Statement of Basis of the Federal Operating Permit

HUNTSMAN PETROCHEMICAL LLC

Site/Area Name: A3 Unit / R&S Area / Utilities Area
Physical location: 6001 Highway 366
Nearest City: Port Neches
County: Jefferson

Permit Number: O2288
Project Type: Minor Revision

Standard Industrial Classification (SIC) Code: 2869
SIC Name: Industrial Organic Chemicals

This Statement of Basis sets forth the legal and factual basis for the draft changes to the permit conditions resulting from the minor revision project in accordance with 30 TAC §122.201(a)(4). The applicant has submitted an application for a minor permit revision per §§ 122.215-217. This document may include the following information:

A description of the facility/area process description;
A description of the revision project;
A basis for applying permit shields;
A list of the federal regulatory applicability determinations;
A table listing the determination of applicable requirements;
A list of the New Source Review Requirements;
The rationale for periodic monitoring methods selected;
The rationale for compliance assurance methods selected;
A compliance status; and
A list of available unit attribute forms.

Prepared on: February 11, 2015

Operating Permit
Basis of Determination

Description of Revisions
This revision was submitted to incorporate NSR Authorization No. 49247 into Federal Operating Permit (FOP) – O2288.

Permit Area Process Description
Ethane and propane are vaporized and cracked in furnaces. The effluent from the furnaces are cooled, quenched, and compressed. Any acid gas is removed during the second stage of compression by using caustic. The second stage contains a reactor which converts acetylenes and diolefin components into more desirable compounds. The third stage of the compression is routed to a distillation tower to purify the commodities of ethylene and propylene.

FOPs at Site
The "application area" consists of the emission units and that portion of the site included in the application and this permit. Multiple FOPs may be issued to a site in accordance with 30 TAC § 122.201(e). When there is only one area for the site, then the application information and permit will include all units at the site. Additional FOPs that exist at the site, if any, are listed below.

Additional FOPs: O1320, O2286, O2287, O3056

Major Source Pollutants
The table below specifies the pollutants for which the site is a major source:

Major Pollutants	VOC, SO2, NOX, HAPS, CO, GHG.

Reading State of Texas's Federal Operating Permit

The Title V Federal Operating Permit (FOP) lists all state and federal air emission regulations and New Source Review (NSR) authorizations (collectively known as "applicable requirements") that apply at a particular site or permit area (in the event a site has multiple FOPs). **The FOP does not authorize new emissions or new construction activities.** The FOP begins with an introductory page which is common to all Title V permits. This page gives the details of the company, states the authority of the issuing agency, requires the company to operate in accordance with this permit and 30 Texas Administrative Code (TAC) Chapter 122, requires adherence with NSR requirements of 30 TAC Chapter 116, and finally indicates the permit number and the issuance date.

This is followed by the table of contents, which is generally composed of the following elements. Not all permits will have all of the elements.

- General Terms and Conditions
- Special Terms and Conditions

    - Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting
    - Additional Monitoring Requirements
    - New Source Review Authorization Requirements
    - Compliance Requirements
    - Protection of Stratosphere Ozone
    - Permit Location
    - Permit Shield (30 TAC § 122.148)
- Attachments
    - Applicable Requirements Summary
        - Unit Summary
        - Applicable Requirements Summary
    - Additional Monitoring Requirements
    - Permit Shield
    - New Source Review Authorization References
    - Compliance Plan
    - Alternative Requirements
- Appendix A
    - Acronym list

General Terms and Conditions

The General Terms and Conditions are the same and appear in all permits. The first paragraph lists the specific citations for 30 TAC Chapter 122 requirements that apply to all Title V permit holders. The second paragraph describes the requirements for record retention. The third paragraph provides details for voiding the permit, if applicable. The fourth paragraph states that the permit holder shall comply with the requirements of 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. The fifth paragraph provides details on submission of reports required by the permit.

Special Terms and Conditions

Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting. The TCEQ has designated certain applicable requirements as site-wide requirements. A site-wide requirement is a requirement that applies uniformly to all the units or activities at the site. Units with only site-wide requirements are addressed on Form OP-REQ1 and are not required to be listed separately on a OP-UA Form or Form OP-SUM. Form OP-SUM must list all units addressed in the application and provide identifying information, applicable OP-UA Forms, and preconstruction authorizations. The various OP-UA Forms provide the characteristics of each unit from which applicable requirements are established. Some exceptions exist as a few units may have both site-wide requirements and unit specific requirements.

Other conditions. The other entries under special terms and conditions are in general terms referring to compliance with the more detailed data listed in the attachments.

Attachments

Applicable Requirements Summary. The first attachment, the Applicable Requirements Summary, has two tables, addressing unit specific requirements. The first table, the Unit Summary, includes a list of units with applicable requirements, the unit type, the applicable regulation, and the requirement driver. The intent of the requirement driver is to inform the reader that a given unit may have several different operating scenarios and the differences between those operating scenarios

The applicable requirements summary table provides the detailed citations of the rules that apply to the various units. For each unit and operating scenario, there is an added modifier called the "index number," detailed citations specifying monitoring and testing requirements, recordkeeping requirements, and reporting requirements. The data for this table are based on data supplied by the applicant on the OP-SUM and various OP-UA forms.

Additional Monitoring Requirement. The next attachment includes additional monitoring the applicant must perform to ensure compliance with the applicable standard. Compliance assurance monitoring (CAM) is often required to provide a reasonable assurance of compliance with applicable emission limitations/standards for large emission units that use control devices to achieve compliance with applicant requirements. When necessary, periodic monitoring (PM) requirements are specified for certain parameters (i.e. feed rates, flow rates, temperature, fuel type and consumption, etc.) to determine if a term and condition or emission unit is operating within specified limits to control emissions. These additional monitoring approaches may be required for two reasons. First, the applicable rules do not adequately specify monitoring requirements (exception-Maximum Achievable Control Technology Standards (MACTs) generally have sufficient monitoring), and second, monitoring may be required to fill gaps in the monitoring requirements of certain applicable requirements. In situations where the NSR permit is the applicable requirement requiring extra monitoring for a specific emission unit, the preferred solution is to have the monitoring requirements in the NSR permit updated so that all NSR requirements are consolidated in the NSR permit.

Permit Shield. A permit may or may not have a permit shield, depending on whether an applicant has applied for, and justified the granting of, a permit shield. A permit shield is a special condition included in the permit document stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirement(s) or specified applicable state-only requirement(s).

New Source Review Authorization References. All activities which are related to emissions in the state of Texas must have a NSR authorization prior to beginning construction. This section lists all units in the permit and the NSR authorization that allowed the unit to be constructed or modified. Units that do not have unit specific applicable requirements other than the NSR authorization do not need to be listed in this attachment. While NSR permits are not physically a part of the Title V permit, they are legally incorporated into the Title V permit by reference. Those NSR permits whose emissions exceed certain PSD/NA thresholds must also undergo a Federal review of federally regulated pollutants in addition to review for state regulated pollutants.

Compliance Plan. A permit may have a compliance schedule attachment for listing corrective actions plans for any emission unit that is out of compliance with an applicable requirement.

Alternative Requirements. This attachment will list any alternative monitoring plans or alternative means of compliance for applicable requirements that have been approved by the EPA Administrator and/or the TCEQ Executive Director.

Appendix A

Acronym list. This attachment lists the common acronyms used when discussing the FOPs.

Stationary vents subject to 30 TAC Chapter 111, Subchapter A, § 111.111(a)(1)(A) addressed in the Special Terms and Conditions

The site contains stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) and constructed after January 31, 1972 which are limited, over a six-minute average, to 20% opacity as required by 30 TAC § 111.111(a)(1)(A). As a site may have a large number of stationary vents that fall into this category, they are not required to be listed individually in the permit's Applicable Requirement Summary. This is consistent with EPA's White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995, that states that requirements that apply identically to emission units at a site can be treated on a generic basis such as source-wide opacity limits.

Periodic monitoring is specified in Special Term and Condition 3. A. for stationary vents subject to 30 TAC § 111.111(a)(1)(A) to verify compliance with the 30% opacity limit. These vents are not expected to produce visible emissions during normal operation. The TCEQ evaluated the probability of these sources violating the opacity standards and determined that there is a very low potential that an opacity standard would be exceeded. It was determined that continuous monitoring for these sources is not warranted as there would be very limited environmental benefit in continuously monitoring sources that have a low potential to produce visible emissions. Therefore, the TCEQ set the visible observation monitoring frequency for these sources to once per calendar quarter.

The TCEQ has exempted vents that are not capable of producing visible emissions from periodic monitoring requirements. These vents include sources of colorless VOCs, non-fuming liquids, and other materials that cannot produce emissions that obstruct the transmission of light. Passive ventilation vents, such as plumbing vents, are also included in this category. Since this category of vents are not capable of producing opacity due to the physical or chemical characteristics of the emission source, periodic monitoring is not required as it would not yield any additional data to assure compliance with the 20% opacity standard of 30 TAC § 111.111(a)(1)(A).

In the event that visible emissions are detected, either through the quarterly observation or other credible evidence, such as observations from company personnel, the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 TAC § 111.111(a)(1)(A). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours. This will address possible emissions that may arise when switching fuel types.

Stationary vents subject to 30 TAC Chapter 111, Subchapter A, § 111.111(a)(1)(B) addressed in the Special Terms and Conditions

The site contains stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) and constructed after January 31, 1972 which are limited, over a six-minute average, to 20% opacity as required by 30 TAC § 111.111(a)(1)(B). As a site may have a large number of stationary vents that fall into this category, they are not required to be listed individually in the permit's Applicable Requirement Summary. This is consistent with EPA's White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995, that states that requirements that apply identically to emission units at a site can be treated on a generic basis such as source-wide opacity limits.

Periodic monitoring is specified in Special Term and Condition 3. B. for stationary vents subject to 30 TAC § 111.111(a)(1)(B) to verify compliance with the 20% opacity limit. These vents are not expected to produce visible emissions during normal operation. The TCEQ evaluated the probability of these sources violating the opacity standards and determined that there is a very low potential that an opacity standard would be exceeded. It was determined that continuous monitoring for these sources is not warranted as there would be very limited environmental benefit in continuously monitoring sources that have a low potential to produce visible emissions. Therefore, the TCEQ set the visible observation monitoring frequency for these sources to once per calendar quarter.

The TCEQ has exempted vents that are not capable of producing visible emissions from periodic monitoring requirements. These vents include sources of colorless VOCs, non-fuming liquids, and other materials that cannot produce emissions that obstruct the transmission of light. Passive ventilation vents, such as plumbing vents, are also included in this category. Since this category of vents are not capable of producing opacity due to the physical or chemical characteristics of the emission source, periodic monitoring is not required as it would not yield any additional data to assure compliance with the 20% opacity standard of 30 TAC § 111.111(a)(1)(B).

In the event that visible emissions are detected, either through the quarterly observation or other credible evidence, such as observations from company personnel, the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 TAC § 111.111(a)(1)(B). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours. This will address possible emissions that may arise when switching fuel types.

Federal Regulatory Applicability Determinations

The following chart summarizes the applicability of the principal air pollution regulatory programs to the permit area:

Regulatory Program	Applicability (Yes/No)
Prevention of Significant Deterioration (PSD)	Yes
Nonattainment New Source Review (NNSR)	No
Minor NSR	Yes
40 CFR Part 60 - New Source Performance Standards	Yes
40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)	Yes
40 CFR Part 63 - NESHAPs for Source Categories	Yes
Title IV (Acid Rain) of the Clean Air Act (CAA)	No
Title V (Federal Operating Permits) of the CAA	Yes
Title VI (Stratospheric Ozone Protection) of the CAA	Yes
CAIR (Clean Air Interstate Rule)	No

Basis for Applying Permit Shields

An operating permit applicant has the opportunity to specifically request a permit shield to document that specific applicable requirements do not apply to emission units in the permit. A permit shield is a special condition stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements. A permit shield has been requested in the application for specific emission units. For the permit shield requests that have been approved, the basis of determination for regulations that the owner/operator need not comply with are located in the "Permit Shield" attachment of the permit.

