAG FILTER	9402, N022
FCC-65	BULK LOADING STATION BAG FILTER	9402, N022
FCC-66	PORTABLE BAG FILTER	9402, N022
FCC-67	DIESEL ENGINE	9402, N022
FCC-68	KAOLIN SILO BAG FILTER	9402, N022
FCC-69	C ALUMINA DOSING BAG FILTER	9402, N022
FCC-70	BOC SILO BAG FILTER	9402, N022
FCC-71	BOC DOSING BAG FILTER	9402, N022
FCC-75	SCR UNIT	9402, N022
FCC-76	PRODUCT AIR SLIDE BAG FILTER	9402, N022

### 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
FCC-77	FC BOC STORAGE SILO BAG FILTER	9402, N022
FCC-78	FC BOC DOSING HOPPER BAG FILTER	9402, N022
FCC-79	DIESEL ENGINE	9402, N022
FCC-80	PORTABLE BAG FILTER II	9402, N022
FCC-81	TOTE BIN BAG FILTER	9402, N022
FCC-82	PORTABLE BAG FILTER	9402, N022
FCC-9A	FINAL PRODUCT BAG FILTER	9402, N022
H-1931	COOLING TOWER	106.371/03/14/1997
HPC-12A	SPRAY DRYER	2487
HPC-12B	NOX SCRUBBER	2487
HPC-12C	SCR HEATER	2487
HPC-17	HEPA FILTER FOR MOLOX BIN	2487
HPC-18	DUST CONVEYOR BAG FILTER	2487
HPC-23	BELT DRYER	2487
HPC-28	SODIUM GLUCONATE TANK	2487
HPC-32	BASE BIN A BAG FILTER	2487
HPC-33	BASE BIN B BAG FILTER	2487
HPC-34	BASE BIN C BAG FILTER	2487

### 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
HPC-35	DUST BIN A BAG FILTER	2487
HPC-36	DUST BIN B BAG FILTER	2487
HPC-3	BOC SILO BAG FILTER	2487
HPC-42	CITRIC ACID TANK	2487
HPC-47	HEPA FOR SOLUTION REACTOR	2487
HPC-48A	FINAL PRODUCT LOADOUT BAG FILTER	2487
HPC-48B	FINAL PRODUCT LOADOUT BAG FILTER MAINTENANCE	2487
HPC-52	EXTRUDER FEED HOPPER BAG FILTER	2487
HPC-54	3RD IMPREG. DRYER BAG FILTER	2487
HPC-55	3RD IMPREG. AREA VENT BAG FILTER	2487
HPC-57	PEG STORAGE TANK	2487
HPC-58	DEG STORAGE TANK	2487
PLU-10	METAL SOLS HEPA FILTER	76621
PLU-11	COOLING TOWER	76621
PLU-2	DUST SILO BAG/HEPA FILTER	76621
PLU-3A	CALCINER	76621
PLU-3B	CALCINER	76621
PLU-4	DRYER	76621

### 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
PLU-6	HEPA FILTER	76621
PLU-7	HEPA FILTER	76621
PLU-8	ACETIC ACID TANK	76621
PLU-FUG	FUGITIVES	76621
RDL-5	BOILER	9626
RSC-1	RESEARCH BOILER #1	7/09/12/1989
RSC-2	RESEARCH BOILER #2	7/09/12/1989
UTL-DSL	FORKLIFT DIESEL TANK	106.473/03/14/1997
UTL-GAS	FORKLIFT GASOLINE TANK	106.473/03/14/1997
UTL-MERC1	METHYL MERCAPTAN TANK 1	106.473/03/14/1997
UTL-MERC2	METHYL MERCAPTAN TANK 2	106.473/03/14/1997
UTL-PRT1	CENTRAL SHOP PARTS CLEANER	106.454/07/08/1998
UTL-PRT2	SATELLITE SHOP PARTS CLEANER	106.454/07/08/1998
UTL-SUB	SUBSTATION DIESEL TANK	106.473/03/14/1997
VSP-9	BOILER	21995

**Appendix A**

**Acronym List ..... 73**

## 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 <sub>2</sub> 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 <sub>x</sub>	.....	nitrogen oxides
NSPS	.....	New Source Performance Standard (40 CFR Part 60)
NSR	.....	New Source Review
ORIS	.....	Office of Regulatory Information Systems
Pb	.....	lead
PBR	.....	Permit By Rule
PM	.....	particulate matter
ppmv	.....	parts per million by volume
PSD	.....	prevention of significant deterioration
RO	.....	Responsible Official
SO <sub>2</sub>	.....	sulfur dioxide
TCEQ	.....	Texas Commission on Environmental Quality
TSP	.....	total suspended particulate
TVP	.....	true vapor pressure
U.S.C.	.....	United States Code
VOC	.....	volatile organic compound

**Appendix B**

**Major NSR Summary Table..... 75**

Permit Number: 9402 (N022)