Insignificant Activities

In general, units not meeting the criteria for inclusion on either Form OP-SUM or Form OP-REQ1 are not required to be addressed in the operating permit application. Examples of these types of units include, but are not limited to, the following:

1. Office activities such as photocopying, blueprint copying, and photographic processes.
2. Sanitary sewage collection and treatment facilities other than those used to incinerate wastewater treatment plant sludge. Stacks or vents for sanitary sewer plumbing traps are also included.
3. Food preparation facilities including, but not limited to, restaurants and cafeterias used for preparing food or beverages primarily for consumption on the premises.
4. Outdoor barbecue pits, campfires, and fireplaces.

5. Laundry dryers, extractors, and tumblers processing bedding, clothing, or other fabric items generated primarily at the premises. This does not include emissions from dry cleaning systems using perchloroethylene or petroleum solvents.
6. Facilities storing only dry, sweet natural gas, including natural gas pressure regulator vents.
7. Any air separation or other industrial gas production, storage, or packaging facility. Industrial gases, for purposes of this list, include only oxygen, nitrogen, helium, neon, argon, krypton, and xenon.
8. Storage and handling of sealed portable containers, cylinders, or sealed drums.
9. Vehicle exhaust from maintenance or repair shops.
10. Storage and use of non-VOC products or equipment for maintaining motor vehicles operated at the site (including but not limited to, antifreeze and fuel additives).
11. Air contaminant detectors and recorders, combustion controllers and shut-off devices, product analyzers, laboratory analyzers, continuous emissions monitors, other analyzers and monitors, and emissions associated with sampling activities. Exception to this category includes sampling activities that are deemed fugitive emissions and under a regulatory leak detection and repair program.
12. Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including but not limited to, assorted vacuum producing devices and laboratory fume hoods.
13. Steam vents, steam leaks, and steam safety relief valves, provided the steam (or boiler feed-water) has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
14. Storage of water that has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
15. Well cellars.
16. Fire or emergency response equipment and training, including but not limited to, use of fire control equipment including equipment testing and training, and open burning of materials or fuels associated with firefighting training.
17. Crucible or pot furnaces with a brim full capacity of less than 450 cubic inches of any molten metal.
18. Equipment used exclusively for the melting or application of wax.
19. All closed tumblers used for the cleaning or de-burring of metal products without abrasive blasting, and all open tumblers with a batch capacity of 1,000 lbs. or less.
20. Shell core and shell mold manufacturing machines.
21. Sand or investment molds with a capacity of 100 lbs. or less used for the casting of metals;
22. Equipment used for inspection of metal products.
23. Equipment used exclusively for rolling, forging, pressing, drawing, spinning, or extruding either hot or cold metals by some mechanical means.
24. Instrument systems utilizing air, natural gas, nitrogen, oxygen, carbon dioxide, helium, neon, argon, krypton, and xenon.
25. Battery recharging areas.
26. Brazing, soldering, or welding equipment.

Determination of Applicable Requirements

The tables below include the applicability determinations for the emission units, the index number(s) where applicable, and all relevant unit attribute information used to form the basis of the applicability determination. The unit attribute information is a description of the physical properties of an emission unit which is used to

determine the requirements to which the permit holder must comply. For more information about the descriptions of the unit attributes specific Unit Attribute Forms may be viewed at www.tceq.state.tx.us/permitting/air/nav/air_all_ua_forms.html.

A list of unit attribute forms is included at the end of this document. Some examples of unit attributes include construction date; product stored in a tank; boiler fuel type; etc.. Generally, multiple attributes are needed to determine the requirements for a given emission unit and index number. The table below lists these attributes in the column entitled "Basis of Determination." Attributes that demonstrate that an applicable requirement applies will be the factual basis for the specific citations in an applicable requirement that apply to a unit for that index number. The TCEQ Air Permits Division has developed flowcharts for determining applicability of state and federal regulations based on the unit attribute information in a Decision Support System (DSS). These flowcharts can be accessed via the internet at www.tceq.state.tx.us/permitting/air/nav/air_supportsys.html. The Air Permits Division staff may also be contacted for assistance at (512) 239-1250.

The attributes for each unit and corresponding index number provide the basis for determining the specific legal citations in an applicable requirement that apply, including emission limitations or standards, monitoring, recordkeeping, and reporting. The rules were found to apply or not apply by using the unit attributes as answers to decision questions found in the flowcharts of the DSS. Some additional attributes indicate which legal citations of a rule apply. The legal citations that apply to each emission unit may be found in the Applicable Requirements Summary table of the draft permit. There may be some entries or rows of units and rules not found in the permit, or if the permit contains a permit shield, repeated in the permit shield area. These are sets of attributes that describe negative applicability, or; in other words, the reason why a potentially applicable requirement does not apply.

If applicability determinations have been made which differ from the available flowcharts, an explanation of the decisions involved in the applicability determination is specified in the column "Changes and Exceptions to RRT." If there were no exceptions to the DSS, then this column has been removed.

The draft permit includes all emission limitations or standards, monitoring, recordkeeping and reporting required by each applicable requirement. If an applicable requirement does not require monitoring, recordkeeping, or reporting, the word "None" will appear in the Applicable Requirements Summary table. If additional periodic monitoring is required for an applicable requirement, it will be explained in detail in the portion of this document entitled "Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected."

When attributes demonstrate that a unit is not subject to an applicable requirement, the applicant may request a permit shield for those items. The portion of this document entitled "Basis for Applying Permit Shields" specifies which units, if any, have a permit shield.

Operational Flexibility

When an emission unit has multiple operating scenarios, it will have a different index number associated with each operating condition. This means that units are permitted to operate under multiple operating conditions. The applicable requirements for each operating condition are determined by a unique set of unit attributes. For example, a tank may store two different products at different points in time. The tank may, therefore, need to

comply with two distinct sets of requirements, depending on the product that is stored. Both sets of requirements are included in the permit, so that the permit holder may store either product in the tank.

Determination of Applicable Requirements

Unit ID	Regulation	Index Number	Basis of Determination*
GRPUTIC1	30 TAC Chapter 117, Subchapter B	R7ICI-201	Horsepower Rating = HP is greater than or equal to 300 RACT Date Placed in Service = On or before November 15, 1992 Type of Service = Used in research and testing, performance verification testing, solely to power other engines or turbines during startup, in response to and during any officially declared disaster or state of emergency or directly and exclusively in agriculture
P-Q-108	30 TAC Chapter 117, Subchapter B	R7ICI-201	Horsepower Rating = HP is greater than or equal to 300 RACT Date Placed in Service = On or before November 15, 1992 Type of Service = Used in research and testing, performance verification testing, solely to power other engines or turbines during startup, in response to and during any officially declared disaster or state of emergency or directly and exclusively in agriculture
A3FA3215	30 TAC Chapter 115, Storage of VOCs	R5112-00a	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank does not require emission controls 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons
A3TA329	30 TAC Chapter 115, Storage of VOCs	R5112-020	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 25,000 gallons but less than or equal to 40,000 gallons
A3TA329	40 CFR Part 60, Subpart Kb	60Kb-4	40 CFR 60 (NSPS) SUBPART KB PRODUCT STORED = Volatile organic liquid 40 CFR 60 (NSPS) SUBPART KB STORAGE CAPACITY = Capacity is greater than or equal to 19,800 gallons (75,000 liters) but less than 39,900 gallons (151,000 liters) 40 CFR 60 (NSPS) SUBPART KB MAXIMUM TRUE VAPOR PRESSURE (TVP) = True vapor pressure is less than 2.2 psia
A3TA339	30 TAC Chapter 115, Storage of VOCs	R5112-005	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a submerged fill pipe 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons
A3TA346	30 TAC Chapter 115, Storage of VOCs	R5112-027	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a submerged fill pipe and vapor recovery system 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 25,000 gallons but less than or equal to 40,000 gallons

Unit ID	Regulation	Index Number	Basis of Determination*
FDU-1	30 TAC Chapter 115, Storage of VOCs	R5112-00a	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank does not require emission controls 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons
GRPUTTK1	30 TAC Chapter 115, Storage of VOCs	R5112-00a	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank does not require emission controls 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons
RSET010	30 TAC Chapter 115, Storage of VOCs	R5112-062	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a submerged fill pipe and vapor recovery system 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Other vapor recovery unit
RSET010	40 CFR Part 63, Subpart G	63GT-036	MACT SUBPART F/G APPLICABILITY = The unit is a Group 1 vessel (as defined in Table 5 for existing sources or Table 6 for new sources of 40 CFR 63, Subpart G). CLOSED VENT SYSTEM = Closed vent system is routing emissions to a process or fuel gas system, or is subject to § 63.148 of Subpart G NESHAP SUBPART Y APPLICABILITY = The unit is subject to 40 CFR Part 61, Subpart Y. HARD PIPING = The closed vent system is constructed of ductwork. BYPASS LINES = Closed vent system has no by-pass lines. MAXIMUM TVP = Maximum true vapor pressure of the total organic HAP in the liquid is greater than or equal to 11.11 psi (76.6 kPa) CONTROL DEVICE TYPE = Control device other than a flare, thermal incinerator, boiler, process heater, enclosed combustion device meeting residence time and temperature requirements, carbon adsorber, condenser or hazardous waste incinerator. EMISSION CONTROL TYPE = Closed vent system (CVS) and control device (fixed roof) CONTROL DEVICE DESIGN = The control device was not installed on or before December 31, 1992 or was not designed to reduce inlet emissions of total organic hazardous air pollutants by greater than or equal to 90% and less than 95%. DESIGN EVALUATION SUBMITTED = Results of a performance test was submitted to demonstrate compliance with 40 CFR § 63.119(e).
RSET0126	30 TAC Chapter 115, Storage of VOCs	R5112-050	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons

Unit ID	Regulation	Index Number	Basis of Determination*
RSET0126	30 TAC Chapter 115, Storage of VOCs	R5112-052	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Flare
RSET0126	30 TAC Chapter 115, Storage of VOCs	R5112-055	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Other vapor recovery unit
RSET0126	40 CFR Part 61, Subpart FF	61FF-T02a	BY-PASS LINE = The closed vent system contains any by-pass line that could divert the vent stream away from the control device. TANK CONTROL REQUIREMENTS = The tank has a fixed roof and closed vent system routing vapors to either a fuel gas system or control device. WASTE TREATMENT TANK = The tank manages, treats or stores a waste stream subject to 40 CFR Part 61, Subpart FF. ALTERNATIVE STANDARDS FOR TANKS = The tank is not complying with the alternative standards in 40 CFR § 61.351. BY-PASS LINE VALVE = A car-seal or lock and key configuration are used to secure the by-pass line valve in the closed position. FUEL GAS SYSTEM = Gaseous emissions from the tank or enclosure are not routed to a fuel gas system. CONTROL DEVICE TYPE/OPERATIONS = Flare COVER & CLOSED VENT = The cover and closed vent system are not operated such that the tank is maintained at a pressure less than atmospheric pressure and meets the conditions of 40 CFR § 61.343(a)(1)(i)(C)(1) - (3). ALTERNATIVE MEANS OF COMPLIANCE = Not using an alternate means of compliance to meet the requirements of 40 CFR § 61.343 for tanks.
RSET0126	40 CFR Part 61, Subpart FF	61FF-T03a	BY-PASS LINE = The closed vent system does not contain any by-pass line that could divert the vent stream away from the control device. TANK CONTROL REQUIREMENTS = The tank has a fixed roof and closed vent system routing vapors to either a fuel gas system or control device. WASTE TREATMENT TANK = The tank manages, treats or stores a waste stream subject to 40 CFR Part 61, Subpart FF. ALTERNATIVE STANDARDS FOR TANKS = The tank is not complying with the alternative standards in 40 CFR § 61.351. FUEL GAS SYSTEM = Gaseous emissions from the tank or enclosure are not routed to a fuel gas system. CONTROL DEVICE TYPE/OPERATIONS = Carbon adsorption system that does not regenerate the carbon bed directly in the control device COVER & CLOSED VENT = The cover and closed vent system are not operated such that the tank is maintained at a pressure less than atmospheric pressure and meets the conditions of 40 CFR § 61.343(a)(1)(i)(C)(1) - (3). ENGINEERING CALCULATIONS = Engineering calculations show that the control device is proven to achieve its emission limitation. ALTERNATE MONITORING PARAMETERS = Alternate monitoring parameters not requested ALTERNATIVE MEANS OF COMPLIANCE = Not using an alternate means of compliance to meet the requirements of 40 CFR § 61.343 for tanks. CARBON REPLACEMENT INTERVAL = The carbon in the carbon adsorption system is replaced when monitoring indicates breakthrough.

Unit ID	Regulation	Index Number	Basis of Determination*
RSET0126	40 CFR Part 63, Subpart YY	63YY-T	SOURCE TYPE = Tank is located at an ethylene production facility and meets the size and vapor pressure requirements of Table 7 to be subject to § 63.1103.
RSET0127	30 TAC Chapter 115, Storage of VOCs	R5112-050	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons
RSET0127	30 TAC Chapter 115, Storage of VOCs	R5112-052	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Flare
RSET0127	40 CFR Part 61, Subpart FF	61FF-T02a	BY-PASS LINE = The closed vent system contains any by-pass line that could divert the vent stream away from the control device. TANK CONTROL REQUIREMENTS = The tank has a fixed roof and closed vent system routing vapors to either a fuel gas system or control device. WASTE TREATMENT TANK = The tank manages, treats or stores a waste stream subject to 40 CFR Part 61, Subpart FF. ALTERNATIVE STANDARDS FOR TANKS = The tank is not complying with the alternative standards in 40 CFR § 61.351. BY-PASS LINE VALVE = A car-seal or lock and key configuration are used to secure the by-pass line valve in the closed position. FUEL GAS SYSTEM = Gaseous emissions from the tank or enclosure are not routed to a fuel gas system. CONTROL DEVICE TYPE/OPERATIONS = Flare COVER & CLOSED VENT = The cover and closed vent system are not operated such that the tank is maintained at a pressure less than atmospheric pressure and meets the conditions of 40 CFR § 61.343(a)(1)(i)(C)(1) - (3). ALTERNATIVE MEANS OF COMPLIANCE = Not using an alternate means of compliance to meet the requirements of 40 CFR § 61.343 for tanks.
RSET0127	40 CFR Part 63, Subpart YY	63YY-T	SOURCE TYPE = Tank is located at an ethylene production facility and meets the size and vapor pressure requirements of Table 7 to be subject to § 63.1103.
RSET0180	30 TAC Chapter 115, Storage of VOCs	R5112-062	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a submerged fill pipe and vapor recovery system 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Other vapor recovery unit
RSET0180	40 CFR Part 63, Subpart G	63GT-036	MACT SUBPART F/G APPLICABILITY = The unit is a Group 1 vessel (as defined in Table 5 for existing sources or Table 6 for new sources of 40 CFR 63, Subpart G). CLOSED VENT SYSTEM = Closed vent system is routing emissions to a process or fuel gas system, or is subject to § 63.148 of Subpart G NESHAP SUBPART Y APPLICABILITY = The unit is subject to 40 CFR Part 61, Subpart Y.

Unit ID	Regulation	Index Number	Basis of Determination*
			HARD PIPING = The closed vent system is constructed of ductwork. BYPASS LINES = Closed vent system has no by-pass lines. MAXIMUM TVP = Maximum true vapor pressure of the total organic HAP in the liquid is greater than or equal to 11.11 psi (76.6 kPa) CONTROL DEVICE TYPE = Control device other than a flare, thermal incinerator, boiler, process heater, enclosed combustion device meeting residence time and temperature requirements, carbon adsorber, condenser or hazardous waste incinerator. EMISSION CONTROL TYPE = Closed vent system (CVS) and control device (fixed roof) CONTROL DEVICE DESIGN = The control device was not installed on or before December 31, 1992 or was not designed to reduce inlet emissions of total organic hazardous air pollutants by greater than or equal to 90% and less than 95%. DESIGN EVALUATION SUBMITTED = Results of a performance test was submitted to demonstrate compliance with 40 CFR § 63.119(e).
RSET0204	30 TAC Chapter 115, Storage of VOCs	R5112-062	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a submerged fill pipe and vapor recovery system 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Other vapor recovery unit
RSET0204	40 CFR Part 63, Subpart G	63GT-036	MACT SUBPART F/G APPLICABILITY = The unit is a Group 1 vessel (as defined in Table 5 for existing sources or Table 6 for new sources of 40 CFR 63, Subpart G). CLOSED VENT SYSTEM = Closed vent system is routing emissions to a process or fuel gas system, or is subject to § 63.148 of Subpart G NESHAP SUBPART Y APPLICABILITY = The unit is subject to 40 CFR Part 61, Subpart Y. HARD PIPING = The closed vent system is constructed of ductwork. BYPASS LINES = Closed vent system has no by-pass lines. MAXIMUM TVP = Maximum true vapor pressure of the total organic HAP in the liquid is greater than or equal to 11.11 psi (76.6 kPa) CONTROL DEVICE TYPE = Control device other than a flare, thermal incinerator, boiler, process heater, enclosed combustion device meeting residence time and temperature requirements, carbon adsorber, condenser or hazardous waste incinerator. EMISSION CONTROL TYPE = Closed vent system (CVS) and control device (fixed roof) CONTROL DEVICE DESIGN = The control device was not installed on or before December 31, 1992 or was not designed to reduce inlet emissions of total organic hazardous air pollutants by greater than or equal to 90% and less than 95%. DESIGN EVALUATION SUBMITTED = Results of a performance test was submitted to demonstrate compliance with 40 CFR § 63.119(e).
RSET030	30 TAC Chapter 115, Storage of VOCs	R5112-062	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a submerged fill pipe and vapor recovery system 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Other vapor recovery unit
RSET030	40 CFR Part 63, Subpart G	63GT-036	MACT SUBPART F/G APPLICABILITY = The unit is a Group 1 vessel (as defined in Table 5 for existing sources or Table 6 for new sources of 40 CFR 63, Subpart G). CLOSED VENT SYSTEM = Closed vent system is routing emissions to a process or fuel gas system, or is subject to § 63.148 of Subpart G

Unit ID	Regulation	Index Number	Basis of Determination*
			NESHAP SUBPART Y APPLICABILITY = The unit is subject to 40 CFR Part 61, Subpart Y. HARD PIPING = The closed vent system is constructed of ductwork. BYPASS LINES = Closed vent system has no by-pass lines. MAXIMUM TVP = Maximum true vapor pressure of the total organic HAP in the liquid is greater than or equal to 11.11 psi (76.6 kPa) CONTROL DEVICE TYPE = Control device other than a flare, thermal incinerator, boiler, process heater, enclosed combustion device meeting residence time and temperature requirements, carbon adsorber, condenser or hazardous waste incinerator. EMISSION CONTROL TYPE = Closed vent system (CVS) and control device (fixed roof) CONTROL DEVICE DESIGN = The control device was not installed on or before December 31, 1992 or was not designed to reduce inlet emissions of total organic hazardous air pollutants by greater than or equal to 90% and less than 95%. DESIGN EVALUATION SUBMITTED = Results of a performance test was submitted to demonstrate compliance with 40 CFR § 63.119(e).
RSET039	30 TAC Chapter 115, Storage of VOCs	R5112-067	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using an internal floating roof (IFR) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons
RSET039	40 CFR Part 60, Subpart Kb	60Kb-22	40 CFR 60 (NSPS) SUBPART KB PRODUCT STORED = Volatile organic liquid 40 CFR 60 (NSPS) SUBPART KB STORAGE CAPACITY = Capacity is greater than or equal to 39,900 gallons (151,000 liters) 40 CFR 60 (NSPS) SUBPART KB MAXIMUM TRUE VAPOR PRESSURE (TVP) = True vapor pressure is less than 0.5 psia
RSET040	30 TAC Chapter 115, Storage of VOCs	R5112-067	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using an internal floating roof (IFR) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons
RSET040	40 CFR Part 60, Subpart Kb	60Kb-22	40 CFR 60 (NSPS) SUBPART KB PRODUCT STORED = Volatile organic liquid 40 CFR 60 (NSPS) SUBPART KB STORAGE CAPACITY = Capacity is greater than or equal to 39,900 gallons (151,000 liters) 40 CFR 60 (NSPS) SUBPART KB MAXIMUM TRUE VAPOR PRESSURE (TVP) = True vapor pressure is less than 0.5 psia
RSET087	30 TAC Chapter 115, Storage of VOCs	R5112-052	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Flare
RSET087	30 TAC Chapter 115, Storage of VOCs	R5112-069	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using an internal floating roof (IFR)

Unit ID	Regulation	Index Number	Basis of Determination*
			30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons
RSET087	40 CFR Part 60, Subpart Kb	60Kb-33	40 CFR 60 (NSPS) SUBPART KB PRODUCT STORED = Volatile organic liquid 40 CFR 60 (NSPS) SUBPART KB STORAGE CAPACITY = Capacity is greater than or equal to 39,900 gallons (151,000 liters) 40 CFR 60 (NSPS) SUBPART KB MAXIMUM TRUE VAPOR PRESSURE (TVP) = True vapor pressure is greater than or equal to 0.75 psia but less than 11.1 psia 40 CFR 60 (NSPS) SUBPART KB STORAGE VESSEL DESCRIPTION = Fixed roof with an internal floating roof using a mechanical shoe seal
RSET087	40 CFR Part 60, Subpart Kb	60Kb-36	40 CFR 60 (NSPS) SUBPART KB PRODUCT STORED = Volatile organic liquid 40 CFR 60 (NSPS) SUBPART KB STORAGE CAPACITY = Capacity is greater than or equal to 39,900 gallons (151,000 liters) 40 CFR 60 (NSPS) SUBPART KB MAXIMUM TRUE VAPOR PRESSURE (TVP) = True vapor pressure is greater than or equal to 0.75 psia but less than 11.1 psia 40 CFR 60 (NSPS) SUBPART KB STORAGE VESSEL DESCRIPTION = Closed vent system (CVS) with a flare used as the control device (fixed roof)
RSET087	40 CFR Part 61, Subpart FF	61FF-T02a	BY-PASS LINE = The closed vent system contains any by-pass line that could divert the vent stream away from the control device. TANK CONTROL REQUIREMENTS = The tank has a fixed roof and closed vent system routing vapors to either a fuel gas system or control device. WASTE TREATMENT TANK = The tank manages, treats or stores a waste stream subject to 40 CFR Part 61, Subpart FF. ALTERNATIVE STANDARDS FOR TANKS = The tank is not complying with the alternative standards in 40 CFR § 61.351. BY-PASS LINE VALVE = A car-seal or lock and key configuration are used to secure the by-pass line valve in the closed position. FUEL GAS SYSTEM = Gaseous emissions from the tank or enclosure are not routed to a fuel gas system. CONTROL DEVICE TYPE/OPERATIONS = Flare COVER & CLOSED VENT = The cover and closed vent system are not operated such that the tank is maintained at a pressure less than atmospheric pressure and meets the conditions of 40 CFR § 61.343(a)(1)(i)(C)(1) - (3). ALTERNATIVE MEANS OF COMPLIANCE = Not using an alternate means of compliance to meet the requirements of 40 CFR § 61.343 for tanks.
RSET087	40 CFR Part 61, Subpart FF	61FF-T04a	WASTE TREATMENT TANK = The tank manages, treats or stores a waste stream subject to 40 CFR Part 61, Subpart FF. ALTERNATIVE STANDARDS FOR TANKS = The tank is complying with the alternative standards in 40 CFR § 61.351. KB TANK TYPE = Using a fixed roof and internal floating roof, that meets the requirements of 40 CFR § 60.112b(a)(1) SEAL TYPE = Mechanical shoe seal
RSET087	40 CFR Part 63, Subpart YY	63YY-T	SOURCE TYPE = Tank is located at an ethylene production facility and meets the size and vapor pressure requirements of Table 7 to be subject to § 63.1103.
RSET088	30 TAC Chapter 115, Storage of VOCs	R5112-052	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a vapor recovery system (VRS) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons 30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = Flare
RSET088	30 TAC Chapter 115, Storage of	R5112-069	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with