Issuance Date: 2/27/2014

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
FCC-3A	Feed Hopper Bag Filter	PM	0.04	0.18			
FCC-9A	Final Product Bag Filter	PM <sub>10</sub>	0.58	2.55			
FCC-10	2nd Molsieve Flash Drier	VOC	0.08	0.28			
		NO <sub>x</sub>	2.07	7.39			
		SO <sub>2</sub>	0.01	0.03			
		CO	1.21	4.33			
		PM	0.60	2.24			
		PM <sub>10</sub>	0.60	2.24			
		PM <sub>2.5</sub>	0.60	2.24			
FCC-11	Reslurry Tank Bag Filter	PM <sub>10</sub>	0.04	0.17			
FCC-11A	Calciner vent scrubber	NH <sub>3</sub>	2.40	10.51			
		PM	0.01	0.01			
FCC-12	2nd Molsieve Calciner	VOC	0.03	0.12			
		NO <sub>x</sub>	0.69	3.01			
		SO <sub>2</sub>	0.01	0.01			
		PM	0.04	0.16			
		CO	0.40	1.76			
FCC-14	Rare Earth Chloride Storage Tank	HCl	0.03	0.01			
FCC-15	Ammonia Scrubber	NH <sub>3</sub>	1.28	5.60			
FCC-16	Portaclay/Reslurry Vent Bag Filter	PM <sub>10</sub>	0.02	0.11			
FCC-17	Sulfuric Acid Tank	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01			
		SO <sub>3</sub>	0.01	0.01			
FCC-18	Strike Tanks Vent	PM <sub>10</sub>	0.84	2.95			
FCC-19	Kaolin Dosing Bag Hopper	PM	0.29	1.26			
FCC-20	C Alumina Storage Silo Bag Filter	PM	0.16	0.53			
		PM <sub>10</sub>	0.16	0.53			
		PM <sub>2.5</sub>	0.16	0.53			

FCC-21	Spray Dryer	PM	7.91	31.50	11,16	3,11,16	11,16
		PM <sub>10</sub>	7.91	31.50			
		PM <sub>2.5</sub>	7.91	31.50			
		VOC	1.05	4.10			
		NO <sub>x</sub>	19.51	54.53			
		SO <sub>2</sub>	0.11	0.45			
		CO	15.98	62.62			
		NH <sub>3</sub>	1.50	6.57			

N/A	Final Product Calciner II (12)	NO <sub>x</sub> (NA)	2.31	10.12			
		PM	0.26	1.14			
		PM <sub>10</sub>	0.26	1.14			
		PM <sub>2,5</sub>	0.26	1.14			
		CO	2.87	12.56			
		VOC	0.19	0.82			
		SO <sub>2</sub>	0.02	0.09			
FCC-23	Separator Fines Bag Filter	PM	0.48	1.90		3,4	
		PM <sub>10</sub>	0.48	1.90			
		PM <sub>2,5</sub>	0.48	1.90			
FCC-27	FCC Boiler	PM	0.73	3.22	6,8,11,12,16	6,8,11,12,16	6,11,12,16
		PM <sub>10</sub>	0.73	3.22			
		PM <sub>2,5</sub>	0.73	3.22			
		VOC	0.53	2.33			
		NO <sub>x</sub>	3.57	15.61			
		SO <sub>2</sub>	0.06	0.25			
		CO	8.11	35.54			
FCC-34	Ammonia Absorber	NH <sub>3</sub>	0.68	2.98			
FCC-40	Kaolin Unloading Bag Filter	PM <sub>10</sub>	0.15	0.32			
FCC-41	Sulfuric Acid Storage Tank	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01			
		SO <sub>3</sub>	0.01	0.01			
FCC-42	Filter Hoods Vent (9)	NH <sub>3</sub>	0.20	0.87			
FCC-43	Ammonium Chloride Tank (7)	NH <sub>3</sub>	0.01	0.01			
FCC-44	Ammonia Storage Tank/Scrubber	NH <sub>3</sub>	0.03	0.01			
FCC-46	Ammonia Scrubber	NH <sub>3</sub> (8)	0.31	1.35	16,23,24	16,23,24	16,23,24
		HCl	0.01	0.01			
FCC-51	Crude Product Bag Filter	PM <sub>10</sub>	0.07	0.28			
FCC-52	Crude Product Bag Filter	PM <sub>10</sub>	0.07	0.28		,4	
FCC-53	Crude Product Bag Filter	PM <sub>10</sub>	0.01	0.05		4	
FCC-54	Crude Product Bag Filter	PM <sub>10</sub>	0.03	0.09			
FCC-55	Ventilation Air Bag Filter	PM <sub>10</sub>	0.01	0.04			
FCC-57	Product Transport Bag Filter	PM <sub>10</sub>	0.04	0.18			
FCC-58	Product Dist. Conveyor Filter	PM <sub>10</sub>	0.42	1.82			
FCC-60	DBS Filter Vent Hood (7)	NH <sub>3</sub>	0.35	0.01			
FCC-61/FCC-76	Product Air Slide Bag Filter (10)	PM	0.17	0.76		4	
		PM <sub>10</sub>	0.17	0.76			
		PM <sub>2,5</sub>	0.17	0.76			
FCC-62	Product Air Slide Bag Filter	PM <sub>10</sub>	0.09	0.38			
FCC-63	Weigh Scale Bag Filter	PM <sub>10</sub>	0.26	1.16		4	
FCC-64	Blended Product Bag Filter	PM <sub>10</sub>	0.24	1.07		4	
FCC-65	Bulk Loading Station Bag Filter	PM <sub>10</sub>	0.24	1.07			
FCC-66	Portable Bag Filter	PM <sub>10</sub>	0.09	0.19		4	
		Ni	0.01	0.01			
		CO	0.01	0.01			
FCC-67	Diesel Engine	PM	0.32	0.05			
		PM <sub>10</sub>	0.32	0.05			
		PM <sub>2,5</sub>	0.32	0.05			
		NO <sub>x</sub>	2.85	0.43			