Unit ID	Regulation	Index Number	Basis of Determination*
	VOCs		applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using an internal floating roof (IFR) 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is greater than or equal to 1.5 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 40,000 gallons
RSET088	40 CFR Part 60, Subpart Kb	60Kb-33	40 CFR 60 (NSPS) SUBPART KB PRODUCT STORED = Volatile organic liquid 40 CFR 60 (NSPS) SUBPART KB STORAGE CAPACITY = Capacity is greater than or equal to 39,900 gallons (151,000 liters) 40 CFR 60 (NSPS) SUBPART KB MAXIMUM TRUE VAPOR PRESSURE (TVP) = True vapor pressure is greater than or equal to 0.75 psia but less than 11.1 psia 40 CFR 60 (NSPS) SUBPART KB STORAGE VESSEL DESCRIPTION = Fixed roof with an internal floating roof using a mechanical shoe seal
RSET088	40 CFR Part 60, Subpart Kb	60Kb-36	40 CFR 60 (NSPS) SUBPART KB PRODUCT STORED = Volatile organic liquid 40 CFR 60 (NSPS) SUBPART KB STORAGE CAPACITY = Capacity is greater than or equal to 39,900 gallons (151,000 liters) 40 CFR 60 (NSPS) SUBPART KB MAXIMUM TRUE VAPOR PRESSURE (TVP) = True vapor pressure is greater than or equal to 0.75 psia but less than 11.1 psia 40 CFR 60 (NSPS) SUBPART KB STORAGE VESSEL DESCRIPTION = Closed vent system (CVS) with a flare used as the control device (fixed roof)
RSET088	40 CFR Part 61, Subpart FF	61FF-T02a	BY-PASS LINE = The closed vent system contains any by-pass line that could divert the vent stream away from the control device. TANK CONTROL REQUIREMENTS = The tank has a fixed roof and closed vent system routing vapors to either a fuel gas system or control device. WASTE TREATMENT TANK = The tank manages, treats or stores a waste stream subject to 40 CFR Part 61, Subpart FF. ALTERNATIVE STANDARDS FOR TANKS = The tank is not complying with the alternative standards in 40 CFR § 61.351. BY-PASS LINE VALVE = A car-seal or lock and key configuration are used to secure the by-pass line valve in the closed position. FUEL GAS SYSTEM = Gaseous emissions from the tank or enclosure are not routed to a fuel gas system. CONTROL DEVICE TYPE/OPERATIONS = Flare COVER & CLOSED VENT = The cover and closed vent system are not operated such that the tank is maintained at a pressure less than atmospheric pressure and meets the conditions of 40 CFR § 61.343(a)(1)(i)(C)(1) - (3). ALTERNATIVE MEANS OF COMPLIANCE = Not using an alternate means of compliance to meet the requirements of 40 CFR § 61.343 for tanks.
RSET088	40 CFR Part 61, Subpart FF	61FF-T04a	WASTE TREATMENT TANK = The tank manages, treats or stores a waste stream subject to 40 CFR Part 61, Subpart FF. ALTERNATIVE STANDARDS FOR TANKS = The tank is complying with the alternative standards in 40 CFR § 61.351. KB TANK TYPE = Using a fixed roof and internal floating roof, that meets the requirements of 40 CFR § 60.112b(a)(1) SEAL TYPE = Mechanical shoe seal
RSET088	40 CFR Part 63, Subpart YY	63YY-T	SOURCE TYPE = Tank is located at an ethylene production facility and meets the size and vapor pressure requirements of Table 7 to be subject to § 63.1103.
RSETQ142	30 TAC Chapter 115, Storage of VOCs	R5112-003	ALTERNATE CONTROL REQUIREMENT [REG V] = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. 30 TAC CHAPTER (REG V) 115 TANK DESCRIPTION = Tank using a submerged fill pipe 30 TAC CHAPTER 115 (REG V) PRODUCT STORED = VOC other than crude oil or condensate TRUE VAPOR PRESSURE (TVP) AT STORAGE CONDITIONS [REG V] = True vapor pressure is less than 1.0 psia 30 TAC CHAPTER 115 (REG V) STORAGE CAPACITY = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons

Unit ID	Regulation	Index Number	Basis of Determination*
RSELRTRKW	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-00c	30 TAC CHAPTER 115 (REG V) CONTROL DEVICE TYPE = No control device. 30 TAC CHAPTER 115 (REG V) FACILITY TYPE = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. ALTERNATE CONTROL REQUIREMENT (ACR) [REG V] = No alternate control requirements are being utilized. VAPOR TIGHT = Not all liquid and vapor lines are equipped with fittings which make vapor-tight connections that close automatically when disconnected. PRODUCT TRANSFERRED = Volatile organic compounds other than liquefied petroleum gas and gasoline. TRANSFER TYPE = Only loading. TRUE VAPOR PRESSURE [REG V] = True vapor pressure greater than or equal to 0.5 psia. DAILY THROUGHPUT [REG V] = Loading greater than or equal to 20,000 gallons per day. CONTROL OPTIONS = Vapor balance system.
RSELRTRKW	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-018	30 TAC CHAPTER 115 (REG V) FACILITY TYPE = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. ALTERNATE CONTROL REQUIREMENT (ACR) [REG V] = No alternate control requirements are being utilized. PRODUCT TRANSFERRED = Volatile organic compounds other than liquefied petroleum gas and gasoline. TRANSFER TYPE = Only loading. TRUE VAPOR PRESSURE [REG V] = True vapor pressure less than 0.5 psia.
RSELRTRKW	40 CFR Part 63, Subpart G	63GL-0g2a	TRANSFER RACK TYPE = Group 2 transfer rack (as defined in 40 CFR § 63.111). SUBJECT TO SUBPART BB = The transfer rack is not subject to 40 CFR Part 61, Subpart BB.
RSELRTRKW	40 CFR Part 63, Subpart YY	63YY-L	SOURCE TYPE = Ethylene production. TRUE VAPOR PRESSURE = The true vapor pressure ofthe loaded material is at least 3.4 kPa (0.5 psi). AVERAGE VOLUME TRANSFERRED = Volume transferred is at least 76 m`3` per day (20,077 gallons per day), averaged over any 30 consecutive days.
RSELRVNTTW	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-018	30 TAC CHAPTER 115 (REG V) FACILITY TYPE = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. ALTERNATE CONTROL REQUIREMENT (ACR) [REG V] = No alternate control requirements are being utilized. PRODUCT TRANSFERRED = Volatile organic compounds other than liquefied petroleum gas and gasoline. TRANSFER TYPE = Only loading. TRUE VAPOR PRESSURE [REG V] = True vapor pressure less than 0.5 psia.
A3HA32	30 TAC Chapter 117, Subchapter B	R7ICI-502	UNIT TYPE [REG VII] = Process heater MAXIMUM RATED CAPACITY [REG VII] = MRC is less than 40 MMBtu/hr.
A3HA33	30 TAC Chapter 117, Subchapter B	R7ICI-502	UNIT TYPE [REG VII] = Process heater MAXIMUM RATED CAPACITY [REG VII] = MRC is less than 40 MMBtu/hr.
A3HA34	30 TAC Chapter 117, Subchapter B	R7ICI-502	UNIT TYPE [REG VII] = Process heater MAXIMUM RATED CAPACITY [REG VII] = MRC is less than 40 MMBtu/hr.
GRPA3PH1	30 TAC Chapter 117, Subchapter B	R7ICI-503	DILUENT CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent. FUEL FLOW MONITORING = Fuel flow is monitored with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a). UNIT TYPE [REG VII] = Process heater

Unit ID	Regulation	Index Number	Basis of Determination*
			30 TAC CHAPTER 116 (NSR) PERMIT LIMIT = NO_x_ emission limit in 30 TAC § 117.105 is not greater than the NO_x_ emission limit in a 30 TAC Chapter 116 permit CO EMISSION LIMITATION = Title 30 TAC § 117.110(c)(1) MAXIMUM RATED CAPACITY [REG VII] = Maximum rated capacity is at least 40 MMBtu/hr, but less than 100 MMBtu/hr. CO MONITORING SYSTEM = Emissions are monitored using methods other than CEMS or PEMS. NOX EMISSION LIMIT BASIS [REG VII] = Emission limit in lb/hr (or ppm by volume at 15% oxygen, dry basis) on a block one-hour average RACT DATE PLACED IN SERVICE = On or before November 15, 1992 NOX REDUCTION = No NO_x_ control method COMMON STACK COMBINED = Unit is not vented through a common stack, or the total rated heat input from combined units is at less than 250 MMBtu/hr or the annual combined heat input is less than 2.2(10`11`) Btu/yr. FUEL TYPE #1 [REG VII] = Gaseous fuel other than natural gas, landfill gas, or renewable non-fossil fuel gases. NOX MONITORING SYSTEM = Maximum emission rate testing [in accordance with 30 TAC § 117.8000] ANNUAL HEAT INPUT [REG VII] = Annual heat input is greater than 2.8(10`11`) Btu/yr, based on a rolling 12-month average. NOX EMISSION LIMITATION = Title 30 TAC § 117.110(a)(2)
A3HA35	30 TAC Chapter 117, Subchapter B	R7ICI-606	NOX EMISSION LIMITATION = Title 30 TAC § 117.110(a)(1). UNIT TYPE = Other industrial, commercial, or institutional boiler. MAXIMUM RATED CAPACITY = MRC is greater than or equal to 100 MMBtu/hr but less than 200 MMBtu/hr. NOX MONITORING SYSTEM = Maximum emission rate testing. FUEL FLOW MONITORING = Fuel flow is monitored with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a). RACT DATE PLACED IN SERVICE = On or before November 15, 1992. CO EMISSION LIMITATION = Title 30 TAC § 117.110(c)(1). CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1). INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES FUEL TYPE #1 [REG VII] = Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases. NOX EMISSION LIMIT AVERAGE = Emission limit in pounds/hour on a block one-hour average. NOX REDUCTIONS = No NO_x_ reduction. ANNUAL HEAT INPUT/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Annual heat input is greater than 2.2(10`11`) Btu/yr, based on rolling 12-month average. COMMON STACK COMBINED = The unit is not vented through a common stack; or the total rated heat input from combined units is less than 250 MMBtu/hr; and the annual combined heat input is 2.2(10`11`) Btu/yr or less.
UEHK10	30 TAC Chapter 117, Subchapter B	R7ICI-607	NOX EMISSION LIMITATION = Title 30 TAC § 117.110(a)(1). UNIT TYPE = Other industrial, commercial, or institutional boiler. MAXIMUM RATED CAPACITY = MRC is greater than or equal to 200 MMBtu/hr but less than 250 MMBtu/hr. NOX MONITORING SYSTEM = Continuous emissions monitoring system. FUEL FLOW MONITORING = Unit operates with a NO_x_ and diluent CEMS and monitors stack exhaust flow per 30 TAC §§ 117.140(a)(2)(A), 117.340(a)(2)(A) or 117.440(a)(2)(A). RACT DATE PLACED IN SERVICE = On or before November 15, 1992. CO EMISSION LIMITATION = Title 30 TAC § 117.110(c)(1). CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).

Unit ID	Regulation	Index Number	Basis of Determination*
			INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES FUEL TYPE #1 [REG VII] = Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases. NOX EMISSION LIMIT AVERAGE = Emission limit in pounds/MMBtu on a rolling 30-day average. NOX REDUCTIONS = No NO_x_ reduction. ANNUAL HEAT INPUT/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Annual heat input is greater than 2.2(10`11`) Btu/yr, based on rolling 12-month average. COMMON STACK COMBINED = The unit is not vented through a common stack; or the total rated heat input from combined units is less than 250 MMBtu/hr; and the annual combined heat input is 2.2(10`11`) Btu/yr or less.
UEHK10	40 CFR Part 60, Subpart Db	60Db-005	40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #1 = Natural gas. CONSTRUCTION/MODIFICATION DATE = On or after November 25, 1986, and on or before July 9, 1997. 40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #2 = Byproduct/waste. 40 CFR 60 (NSPS) SUBPART DB HEAT INPUT CAPACITY = Heat input capacity is greater than 100 MMBtu/hr (29 MW) but less than or equal to 250 MMBtu/hr (73 MW). PM MONITORING TYPE = No particulate monitoring. 40 CFR 60 (NSPS) SUBPART DA CORRESPONDING APPLICABILITIES [NSPS DB] = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da. 40 CFR 60 (NSPS) SUBPART DB CHANGES TO EXISTING AFFECTED FACILITY = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281. NOX MONITORING TYPE = Continuous emission monitoring system. SUBPART D CORRESPONDING APPLICABILITIES = The affected facility does not meet the applicability requirements of 40 CFR Part 60, Subpart D. SO2 MONITORING TYPE = No SO_2_ monitoring. SUBPART EA, EB OR AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA. SUBPART J CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J. SUBPART E CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E. SUBPART KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK. TECHNOLOGY TYPE = None. ACF OPTION - SO2 = Other ACF or no ACF. SUBPART CB OR BBBB = The affected facility is not covered by an EPA approved State or Federal section 111(d)/129 plan implementing 40 CFR Part 60, Subpart Cb or BBBB emission guidelines. UNIT TYPE = Duct burner as part of combined cycle system (compliance with NO_x_ limitations is determined by conducting a performance test). ACF OPTION - PM = Other ACF or no ACF. ACF OPTION - NOX = Other ACF or no ACF.
UEHK11	30 TAC Chapter 117, Subchapter B	R7ICI-603	UNIT TYPE = Other industrial, commercial, or institutional boiler. MAXIMUM RATED CAPACITY = MRC is greater than or equal to 250 MMBtu/hr. RACT DATE PLACED IN SERVICE = After June 9, 1993, and before the final compliance date specified in 30 TAC § 117.9000. FUNCTIONALLY IDENTICAL REPLACEMENT/INST., COMM., INDUSTRIAL SOURCES [REG VII] = Unit is not a functionally identical replacement.
UEHK11	40 CFR Part 60, Subpart Db	60Db-002x	40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #1 = Natural gas.