		CO	0.44	0.07			
		SO <sub>2</sub>	0.14	0.02			
		VOC	0.22	0.03			
FCC-68	Kaolin Silo Bag Filter	PM	0.23	0.60			
		PM <sub>10</sub>	0.23	0.60			
		PM <sub>2.5</sub>	0.23	0.60			
FCC-69	C Alumina Dosing Bag Filter	PM	0.25	0.44			
		PM <sub>10</sub>	0.25	0.44			
		PM <sub>2.5</sub>	0.25	0.44			
FCC-70	BOC Silo Bag Filter	PM	0.19	0.43			
		PM <sub>10</sub>	0.19	0.43			
		PM <sub>2.5</sub>	0.19	0.43			
FCC-71	BOC Dosing Bag Filter	PM	0.20	0.44			
		PM <sub>10</sub>	0.20	0.44			
		PM <sub>2.5</sub>	0.20	0.44			
FCC-72	Vacuum System 434-901 (6) (9)	NH <sub>3</sub>	0.43	1.87			
FCC-73	Vacuum System 431-910 (6) (9)	NH <sub>3</sub>	0.01	0.01			
FCC-74	Final Product Calciner II (12)	PM	0.26	1.14	16,17	16,17	16,17
		PM <sub>10</sub>	0.26	1.14			
		PM <sub>2.5</sub>	0.26	1.14			
		NO <sub>x</sub> (NA)	2.31	10.12			
		CO	2.87	12.56			
		VOC	0.19	0.82			
		SO <sub>2</sub>	0.02	0.09			
FCC-75	SCR System (Thermal Oxidizer/SCR)	PM	0.05	0.23	18	3,18	18
		PM <sub>10</sub>	0.05	0.23			
		PM <sub>2.5</sub>	0.05	0.23			
		N <sub>2</sub> O	32.30	141.47			
		NO <sub>x</sub> (NA)	3.00	13.14			
		SO <sub>2</sub>	0.01	0.02			
		NH <sub>3</sub>	0.34	1.48			
FCC-77	FC BOC Storage Silo Bag Filter	PM	0.19	0.41			
		PM <sub>10</sub>	0.19	0.41			
		PM <sub>2.5</sub>	0.19	0.41			
FCC-79	Diesel Engine II (11)	PM	0.16	0.16			
		PM <sub>10</sub>	0.16	0.16			
		PM <sub>2.5</sub>	0.16	0.16			
		NO <sub>x</sub>	2.44	2.44			
		CO	0.23	0.23			
		VOC	0.06	0.16			
		SO <sub>2</sub>	0.30	0.30			
FCC-80	Portable Bag Filter II	PM	0.09	0.19		4	
		PM <sub>10</sub>	0.09	0.19			
		PM <sub>2.5</sub>	0.09	0.19			
FCC-81	Tote Bin Bag Filter	PM	0.02	0.09			
		PM <sub>10</sub>	0.02	0.09			
		PM <sub>2.5</sub>	0.02	0.09			
FCC-FUG	Fugitives (5)	NH <sub>3</sub>	0.25	1.12	9, 10	9,10	10

		H <sub>3</sub> PO <sub>4</sub>	0.01	0.01		
		HNO <sub>3</sub>	0.11	0.48		
		H <sub>2</sub> SO <sub>4</sub>	0.01	0.01		
FCC-82	Portable Bag Filter	PM <sub>10</sub>	0.09	0.19		4
FCC-83	Wastewater Sump	NH <sub>3</sub>	0.13	0.57		
FCC-84	Fundabac Filter	NH <sub>3</sub>	0.01	0.01		
FCC-85	Silo Baghouse	PM <sub>10</sub>	0.15	0.66		
FCC-86	Loadout Baghouse	PM <sub>10</sub>	0.01	0.05		
FCC-CASCADE	Cascade Reactor Vent	NH <sub>3</sub>	0.01	0.01		
Permit Wide		NO <sub>x</sub>	-	81.00		

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

NOX - total oxides of nitrogen

SO2 - sulfur dioxide

PM – total particulate matter, suspended in the atmosphere, including PM10 and PM2.5, as represented

PM10 - total particulate matter equal to or less than 10 microns in diameter, including PM2.5, as represented

PM2.5 - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

SO3 – sulfur trioxide

NH3- ammonia

HCl – hydrogen chloride

H2SO4 – sulfuric acid

Ni – Nickel

N2O – nitrous oxide

H3PO4 – phosphoric acid

HNO3 – nitric acid

(NA) – Nonattainment review

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

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

(6) Either Vacuum System 434-901 (EPN FCC-72) or Vacuum System 434-910 (EPN FCC-73) may be used alone to provide vacuum to all the equipment normally served by the two vacuum systems during periods of maintenance or alternate operations. The emissions from the vacuum system remaining in operation during such periods shall not exceed the sum of the maximum allowable emission rates for EPNs FCC-72 and FCC-73.

(7) These emission points are typically routed to the Ammonia Scrubber (EPN 46), except when the NH3 scrubber is not in operation due to maintenance of the scrubber.

(8) Total emissions of ammonia plus ammonium hydroxide.

(9) These emission points are typically routed to the Ammonia Scrubber (EPN 46), but may discharge directly to atmosphere when the DBW section of the FCC Catalyst Unit is not operating and no NH3-containing solutions are used in alumina preparation section.

(10) PM10 emissions will happen from either FCC-61 or FCC-76, but not both.

(11) Emissions are based on 4,160 hours per year operation.