Unit ID	Regulation	Index Number	Basis of Determination*
			CONSTRUCTION/MODIFICATION DATE = On or after November 25, 1986, and on or before July 9, 1997. 40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #2 = Byproduct/waste. 40 CFR 60 (NSPS) SUBPART DB HEAT INPUT CAPACITY = Heat input capacity is greater than 250 MMBtu/hr (73 MW). PM MONITORING TYPE = No particulate monitoring. 40 CFR 60 (NSPS) SUBPART DA CORRESPONDING APPLICABILITIES [NSPS DB] = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da. 40 CFR 60 (NSPS) SUBPART DB CHANGES TO EXISTING AFFECTED FACILITY = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281. NOX MONITORING TYPE = Continuous emission monitoring system. SUBPART D CORRESPONDING APPLICABILITIES = The affected facility does not meet the applicability requirements of 40 CFR Part 60, Subpart D. SO2 MONITORING TYPE = No SO_2_ monitoring. SUBPART EA, EB OR AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA. SUBPART J CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J. SUBPART E CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E. SUBPART KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK. TECHNOLOGY TYPE = None. ACF OPTION - SO2 = Other ACF or no ACF. SUBPART CB OR BBBB = The affected facility is not covered by an EPA approved State or Federal section 111(d)/129 plan implementing 40 CFR Part 60, Subpart Cb or BBBB emission guidelines. UNIT TYPE = OTHER UNIT TYPE ACF OPTION - PM = Other ACF or no ACF. HEAT RELEASE RATE = Natural gas oil with a heat release rate greater than 70 MBtu/hr/ft`3`. ACF OPTION - NOX = Other ACF or no ACF.
UEHK9	30 TAC Chapter 117, Subchapter B	R7ICI-607	NOX EMISSION LIMITATION = Title 30 TAC § 117.110(a)(1). UNIT TYPE = Other industrial, commercial, or institutional boiler. MAXIMUM RATED CAPACITY = MRC is greater than or equal to 200 MMBtu/hr but less than 250 MMBtu/hr. NOX MONITORING SYSTEM = Continuous emissions monitoring system. FUEL FLOW MONITORING = Unit operates with a NO_x_ and diluent CEMS and monitors stack exhaust flow per 30 TAC §§ 117.140(a)(2)(A), 117.340(a)(2)(A) or 117.440(a)(2)(A). RACT DATE PLACED IN SERVICE = On or before November 15, 1992. CO EMISSION LIMITATION = Title 30 TAC § 117.110(c)(1). CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1). INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES FUEL TYPE #1 [REG VII] = Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases. NOX EMISSION LIMIT AVERAGE = Emission limit in pounds/MMBtu on a rolling 30-day average. NOX REDUCTIONS = No NO_x_ reduction. ANNUAL HEAT INPUT/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Annual heat input is greater than 2.2(10`11`) Btu/yr,

Unit ID	Regulation	Index Number	Basis of Determination*
			based on rolling 12-month average. COMMON STACK COMBINED = The unit is not vented through a common stack; or the total rated heat input from combined units is less than 250 MMBtu/hr; and the annual combined heat input is 2.2(10`11`) Btu/yr or less.
UEHK9	40 CFR Part 60, Subpart Db	60Db-005	40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #1 = Natural gas. CONSTRUCTION/MODIFICATION DATE = On or after November 25, 1986, and on or before July 9, 1997. 40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #2 = Byproduct/waste. 40 CFR 60 (NSPS) SUBPART DB HEAT INPUT CAPACITY = Heat input capacity is greater than 100 MMBtu/hr (29 MW) but less than or equal to 250 MMBtu/hr (73 MW). PM MONITORING TYPE = No particulate monitoring. 40 CFR 60 (NSPS) SUBPART DA CORRESPONDING APPLICABILITIES [NSPS DB] = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da. 40 CFR 60 (NSPS) SUBPART DB CHANGES TO EXISTING AFFECTED FACILITY = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281. NOX MONITORING TYPE = Continuous emission monitoring system. SUBPART D CORRESPONDING APPLICABILITIES = The affected facility does not meet the applicability requirements of 40 CFR Part 60, Subpart D. SO2 MONITORING TYPE = No SO_2_ monitoring. SUBPART EA, EB OR AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA. SUBPART J CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J. SUBPART E CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E. SUBPART KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK. TECHNOLOGY TYPE = None. ACF OPTION - SO2 = Other ACF or no ACF. SUBPART CB OR BBBB = The affected facility is not covered by an EPA approved State or Federal section 111(d)/129 plan implementing 40 CFR Part 60, Subpart Cb or BBBB emission guidelines. UNIT TYPE = Duct burner as part of combined cycle system (compliance with NO_x_ limitations is determined by conducting a performance test). ACF OPTION - PM = Other ACF or no ACF. ACF OPTION - NOX = Other ACF or no ACF.
UER037	30 TAC Chapter 111, Visible Emissions	R1111-002	ACID GASES ONLY [REG I] = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. EMERGENCY/UPSET CONDITIONS ONLY [REG I] = Flare is used under conditions other than emergency or upset conditions. ALTERNATE OPACITY LIMITATION [REG I] = Not complying with an alternate opacity limit under 30 TAC § 111.113.
UER037	40 CFR Part 60, Subpart A	60A-003	SUBJECT TO 40 CFR 60.18 = Flare is subject to 40 CFR § 60.18. ADHERING TO HEAT CONTENT SPECIFICATIONS = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4). FLARE ASSIST TYPE [NSPS A, NESHAP A, AND/OR MACT A] = Steam-assisted FLARE EXIT VELOCITY [NSPS A, NESHAP A, AND/OR MACT A] = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
UER044	30 TAC Chapter 111, Visible Emissions	R1111-002	ACID GASES ONLY [REG I] = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. EMERGENCY/UPSET CONDITIONS ONLY [REG I] = Flare is used under conditions other than emergency or upset conditions.

Unit ID	Regulation	Index Number	Basis of Determination*
			ALTERNATE OPACITY LIMITATION [REG I] = Not complying with an alternate opacity limit under 30 TAC § 111.113.
UER044	40 CFR Part 60, Subpart A	60A-003	SUBJECT TO 40 CFR 60.18 = Flare is subject to 40 CFR § 60.18. ADHERING TO HEAT CONTENT SPECIFICATIONS = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4). FLARE ASSIST TYPE [NSPS A, NESHAP A, AND/OR MACT A] = Steam-assisted FLARE EXIT VELOCITY [NSPS A, NESHAP A, AND/OR MACT A] = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
UER046	30 TAC Chapter 111, Visible Emissions	R1111-002	ACID GASES ONLY [REG I] = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. EMERGENCY/UPSET CONDITIONS ONLY [REG I] = Flare is used under conditions other than emergency or upset conditions. ALTERNATE OPACITY LIMITATION [REG I] = Not complying with an alternate opacity limit under 30 TAC § 111.113.
UER046	40 CFR Part 60, Subpart A	60A-003	SUBJECT TO 40 CFR 60.18 = Flare is subject to 40 CFR § 60.18. ADHERING TO HEAT CONTENT SPECIFICATIONS = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4). FLARE ASSIST TYPE [NSPS A, NESHAP A, AND/OR MACT A] = Steam-assisted FLARE EXIT VELOCITY [NSPS A, NESHAP A, AND/OR MACT A] = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
A3CA31A	30 TAC Chapter 117, Subchapter B	R7ICI1101X	30 TAC CHAPTER 116 PERMIT LIMIT = NO_x_ emission limit in 30 TAC § 117.105 is not greater than the NO_x_ emission limit in a 30 TAC Chapter 116 permit. FUEL FLOW MONITORING = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a). MEGAWATT RATING = MR is greater than or equal to 10 MW and less than 30 MW. CO EMISSION LIMITATION = Title 30 TAC § 117.105(c). RACT DATE PLACED IN SERVICE = On or before November 15, 1992. AVERAGING METHOD = Complying with the applicable emission limits using a block one-hour average. CO MONITORING SYSTEM = Steam to fuel or water to fuel ratio monitoring. NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Water or steam injection. SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Stationary gas turbine. NOX EMISSION LIMITATION = Title 30 TAC § 117.105. NOX MONITORING SYSTEM = Steam to fuel or water to fuel ratio monitoring.
A3CA31A	40 CFR Part 60, Subpart GG	60GG-005Y	DUCT BURNER = The turbine is part of a combined cycle turbine system not equipped with supplemental heat (duct burner). NITROGEN OXIDES (NOX) CONTROL METHOD [NSPS GG] = Water or steam injection only. PEAK LOAD HEAT INPUT [NSPS GG] = Heat Input is greater than 100 MMBtu/hr (107.2 GJ/hr) CONSTRUCTION/MODIFICATION DATE [NSPS GG] = On or after October 3, 1982 and before July 8, 2004. NOX ALLOWANCE = The owner or operator is not electing to use a NO_x_ allowance in determining emission limits in 40 CFR § 60.332(a). NOX MONITORING METHOD = No continuous monitoring system is used. SULFUR CONTENT [NSPS GG] = Compliance is demonstrated by determining the sulfur content of the fuel. TURBINE CYCLE = Unit recovers heat from the gas turbine exhaust to heat water or generate steam. 40 CFR 60 (NSPS) SUBPART GG SERVICE TYPE = Type of service other than research and development, emergency, military or electrical utility generation. FUEL TYPE FIRED = Natural gas meeting the definition in § 60.331(u).