(12) Final Product Calciner II may be routed through either EPN FCC-74 or EPN FCC-21.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
AIR QUALITY PERMIT



A Permit Is Hereby Issued To  
**Albemarle Corporation**  
Authorizing the Construction and Operation of  
**Fluid Cracking Catalyst Unit**  
Located at **Pasadena, Harris County, Texas**  
Latitude 29° 38' 24" Longitude 95° 3' 54"

Permit: 9402

Amendment Date : February 27, 2014

Renewal Date: October 6, 2013

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 116.116 (30 TAC 116.116)]
- 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(a), (b) and (c)]
- 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)(iii)]
- 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; comply with any additional recordkeeping requirements specified in special conditions attached to 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)]
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 for upsets and maintenance 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, regulations, 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 a condition of "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.

## Special Conditions

Permit Numbers 9402 and No22

### Emission Limits and Work Practices

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources-Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate (ER) limits on that table and other operating conditions specified in this permit. **(10/03)**
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. **(02/14)**
3. The facilities covered by this permit shall not be operated unless all associated air pollution abatement equipment is in good working order and in use during normal facility operations. All capture and collection systems shall be effective in controlling emissions produced by the facility's equipment. The capture and collection systems shall be maintained free of holes, cracks, and other conditions that would reduce the collection efficiency of the emission control system. **(NA 12/99)**
4. An amount of barium titanate may be added to the FCC catalyst so that the catalyst product contains no more than 15 wt% barium titanate. Alternately, an amount of barium titanate and manganese nitrate or manganese sulfate may be added to the FCC catalyst so that the catalyst product contains no more than 10 wt% barium titanate and 2 wt% manganese. Records documenting the amounts of barium and manganese on produced catalyst shall be maintained. **(06/10)**
5. The total annual emissions of oxides of nitrogen (NO<sub>x</sub>) from this facility are limited to 81.00 tons per year. **(02/14)**

### Federal Applicability

6. 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): **(02/14)**
  - A. Subpart A, General Provisions.

- B. Subpart Dc, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
7. If any condition of this permit is more stringent than the applicable regulations in Special Condition No. 6, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated. **(02/14)**

#### Operational Practices

8. All combustion units shall be fired with natural gas containing no more than 5 grains of total sulfur per 100 dry standard cubic feet (dscf). **(02/14)**

#### Leak Detection and Repair Program

9. Piping, Valves, Pumps, and Compressors in Ammonia Service
- A. Audio, olfactory, and visual checks for ammonia leaks within the operating area shall be made at least once every shift.
  - B. Immediately, but no later than one hour upon detection of a leak, plant personnel shall take the following actions:
    - (1) Isolate the leak if possible.
    - (2) Commence repair or replacement of the leaking component.
    - (3) Use a leak collection/containment system to prevent or minimize the leak until repair or replacement can be made if immediate repair is not possible.

Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the Texas Commission on Environmental Quality (TCEQ) upon request. **(07/01)**

10. Fugitive ammonia emissions from this permitted unit shall be minimized at all times. The fugitive control program shall include (but is not limited to) the use of the programmable controller unit to monitor and control filter vacuum conditions and process ammonia usage.

## Boilers

11. Emissions of nitrogen oxides (NO<sub>x</sub>) from the Steam Boiler (Emission Point No. [EPN] FCC-27) shall not exceed 0.036 pound per MMBtu (lb/MMBtu) of heat input with the exception of firing rates between 55% and 35% of maximum firing rate and below 35% of maximum firing rate where the lb/MMBtu shall be determined by the following equations: **(8/11)**

For firing rates between 55% and 35% of maximum firing rate:

$$\text{lb/MMBtu NO}_x = 1.5881 - 1.1339(\ln[\text{firing rate}] + 0.2765(\ln[\text{firing rate}])^2 - 0.0225[\ln(\text{firing rate})]^3)$$

For firing rates below 35% of maximum firing rate,

$$\text{lb/MMBtu NO}_x = 0.0715 + 0.0024(\text{firing rate}) - 0.000096944(\text{firing rate})^2$$

where: firing rate is the percent of maximum for each burner.

The permit holder shall install and operate a fuel flow meter to continuously monitor the fuel feed rate in standard cubic feet per hour (scf/hr) to the Steam Boiler and the hourly average fuel usage shall be recorded daily and used to determine the firing rate in MMBtu/hr. The fuel flow meter shall be calibrated at a frequency in accordance with the manufacturer's specification or at least annually, whichever is more frequent, and shall be accurate to within 5 percent. The emissions in tons per year (tpy) shall be updated quarterly and shall include the calculation methodologies to determine those emissions. These records shall be made available upon request to the Executive Director of the TCEQ, his designated representative, or any local air pollution control program having jurisdiction. **(8/11)**

NO<sub>x</sub> generated by combustion in the spray dryer burner and emitted at FCC-21 will not exceed 0.07 lb/MMBtu at maximum firing rate. **(02/14)**

12. Fuel usage rates of the Steam Boiler, EPN FCC-27, shall be monitored and recorded continuously to determine the boiler's firing rates. Stack sampling results and firing rates will be used to demonstrate compliance with the emission limits authorized for this EPN. **(05/02)**

## Bag Filter Requirements

13. All bag filters listed below shall achieve an outlet grain loading of no more than 0.01 grain per dry standard cubic feet (dscf).