Unit ID	Regulation	Index Number	Basis of Determination*
			FUEL SUPPLY [NSPS GG] = Stationary gas turbine is supplied its fuel without intermediate bulk storage. FUEL MONITORING SCHEDULE = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored. MANUFACTURER'S BASE LOAD [NSPS GG] = Base load is less than or equal to 30 MW.
CG1	30 TAC Chapter 117, Subchapter B	R7ICI1102X	30 TAC CHAPTER 116 PERMIT LIMIT = NO_x_ emission limit in 30 TAC § 117.105 is greater than the NO_x_ emission limit in a 30 TAC Chapter 116 permit. FUEL FLOW MONITORING = Unit operates with a NO_x_ and diluent CEMS and monitors stack exhaust flow per 30 TAC §§ 117.140(a)(2)(A), 117.340(a) (2)(A) or 117.440(a) (2)(A) MEGAWATT RATING = MR is greater than or equal to 30 MW. CO EMISSION LIMITATION = Title 30 TAC § 117.105(c). RACT DATE PLACED IN SERVICE = On or before November 15, 1992. AVERAGING METHOD = Complying with the applicable emission limits using a block one-hour average. CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1). NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = No NO_x_ reduction. SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Stationary gas turbine. NOX EMISSION LIMITATION = Title 30 TAC § 117.105. NOX MONITORING SYSTEM = Continuous emissions monitoring system.
CG1	40 CFR Part 60, Subpart GG	60GG-006	DUCT BURNER = The turbine is part of a combined cycle turbine system not equipped with supplemental heat (duct burner). NITROGEN OXIDES (NOX) CONTROL METHOD [NSPS GG] = No NO_x_ control method is used. PEAK LOAD HEAT INPUT [NSPS GG] = Heat Input is greater than 100 MMBtu/hr (107.2 GJ/hr) CONSTRUCTION/MODIFICATION DATE [NSPS GG] = On or after October 3, 1982 and before July 8, 2004. NOX ALLOWANCE = The owner or operator is not electing to use a NO_x_ allowance in determining emission limits in 40 CFR § 60.332(a). NOX MONITORING METHOD = Continuous emission monitoring system. SULFUR CONTENT [NSPS GG] = Compliance is demonstrated by determining the sulfur content of the fuel. TURBINE CYCLE = Unit recovers heat from the gas turbine exhaust to heat water or generate steam. 40 CFR 60 (NSPS) SUBPART GG SERVICE TYPE = Type of service other than research and development, emergency, military or electrical utility generation. FUEL TYPE FIRED = Natural gas meeting the definition in § 60.331(u). FUEL SUPPLY [NSPS GG] = Stationary gas turbine is supplied its fuel without intermediate bulk storage. FUEL MONITORING SCHEDULE = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored. MANUFACTURER'S BASE LOAD [NSPS GG] = Base load is greater than 30 MW.
CG2	30 TAC Chapter 117, Subchapter B	R7ICI1102X	30 TAC CHAPTER 116 PERMIT LIMIT = NO_x_ emission limit in 30 TAC § 117.105 is greater than the NO_x_ emission limit in a 30 TAC Chapter 116 permit. FUEL FLOW MONITORING = Unit operates with a NO_x_ and diluent CEMS and monitors stack exhaust flow per 30 TAC §§ 117.140(a)(2)(A), 117.340(a) (2)(A) or 117.440(a) (2)(A) MEGAWATT RATING = MR is greater than or equal to 30 MW. CO EMISSION LIMITATION = Title 30 TAC § 117.105(c). RACT DATE PLACED IN SERVICE = On or before November 15, 1992. AVERAGING METHOD = Complying with the applicable emission limits using a block one-hour average.

Unit ID	Regulation	Index Number	Basis of Determination*
			CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1). NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = No NO_x_ reduction. SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Stationary gas turbine. NOX EMISSION LIMITATION = Title 30 TAC § 117.105. NOX MONITORING SYSTEM = Continuous emissions monitoring system.
CG2	40 CFR Part 60, Subpart GG	60GG-006	DUCT BURNER = The turbine is part of a combined cycle turbine system not equipped with supplemental heat (duct burner). NITROGEN OXIDES (NOX) CONTROL METHOD [NSPS GG] = No NO_x_ control method is used. PEAK LOAD HEAT INPUT [NSPS GG] = Heat Input is greater than 100 MMBtu/hr (107.2 GJ/hr) CONSTRUCTION/MODIFICATION DATE [NSPS GG] = On or after October 3, 1982 and before July 8, 2004. NOX ALLOWANCE = The owner or operator is not electing to use a NO_x_ allowance in determining emission limits in 40 CFR § 60.332(a). NOX MONITORING METHOD = Continuous emission monitoring system. SULFUR CONTENT [NSPS GG] = Compliance is demonstrated by determining the sulfur content of the fuel. TURBINE CYCLE = Unit recovers heat from the gas turbine exhaust to heat water or generate steam. 40 CFR 60 (NSPS) SUBPART GG SERVICE TYPE = Type of service other than research and development, emergency, military or electrical utility generation. FUEL TYPE FIRED = Natural gas meeting the definition in § 60.331(u). FUEL SUPPLY [NSPS GG] = Stationary gas turbine is supplied its fuel without intermediate bulk storage. FUEL MONITORING SCHEDULE = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored. MANUFACTURER'S BASE LOAD [NSPS GG] = Base load is greater than 30 MW.
A3FUG	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	R5352-ALL	OWNER/OPERATOR ASSUMES VOC FUGITIVE CONTROL REQUIREMENTS FOR ALL COMPONENTS SUBJECT TO 30 TAC CHAPTER 115, PET. REFINERY & PETROCHEMICALS WITH NO ALTERNATE CONTROL OR CONTROL DEVICE
A3FUG	40 CFR Part 60, Subpart VV	60VV-ALL	OWNER/OPERATOR ASSUMES VOC FUGITIVE CONTROL REQUIREMENTS FOR ALL COMPONENTS SUBJECT TO 40 CFR PART 60, SUBPART VV WITH NO ALTERNATE CONTROL OR CONTROL DEVICE
A3FUG	40 CFR Part 61, Subpart V	61V-ALL	OWNER/OPERATOR ASSUMES VHAPS FUGITIVE CONTROL REQUIREMENTS FOR ALL COMPONENTS SUBJECT TO 40 CFR PART 61, SUBPART V WITH NO ALTERNATE CONTROL OR CONTROL DEVICE
A3FUG	40 CFR Part 63, Subpart YY	63YY-F	SOURCE TYPE = ETHYLENE PRODUCTION EQUIPMENT TYPE = THE FUGITIVE UNIT CONTAINS EQUIPMENT, AS DEFINED IN § 63.1101, CONTACTING HAZARDOUS AIR POLLUTANTS IN TABLES 1 THROUGH 7 OR TABLE 9, AS APPROPRIATE
RSETFUG	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	R5352-ALL	OWNER/OPERATOR ASSUMES VOC FUGITIVE CONTROL REQUIREMENTS FOR ALL COMPONENTS SUBJECT TO 30 TAC CHAPTER 115, PET. REFINERY & PETROCHEMICALS WITH NO ALTERNATE CONTROL OR CONTROL DEVICE
RSETFUG	40 CFR Part 61, Subpart V	61V-ALL	OWNER/OPERATOR ASSUMES VHAPS FUGITIVE CONTROL REQUIREMENTS FOR ALL COMPONENTS SUBJECT TO 40 CFR PART 61, SUBPART V WITH NO ALTERNATE CONTROL OR CONTROL DEVICE
RSETFUG	40 CFR Part 63, Subpart H	63H-ALL	OWNER/OPERATOR ASSUMES HAPS FUGITIVE CONTROL REQUIREMENTS FOR ALL COMPONENTS SUBJECT TO 40 CFR PART 63, SUBPART H WITH NO ALTERNATE CONTROL OR CONTROL DEVICE
CT-1	40 CFR Part 63, Subpart YY	63YY-H	HEAT EXCHANGE SYSTEM = The cooling tower/heat exchange system is subject to the requirements of 40 CFR § 63.1100(e).

Unit ID	Regulation	Index Number	Basis of Determination*
CT-4	40 CFR Part 63, Subpart YY	63YY-H	HEAT EXCHANGE SYSTEM = The cooling tower/heat exchange system is subject to the requirements of 40 CFR § 63.1100(e).
A3GLOWS	30 TAC Chapter 115, Water Separation	R5131-001	ALTERNATE CONTROL REQUIREMENT (ACR) [REG V] = The executive director (or the EPA Administrator) has not approved an ACR or exemption criteria in accordance with 30 TAC § 115.910. EXEMPTION FROM CONTROL REQUIREMENTS OF 115.132 [REG V] = Any single or multiple compartment VOC water separator which separates materials having a true vapor pressure less than 0.5 psia (3.4 kPa) obtained from any equipment.
A3FA3103	30 TAC Chapter 115, Vent Gas Controls	R5121-3	ALTERNATE CONTROL REQUIREMENT [REG V] = Alternate control is not used. CONTROL DEVICE TYPE [REG V] = Vapor recovery system, as defined in 30 TAC § 115.10, other than an afterburner, blast furnace combustion device, boiler, catalytic or direct flame incinerator, carbon adsorption system, chiller, flare or vapor combustor. VENT TYPE [REG V] = Vent gas stream originates from a synthetic organic chemical manufacturing industry reactor process or distillation operation, as defined in 30 TAC § 115.10.
A3FA3205A	30 TAC Chapter 115, Vent Gas Controls	R5121-6	VENT TYPE [REG V] = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.
A3FA3205B	30 TAC Chapter 115, Vent Gas Controls	R5121-6	VENT TYPE [REG V] = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.
A3FA357	30 TAC Chapter 115, Vent Gas Controls	R5121-6	VENT TYPE [REG V] = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.
A3FO11	30 TAC Chapter 115, Vent Gas Controls	R5121-6	VENT TYPE [REG V] = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.
A3FA3103	40 CFR Part 60, Subpart NNN	60NNN-047	40 CFR 60 (NSPS) SUBPART NNN CHEMICALS = DISTILLATION UNIT PRODUCES ANY CHEMICAL LISTED IN 40 CFR § 60.667 AS A PRODUCT, CO-PRODUCT, BY-PRODUCT, OR INTERMEDIATE TOTAL RESOURCE EFFECTIVENESS (TRE) [NSPS NNN] = < OR EQUAL TO 8.0 NOT FROM HALOGENATED VENT STREAM CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS NNN] = AFTER DECEMBER 30, 1983 TOTAL ORGANIC COMPOUNDS (TOC) REDUCTION = COMPLIANCE IS ACHIEVED THROUGH THE USE OF A NON-FLARE COMBUSTION DEVICE. 40 CFR 60 (NSPS) SUBPART NNN CONTROL DEVICE = BOILER/PROCESS HEATER < 44 MW VENT TYPE [NSPS NNN] = DISCHARGING TO A VRS DISTILLATION UNIT TYPE (NSPS NNN) = DOES NOT QUALIFY FOR ANY EXEMPTION IN § 60.660(C)(1)-(3) TOTAL DESIGN CAPACITY [NSPS NNN] = > OR EQUAL TO 1 GGRAM/YR VENT STREAM FLOW RATE [NSPS NNN] = > OR EQUAL TO 0.008 SCM/MIN
A3FA3103	40 CFR Part 60, Subpart NNN	60NNN-048	40 CFR 60 (NSPS) SUBPART NNN CHEMICALS = DISTILLATION UNIT PRODUCES ANY CHEMICAL LISTED IN 40 CFR § 60.667 AS A PRODUCT, CO-PRODUCT, BY-PRODUCT, OR INTERMEDIATE TOTAL RESOURCE EFFECTIVENESS (TRE) [NSPS NNN] = < OR EQUAL TO 8.0 NOT FROM HALOGENATED VENT STREAM CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE [NSPS NNN] = AFTER DECEMBER 30, 1983 TOTAL ORGANIC COMPOUNDS (TOC) REDUCTION = COMPLIANCE IS ACHIEVED THROUGH THE USE OF A NON-FLARE COMBUSTION DEVICE. 40 CFR 60 (NSPS) SUBPART NNN CONTROL DEVICE = BOILER/PROCESS HEATER > OR EQUAL TO 44 MW