<u>EPN</u>	<u>Name</u>
FCC-3A	Feed Hopper Bag Filter
FCC-9A	Final Product Bag Filter
FCC-16	Potaclay/Reslurry Vent Bag Filter
FCC-19	Kaolin Dosing Bag Hopper
FCC-20	C Alumina Storage Silo Bag Filter
FCC-21	Spray Dryer Bag Filter
FCC-23	Separator Fines Bag Filter
FCC-40	Kaolin Unloading Bag Filter
FCC-51	Crude Product Bag Filter
FCC-52	Crude Product Bag Filter
FCC-53	Crude Product Bag Filter
FCC-54	Crude Product Bag Filter
FCC-55	Ventilation Air Bag Filter
FCC-57	Product Transport Bag Filter
FCC-58	Product Conveyor Bag Filter
FCC-61	Product Air Slide Bag Filter
FCC-62	Product Air Slide Bag Filter
FCC-63	Product Vacuum Bag Filter
FCC-64	Blending Silo Bag Filter
FCC-65	Bulk Loading Station Vent Stack
FCC-66	Portable Bag Filter
FCC-68	Kaolin Silo Bag Filter
FCC-69	C Alumina Dosing Bag Filter
FCC-70	BOC Silo Bag Filter
FCC-71	BOC Dosing Bag Filter
FCC-76	Product Air Slide Bag Filter
FCC-77	FC BOC Storage Silo Bag Filter
FCC-78	FC BOC Dosing Hopper Bag Filter
FCC-80	Portable Bag Filter II
FCC-81	Tote Bin Bag Filter
FCC-82	Portable Bag Filter (From PBR 84495)

**(6/05)**

14. This facility shall develop and implement a plan for cleaning and maintenance of all abatement equipment associated with the product conveying/loading system. A copy of the cleaning and maintenance plan shall be kept at the plant site. All bag filters associated with the product conveying/loading system shall undergo a preventative maintenance inspection on an annual basis.

Initial Determination of Compliance

15. Sampling ports and platforms shall be incorporated into the design of the ammonia scrubber and spray dryer stacks according to the specifications set forth

in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.

16. The holder of this permit 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 Main Bag Filter (EPN FCC-46), Spray Dryer Bag Filter (FCC-21), Selective Catalytic Reduction (SCR) System (EPN FCC-75), Final Product Calciner (EPN FCC-74), and Steam Boiler (EPN FCC-27). This testing shall also verify the required control efficiency for the SCR system required by Special Condition No. 17. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.
- A. The appropriate TCEQ Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) The name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or the EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Office of Permitting and Registration, Air

Permits Division. Test waivers and alternate/equivalent procedure proposals for New Source Performance Standards (NSPS) testing which must have the EPA approval shall be submitted to the TCEQ Regional Director.

- B. Air contaminants emitted from the main bag filter, spray dryer bag filter, and vacuum system to be tested for include (but are not limited to) ammonia. (The testing of the Main Bag Filter [FCC-46] was performed on January 7, 2002. The testing of the Spray Dryer Bag Filter [FCC-21] was performed on June 6, 2000. The testing of the Vacuum System [FCC-72] was performed on June 7, 2000 and June 8, 2000).

Air contaminants emitted from the SCR system to be tested for include (but are not limited to) NO<sub>x</sub>, nitrous oxide (N<sub>2</sub>O), and ammonia. Air contaminants emitted from the final product calciner to be tested for include (but are not limited to) NO<sub>x</sub> and carbon monoxide. (The testing of the SCR System [FCC-75] was performed on June 7, 2001. The testing of the Final Product Calciner [FCC-74] was performed on June 7, 2001 and June 8, 2001. Retesting of the Final Product Calciner [FCC-74] took place on August 1, 2002.)

- C. Sampling shall occur within 60 days after initial start-up of the facilities and at such other times as may be required by the Executive Director of the TCEQ. Sampling for air contaminants emitted from the calciner scrubber authorized with the permit amendment dated August 6, 1999, shall occur within 60 days after initial startup of the facilities and at such other times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires the EPA approval, and requests shall be submitted to the TCEQ Regional Director.
- D. The plant shall operate so as to provide maximum flow rates to the respective devices being tested during stack emission testing. Primary operating parameters that enable determination of these maximum flow rates shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the plant is unable to attain these maximum rates during testing, then future operations may be limited to the rates established during testing. Additional stack testing may be required when higher rates are achieved. The FCC Boiler, EPN FCC-27, shall be tested over a range of expected operational firing rates as reviewed and approved by TCEQ Regional Office

personnel. (Testing of FCC-27 Boiler has been performed on January 16, 2003 and January 17, 2003)

- E. Copies of the final sampling report shall be forwarded to the TCEQ within 30 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ Houston Regional Office.

One copy to the Harris County Air Pollution Control Department, Pasadena. **(NA 10/03)**

#### FCC-75 Monitoring

17. No later than the date for initial performance testing under Special Condition No. 15 of this permit, the holder of this permit shall install, calibrate, performance test, maintain, and properly operate a continuous emission rate monitoring system (CERMS) to measure and record the in-stack concentration of NO<sub>x</sub> and the volumetric flow rate from the SCR system Stack (EPN FCC-75).

The measurements shall be reduced to average values at least once every 15 minutes and shall then be used to generate and record ER data (pounds per hour [lb/hr] and/or tons per year [TPY]) in units of the standard at least once every 15 minutes). The ER data shall be reduced to hourly average values at least once every hour using a minimum of four equally-spaced data points from each one-hour period with the following exception: a minimum of two equally-spaced data points may be used during the time period single daily zero and span checks are being performed. The hourly average ER data from the CERMS shall then be used to demonstrate compliance with the conditions of this permit on a continuous basis.

- A. The CERMS shall meet the requirements specified in 40 CFR Part 60, Appendix B, Performance Specification No. 6. The CERMS shall also be adjusted (if applicable) for bias according to the procedures found at 40 CFR Part 75, Appendix A, § 7.6 with the following exception: the pollutant values in lb/hr and/or TPY form the basis for the bias test and adjustment calculation, if necessary.
- B. The holder of this permit shall assure that the CERMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1 with the following exceptions: the volumetric flow rate monitor is exempt from cylinder gas audit requirements, and

cylinder gases certified following the EPA Traceability Protocol No. 1 shall be used for the gaseous analyzer daily zero and span checks. Any CERMS excessive audit inaccuracies, as specified in 40 CFR Part 60, Appendix F, Procedure 1, § 5.2.3, and any CERMS downtime in excess of 5 percent of the operating hours in a calendar quarter shall be reported to the TCEQ Houston Regional Office; and necessary corrective action shall be taken.

Supplemental stack concentration and volumetric flow rate measurements may be required at the discretion of the appropriate TCEQ Regional Director.

- C. All monitoring data and quality-assurance data shall be maintained by the source for a period of two years and shall be made available to the TCEQ Executive Director or designated representative upon request.
  - D. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required relative accuracy test audit in order to provide them the opportunity to observe the testing. **(NA 07/01)**
18. The facility owner or operator shall install a process control instrument to continuously monitor ammonia concentrations downstream of the SCR. Data from this monitor shall be recorded at least hourly by the process control system, and transferred to a written record on a weekly basis. If this monitor indicates an hourly ammonia concentration exceeding 10 parts per million by volume (ppmv), a stain tube shall be used to test the ammonia concentration in the SCR stack. If the stain tube indicates ammonia concentrations in the SCR stack above 10 ppmv for three consecutive hours, daily stain tube checks shall continue until stack testing for ammonia is conducted (stack sampling for ammonia shall be conducted within one week, or as extended by the TCEQ Houston Regional Office). The TCEQ Regional Office shall be notified that stack sampling is necessary within 24 hours of when the test is scheduled. A pretest meeting shall be held with the TCEQ Regional Office before the stack test is conducted.

If the holder of this permit continues hourly stain tube testing after the initial three hours, and the additional stain tube tests consistently indicate 10 ppmv ammonia or less after the initial stain tube tests, the TCEQ Regional Office may waive the stack sampling requirement. Stack testing can be accomplished either through stack sampling as outlined in Special Condition No. 15 or by the use of other testing techniques as approved by the TCEQ Regional Director. Information concerning the method of calibration of the process control instrument and records of those calibrations shall be maintained on-site. In addition, records of stain tube concentrations shall be maintained on-site. All

records shall be maintained on-site for a period of two years and made available to representatives of the TCEQ upon request. **(NA 07/01)**

19. The SCR system (thermal oxidizer/SCR) shall operate with a 90 percent control efficiency for N<sub>2</sub>O and a 99 percent control efficiency for total inlet NO<sub>x</sub> calculated as nitrogen dioxide (NO<sub>2</sub>) equivalents.

Where:

$$\text{NO}_2 \text{ Eq. inlet} = (\text{N}_2\text{O inlet} - \text{N}_2\text{O outlet}) \times (2.091 \text{ lb NO}_2/\text{lb N}_2\text{O}) + \text{NO}_x \text{ inlet and}$$

$$\text{NO}_2 \text{ Eq. outlet} = \text{NO}_x \text{ outlet}$$

**(NA 05/03)**

20. Fuel used for the final product calciner heater shall be limited to pipeline-quality, sweet natural gas containing no more than 5 grains of total sulfur per 100 dscf. **(06/00)**
21. The NO<sub>x</sub> emissions from the final product calciner heater shall not exceed the lb/MMBtu ratio determined by the following equation:

$$\text{lb/MMBtu NO}_x = 0.13791 - 0.01398 \times \ln [\text{firing rate}] - 0.00037 \times (\ln [\text{firing rate}])^2$$

where:

firing rate is the percent of maximum for each burner. **(NA 05/03)**

#### Ammonia Scrubbers

22. The Ammonia Storage Tank (EPN FCC-44) shall vent through its dedicated ammonia tank scrubber operating at no less than 99 percent ammonia removal efficiency. **(10/03)**
23. The Ammonia Scrubber (EPN FCC-46) shall control emissions of total ammonia plus ammonium and shall operate at not less than 99 percent destruction/reduction efficiency or 14 ppmv concentration of total ammonia plus ammonium in the stack, whichever is less stringent. The scrubbing solution shall be maintained at or below a pH of 3.0 SU and analyzed at least once every hour. Records of pH measurements and scrubber down time shall be maintained for a minimum of two years and be made available to the TCEQ Executive Director or representative upon request. **(07/01)**

24. The holder of this permit 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 Ammonia Scrubber (EPN 46). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with the appropriate EPA Reference Methods.
- A. The TCEQ Houston Regional Office shall be contacted as soon as testing is scheduled, but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Procedure used to determine flow rate and concentration of air contaminants to the ammonia scrubber during and after 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 submitting the test reports. A written proposed description of any deviation from sampling procedures specified in permit conditions, the TCEQ, or the EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Permitting and Registration, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for NSPS testing which must have the EPA approval shall be submitted to the TCEQ Regional Director.