Unit ID	Regulation	Index Number	Basis of Determination*
			VENT TYPE [NSPS NNN] = DISCHARGING TO A VRS DISTILLATION UNIT TYPE (NSPS NNN) = DOES NOT QUALIFY FOR ANY EXEMPTION IN § 60.660(C)(1)-(3) TOTAL DESIGN CAPACITY [NSPS NNN] = > OR EQUAL TO 1 GGRAM/YR VENT STREAM FLOW RATE [NSPS NNN] = > OR EQUAL TO 0.008 SCM/MIN
A3WASTE	40 CFR Part 63, Subpart YY	63YY-W	FACILITY TYPE = Ethylene production facility
PROA3WW	40 CFR Part 61, Subpart FF	61FFTP-WW1a	AMOC = NOT USING AN ALTERNATE MEANS OF COMPLIANCE BY-PASS LINE = CLOSED-VENT SYSTEM CONTAINS A BY-PASS LINE THAT COULD DIVERT THE VENT STREAM AWAY FROM THE CONTROL DEVICE CONTINUOUS MONITORING = WASTEWATER TREATMENT SYSTEM UNIT PROCESS PARAMETERS ARE CONTINUOUSLY MONITORED TO INDICATE PROPER SYSTEM OPERATION BY-PASS LINE VALVE = A CAR-SEAL OR LOCK AND KEY CONFIGURATION IS USED TO SECURE THE BY-PASS LINE VALVE IN THE CLOSED POSITION COMPLYING WITH § 61.342(E) = FACILITY IS NOT COMPLYING WITH § 61.342(E) CONTROL DEVICE TYPE/OPERATION = BOILER OR PROCESS HEATER, DESIGN HEAT INPUT LESS THAN 44 MW, THAT ACHIEVES A TOC CONCENTRATION OF 20 PPMV OPENINGS = TREATMENT PROCESS OR WASTEWATER TREATMENT SYSTEM UNIT HAS OPENINGS STREAM COMBINATION = PROCESS WASTEWATER, PRODUCT TANK DRAWDOWN OR LANDFILL LEACHATE IS NOT COMBINED WITH OTHER WASTE STREAMS FOR PURPOSES OF FACILITATING MANAGEMENT BENZENE REMOVAL = BENZENE IS REMOVED FROM THE WASTE STREAM TO A LEVEL OF LESS THAN 10 PPMV ON A FLOW WEIGHTED ANNUAL AVERAGE BASIS ENGINEERING CALCULATIONS = PERFORMANCE TESTS ARE USED TO SHOW THAT THE CONTROL DEVICE IS PROVEN TO ACHIEVE ITS EMISSION LIMITATION LESS THAN ATMOSPHERIC = CLOSED VENT SYSTEM OPERATED AT AMBIENT OR POSITIVE PRESSURE CLOSED VENT AND CONTROL DEVICE = BEING USED PROCESS OF STREAM EXEMPTION = TREATMENT PROCESS OR WASTE STREAM IS NOT COMPLYING WITH § 61.348(D) AMOC = NOT USING AN ALTERNATE MEANS OF COMPLIANCE (AMOC) TO MEET THE REQUIREMENTS OF 40 CFR § 61.349 FOR A CLOSED-VENT SYSTEM AND CONTROL DEVICE TREATMENT PROCESS ENGINEERING CALCULATIONS = ENGINEERING CALCULATIONS SHOW THAT THE TREATMENT PROCESS OR WASTEWATER TREATMENT SYSTEM UNIT IS PROVEN TO ACHIEVE ITS EMISSION LIMITATION
PRORSHON	40 CFR Part 63, Subpart F	63F-002	APPLICABLE CHEMICALS = THE CHEMICAL MANUFACTURING PROCESS UNIT MANUFACTURES, AS A PRIMARY PRODUCT, ONE OR MORE OF THE CHEMICALS LISTED IN 40 CFR § 63.100(B)(1)(I) OR 40 CFR § 63.100(B)(1)(II) TABLE 2 HAP = THE CHEMICAL MANUFACTURING PROCESS UNIT USES AS A REACTANT OR MANUFACTURES, AS A PRODUCT OR CO-PRODUCT, ONE OR MORE OF THE ORGANIC HAZARDOUS AIR POLLUTANTS (HAPS) IN TABLE 2 ALTERNATE MEANS OF EMISSION LIMITATION = AN ALTERNATIVE MEANS OF EMISSION LIMITATION IS NOT USED TO ACHIEVE A REDUCTION IN ORGANIC HAP EMISSION HEAT EXCHANGE SYSTEM = A HEAT EXCHANGE SYSTEM IS NOT USED

* - The “unit attributes” or operating conditions that determine what requirements apply

NSR Versus Title V FOP

The state of Texas has two Air permitting programs, New Source Review (NSR) and Title V Federal Operating Permits. The two programs are substantially different both in intent and permit content.

NSR is a preconstruction permitting program authorized by the Texas Clean Air Act and Title I of the Federal Clean Air Act (FCAA). The processing of these permits is governed by 30 Texas Administrative Code (TAC) Chapter 116.111. The Title V Federal Operating Program is a federal program authorized under Title V of the FCAA that has been delegated to the state of Texas to administer and is governed by 30 TAC Chapter 122. The major differences between the two permitting programs are listed in the table below:

NSR Permit	Federal Operating Permit(FOP)
Issued Prior to new Construction or modification of an existing facility	For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.
Authorizes air emissions	Codifies existing applicable requirements, does not authorize new emissions
Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented.	Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.
Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.	One public notice required. Opportunity for public comments. No contested case hearings.
Applies to all point source emissions in the state.	Applies to all major sources and some non-major sources identified by the EPA.
Applies to facilities: a portion of site or individual emission sources	One or multiple FOPs cover the entire site (consists of multiple facilities)
Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.	Permits include terms and conditions that specify the general operational requirements of the site; and also include codification of all applicable requirements for emission units at the site.
Opportunity for EPA review for Federal Prevention of Significant Deterioration (PSD) and Nonattainment (NA) permits for major sources.	Opportunity for EPA review, Affected states review, and a Public petition period for every FOP.
Permits have a table listing maximum emission limits for pollutants	Permit has an applicable requirements table and Periodic Monitoring (PM) / Compliance Assurance Monitoring (CAM) tables which document applicable monitoring requirements.

Permits can be altered or amended upon application by company. Permits must be issued before construction or modification of facilities can begin.	Permits can be revised through several revision processes, which provide for different levels of public notice and opportunity to comment. Changes that would be significant revisions require that a revised permit be issued before those changes can be operated.
NSR permits are issued independent of FOP requirements.	FOP are independent of NSR permits, but contain a list of all NSR permits incorporated by reference

New Source Review Requirements

Below is a list of the New Source Review (NSR) permits for the permitted area. These NSR permits are incorporated by reference into the operating permit and are enforceable under it. These permits can be found in the main TCEQ file room, located on the first floor of Building E, 12100 Park 35 Circle, Austin, Texas. The Public Education Program may be contacted at 1-800-687-4040 or the Air Permits Division (APD) may be contacted at 1-512-239-1250 for help with any question.

Additionally, the site contains emission units that are permitted by rule under the requirements of 30 TAC Chapter 106, Permits by Rule. The following table specifies the permits by rule that apply to the site. All current permits by rule are contained in Chapter 106. Outdated 30 TAC Chapter 106 permits by rule may be viewed at the following Web site:

www.tceq.state.tx.us/permitting/air/permitbyrule/historical_rules/old106list/index106.html

Outdated Standard Exemption lists may be viewed at the following Web site:

www.tceq.state.tx.us/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSD-TX-780	Issuance Date: 07/11/2014
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 16909	Issuance Date: 07/11/2014
Authorization No.: 19823	Issuance Date: 02/22/2006
Authorization No.: 29516	Issuance Date: 08/15/2008
Authorization No.: 49247	Issuance Date: 10/03/2012
Authorization No.: 56390	Issuance Date: 05/13/2014
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 005	Version No./Date: 09/23/1982
Number: 005	Version No./Date: 03/15/1985

Number: 005	Version No./Date: 11/05/1986
Number: 005	Version No./Date: 08/30/1988
Number: 005	Version No./Date: 07/20/1992
Number: 005	Version No./Date: 10/04/1995
Number: 014	Version No./Date: 01/08/1980
Number: 014	Version No./Date: 09/12/1989
Number: 051	Version No./Date: 11/05/1986
Number: 051	Version No./Date: 08/30/1988
Number: 051	Version No./Date: 07/20/1992
Number: 051	Version No./Date: 06/07/1996
Number: 058	Version No./Date: 01/08/1980
Number: 080	Version No./Date: 01/08/1980
Number: 086	Version No./Date: 07/20/1992
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.262	Version No./Date: 09/04/2000
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.355	Version No./Date: 11/01/2001
Number: 106.433	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 03/14/1997
Number: 106.511	Version No./Date: 03/14/1997

Emission Units and Emission Points

In air permitting terminology, any source capable of generating emissions (for example, an engine or a sandblasting area) is called an Emission Unit. For purposes of Title V, emission units are specifically listed in the operating permit when they have applicable requirements other than New Source Review (NSR), or when they are listed in the permit shield table.

The actual physical location where the emissions enter the atmosphere (for example, an engine stack or a sand-blasting yard) is called an emission point. For New Source Review preconstruction permitting purposes, every emission unit has an associated emission point. Emission limits are listed in an NSR permit, associated with an emission point. This list of emission points and emission limits per pollutant is commonly referred to as the "Maximum Allowable Emission Rate Table", or "MAERT" for short. Specifically, the MAERT lists the Emission Point Number (EPN) that identifies the emission point, followed immediately by the Source Name, identifying the emission unit that is the source of those emissions on this table.

Thus, by reference, an emission unit in a Title V operating permit is linked by reference number to an NSR authorization, and its related emission point.

Monitoring Sufficiency

Federal and state rules, 40 CFR § 70.6(a)(3)(i)(B) and 30 TAC § 122.142(c) respectively, require that each federal operating permit include additional monitoring for applicable requirements that lack periodic or instrumental monitoring (which may include recordkeeping that serves as monitoring) that yields reliable data from a relevant time period that are representative of the emission unit's compliance with the applicable emission limitation or standard. Furthermore, the federal operating permit must include compliance assurance monitoring (CAM) requirements for emission sources that meet the applicability criteria of 40 CFR Part 64 in accordance with 40 CFR § 70.6(a)(3)(i)(A) and 30 TAC § 122.604(b).

With the exception of any emission units listed in the Periodic Monitoring or CAM Summaries in the FOP, the TCEQ Executive Director has determined that the permit contains sufficient monitoring, testing, recordkeeping, and reporting requirements that assure compliance with the applicable requirements. If applicable, each emission unit that requires additional monitoring in the form of periodic monitoring or CAM is described in further detail under the Rationale for CAM/PM Methods Selected section following this paragraph.

Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected

Periodic Monitoring:

The Federal Clean Air Act requires that each federal operating permit include monitoring sufficient to assure compliance with the terms and conditions of the permit. Most of the emission limits and standards applicable to emission units at Title V sources include adequate monitoring to show that the units meet the limits and standards. For those requirements that do not include monitoring, or where the monitoring is not sufficient to assure compliance, the federal operating permit must include such monitoring for the emission units affected. The following emission units are subject to periodic monitoring requirements because the emission units are subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement that does not already require monitoring, or the monitoring for the applicable requirement is not sufficient to assure compliance:

Unit/Group/Process Information	
ID No.: A3FA3103	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-3
Pollutant: VOC	Main Standard: § 115.121(a)(2)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to measure and record fugitive emissions.	
Basis of monitoring: It is widely practiced and accepted to monitor the VOC concentration at the outlet of a control device by use of a portable analyzer with procedures such as EPA Test Method 25A or a VOC CEMS. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Outlet VOC concentration has been used as an indicator of VOC emissions in many federal rules including 40 CFR Part 60, Subpart III, 40 CFR Part 60, Subpart NNN, 40 CFR Part 60, Subpart RRR, 40 CFR Part 61, Subpart BB, 40 CFR Part 61, Subpart FF, 40 CFR Part 63, Subpart R, 40 CFR Part 63, Subpart DD, and 40 CFR Part 63, Subpart HH.	

Unit/Group/Process Information	
ID No.: A3FA3103	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-3
Pollutant: VOC	Main Standard: § 115.121(a)(2)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to visually inspect all components of the vapor collection system and any defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions.	
Basis of monitoring: It is widely practiced and accepted to use work practice as a monitoring option to demonstrate compliance. Preventive maintenance and visual inspections of control equipment, as recommended by the manufacturer, conducted by the owner or operator can ensure that the unit is operating properly. The work practice requirements prescribe that preventive maintenance and/or visual inspections be performed and a recorded in a log. This option assures that the owner or operator is adequately maintaining the control equipment.	

Unit/Group/Process Information	
ID No.: A3FA3205A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-6
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to measure and record fugitive emissions.	
Basis of monitoring: It is widely practiced and accepted to monitor the VOC concentration at the outlet of a control device by use of a portable analyzer with procedures such as EPA Test Method 25A or a VOC CEMS. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Outlet VOC concentration has been used as an indicator of VOC emissions in many federal rules including 40 CFR Part 60, Subpart III, 40 CFR Part 60, Subpart NNN, 40 CFR Part 60, Subpart RRR, 40 CFR Part 61, Subpart BB, 40 CFR Part 61, Subpart FF, 40 CFR Part 63, Subpart R, 40 CFR Part 63, Subpart DD, and 40 CFR Part 63, Subpart HH.	