- B. Air contaminants emitted from the ammonia scrubber and to be tested for include (but are not limited to) destruction/reduction efficiency of total ammonia plus ammonium.
- C. Sampling shall occur within 60 days after initial start-up of the facilities and at such other times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires the EPA approval, and requests shall be submitted to the TCEQ Regional Director.
- D. The plant shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of production rates shall be monitored and recorded during the stack test. These parameters shall be determined at the pretest meeting and shall be stated in the sampling report. If the plant is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.
- E. A copy of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:
  - One copy to the TCEQ Houston Regional Office. **(07/01)**

Offsets

- 25. This Nonattainment New Source Review permit is issued based on the permanent retirement of TCEQ Emission Reduction Credit Certificate (ERCC) Number 1345 for 30.2 tpy of NO<sub>x</sub> emissions. This ERCC provides offsets at the rate of 1.3:1.0 for the 23.3 tpy of NO<sub>x</sub> emissions authorized under this permit. **(NA 06/00)**

Dated: February 27, 2014

Emission Sources - Maximum Allowable Emission Rates

Permit Number 9402 and N022

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)
FCC-3A	Feed Hopper Bag Filter	PM	0.04	0.18
FCC-9A	Final Product Bag Filter	PM <sub>10</sub>	0.58	2.55
FCC-10	2nd Molsieve Flash Dryer Bag Filter	VOC	0.08	0.28
		NO <sub>x</sub>	2.07	7.39
		SO <sub>2</sub>	0.01	0.03
		PM	0.60	2.24
		PM <sub>10</sub>	0.60	2.24
		PM <sub>2.5</sub>	0.60	2.24
		CO	1.21	4.33
FCC-11	Reslurry Tank Bag Filter	PM <sub>10</sub>	0.04	0.17
FCC-11A	Calciner Vent Scrubber	NH <sub>3</sub>	2.40	10.51
		PM	0.01	0.01
FCC-12	2nd Molsieve Calciner	VOC	0.03	0.12
		NO <sub>x</sub>	0.69	3.01
		SO <sub>2</sub>	0.01	0.01
		PM	0.04	0.16
		CO	0.40	1.76
FCC-14	Rare Earth Chloride Storage Tank	HCl	0.03	0.01
FCC-15	Ammonia Scrubber	NH <sub>3</sub>	1.28	5.60

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FCC-16	Portaclay/Reslurry Vent Bag Filter	PM <sub>10</sub>	0.02	0.11
FCC-17	Sulfuric Acid Tank	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01
		SO <sub>3</sub>	0.01	0.01
FCC-18	Strike Tanks Vent	PM <sub>10</sub>	0.84	2.95
FCC-19	Kaolin Dosing Bag Hopper	PM	0.29	1.26
FCC-20	C Alumina Storage Silo Bag Filter	PM	0.16	0.53
		PM <sub>10</sub>	0.16	0.53
		PM <sub>2.5</sub>	0.16	0.53
FCC-21	Spray Dryer Bag Filter	VOC	1.05	4.10
		NO <sub>x</sub>	19.51	54.53
		SO <sub>2</sub>	0.11	0.45
		PM	7.91	31.50
		PM <sub>10</sub>	7.91	31.50
		PM <sub>2.5</sub>	7.91	31.50
		CO	15.98	62.62
		NH <sub>3</sub>	1.50	6.57
	Final Product Calciner II (12)	NO <sub>x</sub> (NA)	2.31	10.12
		PM	0.26	1.14
		PM <sub>10</sub>	0.26	1.14
		PM <sub>2.5</sub>	0.26	1.14
		CO	2.87	12.56
		VOC	0.19	0.82
	SO <sub>2</sub>	0.02	0.09	

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FCC-23	Separator Fines Bag Filter	PM	0.48	1.90
		PM <sub>10</sub>	0.48	1.90
		PM <sub>2.5</sub>	0.48	1.90
FCC-27	FCC Boiler	VOC	0.53	2.33
		NO <sub>x</sub>	3.57	15.61
		SO <sub>2</sub>	0.06	0.25
		PM	0.73	3.22
		PM <sub>10</sub>	0.73	3.22
		PM <sub>2.5</sub>	0.73	3.22
		CO	8.11	35.54
FCC-34	Ammonia Absorber	NH <sub>3</sub>	0.68	2.98
FCC-40	Kaolin Unloading Bag Filter	PM <sub>10</sub>	0.15	0.32
FCC-41	Sulfuric Acid Storage Tank	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01
		SO <sub>3</sub>	0.01	0.01
FCC-42	Filter Hoods Vent (9)	NH <sub>3</sub>	0.20	0.87
FCC-43	Ammonium Chloride Tank (7)	NH <sub>3</sub>	0.01	0.01
FCC-44	Ammonia Storage Tank/Scrubber	NH <sub>3</sub>	0.03	0.01
FCC-46	Ammonia Scrubber	NH <sub>3</sub> (8)	0.31	1.35
		HCl	0.01	0.01
FCC-51	Crude Product Bag Filter	PM <sub>10</sub>	0.07	0.28
FCC-52	Crude Product Bag Filter	PM <sub>10</sub>	0.07	0.28
FCC-53	Crude Product Bag Filter	PM <sub>10</sub>	0.01	0.05

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FCC-54	Crude Product Bag Filter	PM <sub>10</sub>	0.03	0.09
FCC-55	Ventilation Air Bag Filter	PM <sub>10</sub>	0.01	0.04
FCC-57	Product Transport Bag Filter	PM <sub>10</sub>	0.04	0.18
FCC-58	Product Dist. Conveyor Bag Filter	PM <sub>10</sub>	0.42	1.82
FCC-60	DBS Filter Vent Hood (7)	NH <sub>3</sub>	0.35	0.01
FCC-61/FCC-76	Product Air Slide Bag Filter (10)	PM	0.17	0.76
		PM <sub>10</sub>	0.17	0.76
		PM <sub>2.5</sub>	0.17	0.76
FCC-62	Product Air Slide Bag Filter	PM <sub>10</sub>	0.09	0.38
FCC-63	Weigh Scale Bag Filter	PM <sub>10</sub>	0.26	1.16
FCC-64	Blended Product Bag Filter	PM <sub>10</sub>	0.24	1.07
FCC-65	Bulk Loading Station Bag Filter	PM <sub>10</sub>	0.24	1.07
FCC-66	Portable Bag Filter	PM <sub>10</sub>	0.09	0.19
		Ni	0.01	0.01
		CO	0.01	0.01
FCC-67	Diesel Engine	NO <sub>x</sub>	2.85	0.43
		CO	0.44	0.07
		PM	0.32	0.05
		PM <sub>10</sub>	0.32	0.05
		PM <sub>2.5</sub>	0.32	0.05
		SO <sub>2</sub>	0.14	0.02

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		VOC	0.22	0.03
FCC-68	Kaolin Silo Bag Filter	PM	0.23	0.60
		PM <sub>10</sub>	0.23	0.60
		PM <sub>2.5</sub>	0.23	0.60
FCC-69	C Alumina Dosing Bag Filter	PM	0.25	0.44
		PM <sub>10</sub>	0.25	0.44
		PM <sub>2.5</sub>	0.25	0.44
FCC-70	BOC Silo Bag Filter	PM	0.19	0.43
		PM <sub>10</sub>	0.19	0.43
		PM <sub>2.5</sub>	0.19	0.43
FCC-71	BOC Dosing Bag Filter	PM	0.20	0.44
		PM <sub>10</sub>	0.20	0.44
		PM <sub>2.5</sub>	0.20	0.44
FCC-72	Vacuum System 434-901 (6) (9)	NH <sub>3</sub>	0.43	1.87
FCC-73	Vacuum System 431-910 (6) (9)	NH <sub>3</sub>	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)
FCC-74	Final Product Calciner II (12)	NO <sub>x</sub> (NA)	2.31	10.12
		PM	0.26	1.14
		PM <sub>10</sub>	0.26	1.14
		PM <sub>2.5</sub>	0.26	1.14
		CO	2.87	12.56
		VOC	0.19	0.82
		SO <sub>2</sub>	0.02	0.09
FCC-75	SCR System (Thermal Oxidizer/SCR)	N <sub>2</sub> O	32.30	141.47
		NO <sub>x</sub> (NA)	3.00	13.14
		PM	0.05	0.23
		PM <sub>10</sub>	0.05	0.23
		PM <sub>2.5</sub>	0.05	0.23
		SO <sub>2</sub>	0.01	0.02
		NH <sub>3</sub>	0.34	1.48
FCC-77	FC BOC Storage Silo Bag Filter	PM	0.19	0.41
		PM <sub>10</sub>	0.19	0.41
		PM <sub>2.5</sub>	0.19	0.41
FCC-79	Diesel Engine II (11)	NO <sub>x</sub>	2.44	2.44
		CO	0.23	0.23
		VOC	0.06	0.06
		PM	0.16	0.16
		PM <sub>10</sub>	0.16	0.16
		PM <sub>2.5</sub>	0.16	0.16

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		SO <sub>2</sub>	0.30	0.30
FCC-80	Portable Bag Filter II	PM	0.09	0.19
		PM <sub>10</sub>	0.09	0.19
		PM <sub>2.5</sub>	0.09	0.19
FCC-81	Tote Bin Bag Filter	PM	0.02	0.09
		PM <sub>10</sub>	0.02	0.09
		PM <sub>2.5</sub>	0.02	0.09
FCC-FUG	Fugitives (5)	NH <sub>3</sub>	0.25	1.12
		H <sub>3</sub> PO <sub>4</sub>	0.01	0.01
		HNO <sub>3</sub>	0.11	0.48
FCC-82	Portable Bag Filter	PM	0.09	0.19
		PM <sub>10</sub>	0.09	0.19
		PM <sub>2.5</sub>	0.09	0.19
FCC-CAASCADE	Cascade Reactor Vent	NH <sub>3</sub>	0.01	0.01
PERMITWIDE	Permit Wide	NO <sub>x</sub>	--	81.00

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

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

- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- SO<sub>3</sub> - sulfur trioxide
- CO - carbon monoxide
- NH<sub>3</sub> - ammonia

## Emission Sources - Maximum Allowable Emission Rates

HCl hydrogen chloride

H<sub>2</sub>SO<sub>4</sub> sulfuric acid

Ni nickel

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

H<sub>3</sub>PO<sub>4</sub> phosphoric acid

HNO<sub>3</sub> nitric acid

(NA) - Nonattainment Review

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Either Vacuum System 434-901 (EPN FCC-72) or Vacuum System 434-910 (EPN FCC-73) may be used alone to provide vacuum to all the equipment normally served by the two vacuum systems during periods of maintenance or alternate operations. The emissions from the vacuum system remaining in operation during such periods shall not exceed the sum of the maximum allowable emission rates for EPNs FCC-72 and FCC-73.
- (7) These emission points are typically routed to the Ammonia Scrubber (EPN 46), except when the NH<sub>3</sub> scrubber is not in operation due to maintenance of the scrubber.
- (8) Total emissions of ammonia plus ammonium hydroxide.
- (9) These emission points are typically routed to the Ammonia Scrubber (EPN 46), but may discharge directly to atmosphere when the DBW section of the FCC Catalyst Unit is not operating and no NH<sub>3</sub>-containing solutions are used in alumina preparation section.
- (10) PM<sub>10</sub> emissions will happen from either FCC-61 or FCC-76, but not both.
- (11) Emissions are based on 4,160 hours per year operation.
- (12) Final Product Calciner II may be routed through either EPN FCC-74 or EPN FCC-21.

Date: February 27, 2014