Unit/Group/Process Information	
ID No.: A3FA3205A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-6
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to visually inspect all components of the vapor collection system and any defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions.	
Basis of monitoring: It is widely practiced and accepted to use work practice as a monitoring option to demonstrate compliance. Preventive maintenance and visual inspections of control equipment, as recommended by the manufacturer, conducted by the owner or operator can ensure that the unit is operating properly. The work practice requirements prescribe that preventive maintenance and/or visual inspections be performed and a recorded in a log. This option assures that the owner or operator is adequately maintaining the control equipment.	

Unit/Group/Process Information	
ID No.: A3FA3205B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-6
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to measure and record fugitive emissions.	
Basis of monitoring: It is widely practiced and accepted to monitor the VOC concentration at the outlet of a control device by use of a portable analyzer with procedures such as EPA Test Method 25A or a VOC CEMS. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Outlet VOC concentration has been used as an indicator of VOC emissions in many federal rules including 40 CFR Part 60, Subpart III, 40 CFR Part 60, Subpart NNN, 40 CFR Part 60, Subpart RRR, 40 CFR Part 61, Subpart BB, 40 CFR Part 61, Subpart FF, 40 CFR Part 63, Subpart R, 40 CFR Part 63, Subpart DD, and 40 CFR Part 63, Subpart HH.	

Unit/Group/Process Information	
ID No.: A3FA3205B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-6
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to visually inspect all components of the vapor collection system and any defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions.	
Basis of monitoring: It is widely practiced and accepted to use work practice as a monitoring option to demonstrate compliance. Preventive maintenance and visual inspections of control equipment, as recommended by the manufacturer, conducted by the owner or operator can ensure that the unit is operating properly. The work practice requirements prescribe that preventive maintenance and/or visual inspections be performed and a recorded in a log. This option assures that the owner or operator is adequately maintaining the control equipment.	

Unit/Group/Process Information	
ID No.: A3FA357	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-6
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to measure and record fugitive emissions.	
Basis of monitoring: It is widely practiced and accepted to monitor the VOC concentration at the outlet of a control device by use of a portable analyzer with procedures such as EPA Test Method 25A or a VOC CEMS. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Outlet VOC concentration has been used as an indicator of VOC emissions in many federal rules including 40 CFR Part 60, Subpart III, 40 CFR Part 60, Subpart NNN, 40 CFR Part 60, Subpart RRR, 40 CFR Part 61, Subpart BB, 40 CFR Part 61, Subpart FF, 40 CFR Part 63, Subpart R, 40 CFR Part 63, Subpart DD, and 40 CFR Part 63, Subpart HH.	

Unit/Group/Process Information	
ID No.: A3FA357	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-6
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to visually inspect all components of the vapor collection system and any defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions.	
Basis of monitoring: It is widely practiced and accepted to use work practice as a monitoring option to demonstrate compliance. Preventive maintenance and visual inspections of control equipment, as recommended by the manufacturer, conducted by the owner or operator can ensure that the unit is operating properly. The work practice requirements prescribe that preventive maintenance and/or visual inspections be performed and a recorded in a log. This option assures that the owner or operator is adequately maintaining the control equipment.	

Unit/Group/Process Information	
ID No.: A3FO11	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-6
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to measure and record fugitive emissions.	
Basis of monitoring: It is widely practiced and accepted to monitor the VOC concentration at the outlet of a control device by use of a portable analyzer with procedures such as EPA Test Method 25A or a VOC CEMS. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Outlet VOC concentration has been used as an indicator of VOC emissions in many federal rules including 40 CFR Part 60, Subpart III, 40 CFR Part 60, Subpart NNN, 40 CFR Part 60, Subpart RRR, 40 CFR Part 61, Subpart BB, 40 CFR Part 61, Subpart FF, 40 CFR Part 63, Subpart R, 40 CFR Part 63, Subpart DD, and 40 CFR Part 63, Subpart HH.	

Unit/Group/Process Information	
ID No.: A3FO11	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-6
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to visually inspect all components of the vapor collection system for defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions.	
Basis of monitoring: It is widely practiced and accepted to use work practice as a monitoring option to demonstrate compliance. Preventive maintenance and visual inspections of control equipment, as recommended by the manufacturer, conducted by the owner or operator can ensure that the unit is operating properly. The work practice requirements prescribe that preventive maintenance and/or visual inspections be performed and a recorded in a log. This option assures that the owner or operator is adequately maintaining the control equipment.	

Unit/Group/Process Information	
ID No.: A3TA339	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-005
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Record of Tank Construction Specifications	
Minimum Frequency: n/a	
Averaging Period: n/a	
Deviation Limit: Records are not kept.	
Basis of monitoring: The periodic monitoring option provided for emission units using a submerged fill pipe is location of the submerged fill pipe and structural integrity of the pipe. The location and the integrity of the pipe ensure that loading operations are controlled to prevent splash fill and reduce generated vapors; therefore, less emissions are released to the atmosphere. This approach was included as an option by the EPA in the "Periodic Monitoring Technical Reference Document" (April 1999) to monitor VOC sources.	

Unit/Group/Process Information	
ID No.: A3TA339	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-005
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Structural Integrity of the Pipe	
Minimum Frequency: Emptied and degassed	
Averaging Period: n/a	
Deviation Limit: Fill pipe repairs not completed prior to refilling storage vessel.	
Basis of monitoring: The periodic monitoring option provided for emission units using a submerged fill pipe is location of the submerged fill pipe and structural integrity of the pipe. The location and the integrity of the pipe ensure that loading operations are controlled to prevent splash fill and reduce generated vapors; therefore, less emissions are released to the atmosphere. This approach was included as an option by the EPA in the "Periodic Monitoring Technical Reference Document" (April 1999) to monitor VOC sources.	

Unit/Group/Process Information	
ID No.: RSET010	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Scrubber water flow rate	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Scrubber water flow rate less than 4,800 gallons per hour	
Basis of monitoring: The monitoring for pressure drop and liquid flow rate parameters can indicate malfunctions in the liquid pumping equipment, blockage of pipes or spray nozzles or the need to adjust the variable throat opening (if applicable). This type monitoring for wet scrubbers is commonly required in federal rules including 40 CFR Part 60, Subparts Y, HH, LL, NN, OOO, and PPP.	

Unit/Group/Process Information	
ID No.: RSET010	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Scrubber water inlet temperature	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Scrubber water inlet temperature greater than 108 deg F	
Basis of monitoring: The Scrubber efficiency is directly correlated to the water input temperature. If the inlet temperature exceeds the maximum specified, the scrubber may not perform as required.	

Unit/Group/Process Information	
ID No.: RSET010	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Ethylene oxide vapor flow rate to scrubber	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Ethylene oxide vapor flow rate to scrubber greater than 1,562.4 pounds per hour	
Basis of monitoring: The monitoring for the ratio of the liquid to gas flow rate are provided because monitoring these parameters can indicate malfunctions in the liquid pumping equipment, blockage of pipes or spray nozzles or the need to adjust the variable throat opening (if applicable). Similar type monitoring for wet scrubbers is commonly required in federal rules including 40 CFR Part 60, Subparts Y, HH, LL, NN, OOO, and PPP.	

Unit/Group/Process Information	
ID No.: RSET0126	
Control Device ID No.: RSET0126CAS	Control Device Type: Carbon Adsorption System (Non-Regenerative)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-052
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: VOC concentration	
Minimum Frequency: Daily or 20% of design carbon replacement interval	
Averaging Period: N/A	
Deviation Limit: Canister not replaced within 4 hours of breakthrough	
Basis of monitoring: For non-regenerative carbon adsorption systems monitoring the replacement interval of the carbon canister(s) is an effective way to ensure that the system is operating in accordance with its design. If the control device is operating in accordance with its design it will meet its control efficiency. Also, monitoring the carbon replacement interval of a carbon adsorption system is commonly required in federal and state rules, including: 40 CFR Part 60, Subpart QQQ; 40 CFR Part 61, Subpart FF; 40 CFR Part 63, Subparts EE, HH, and MMM; and 30 TAC Chapter 115.	

Unit/Group/Process Information	
ID No.: RSET0126	
Control Device ID No.: RSET0126CAS	Control Device Type: Carbon Adsorption System (Non-Regenerative)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-055
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: VOC concentration	
Minimum Frequency: Daily or 20% of design carbon replacement interval	
Averaging Period: N/A	
Deviation Limit: Canister not replaced within 4 hours of breakthrough	
Basis of monitoring: For non-regenerative carbon adsorption systems monitoring the replacement interval of the carbon canister(s) is an effective way to ensure that the system is operating in accordance with its design. If the control device is operating in accordance with its design it will meet its control efficiency. Also, monitoring the carbon replacement interval of a carbon adsorption system is commonly required in federal and state rules, including: 40 CFR Part 60, Subpart QQQ; 40 CFR Part 61, Subpart FF; 40 CFR Part 63, Subparts EE, HH, and MMM; and 30 TAC Chapter 115.	

Unit/Group/Process Information	
ID No.: RSET0127	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-052
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to perform monitoring in the required period.	
Basis of monitoring: It is widely practiced and accepted to monitor the VOC concentration at the outlet of a control device by use of a portable analyzer with procedures such as EPA Test Method 25A or a VOC CEMS. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Outlet VOC concentration has been used as an indicator of VOC emissions in many federal rules including 40 CFR Part 60, Subpart III, 40 CFR Part 60, Subpart NNN, 40 CFR Part 60, Subpart RRR, 40 CFR Part 61, Subpart BB, 40 CFR Part 61, Subpart FF, 40 CFR Part 63, Subpart R, 40 CFR Part 63, Subpart DD, and 40 CFR Part 63, Subpart HH.	

Unit/Group/Process Information	
ID No.: RSET0127	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-052
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Failure to perform inspection in the required period.	
Basis of monitoring: It is widely practiced and accepted to use work practice as a monitoring option to demonstrate compliance. Preventive maintenance and visual inspections of control equipment, as recommended by the manufacturer, conducted by the owner or operator can ensure that the unit is operating properly. The work practice requirements prescribe that preventive maintenance and/or visual inspections be performed and a recorded in a log. This option assures that the owner or operator is adequately maintaining the control equipment.	

Unit/Group/Process Information	
ID No.: RSET0180	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Scrubber water flow rate	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Scrubber water flow rate less than 4,800 gallons per hour	
Basis of monitoring: The monitoring for pressure drop and liquid flow rate parameters can indicate malfunctions in the liquid pumping equipment, blockage of pipes or spray nozzles or the need to adjust the variable throat opening (if applicable). This type monitoring for wet scrubbers is commonly required in federal rules including 40 CFR Part 60, Subparts Y, HH, LL, NN, OOO, and PPP.	

Unit/Group/Process Information	
ID No.: RSET0180	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Ethylene oxide vapor flow rate to scrubber	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Ethylene oxide vapor flow rate to scrubber greater than 1,562.4 pounds per hour	
Basis of monitoring: The monitoring for the ratio of the liquid to gas flow rate are provided because monitoring these parameters can indicate malfunctions in the liquid pumping equipment, blockage of pipes or spray nozzles or the need to adjust the variable throat opening (if applicable). Similar type monitoring for wet scrubbers is commonly required in federal rules including 40 CFR Part 60, Subparts Y, HH, LL, NN, OOO, and PPP.	

Unit/Group/Process Information	
ID No.: RSET0180	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Scrubber water inlet temperature	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Scrubber water inlet temperature greater than 108 deg F	
Basis of monitoring: The Scrubber efficiency is directly correlated to the water input temperature. If the inlet temperature exceeds the maximum specified, the scrubber may not perform as required.	

Unit/Group/Process Information	
ID No.: RSET0204	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Scrubber water flow rate	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Scrubber water flow rate less than 4,800 gallons per hour	
Basis of monitoring: The monitoring for pressure drop and liquid flow rate parameters can indicate malfunctions in the liquid pumping equipment, blockage of pipes or spray nozzles or the need to adjust the variable throat opening (if applicable). This type monitoring for wet scrubbers is commonly required in federal rules including 40 CFR Part 60, Subparts Y, HH, LL, NN, OOO, and PPP.	

Unit/Group/Process Information	
ID No.: RSET0204	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Scrubber water inlet temperature	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Scrubber water inlet temperature greater than 108EF	
Basis of monitoring: The Scrubber efficiency is directly correlated to the water input temperature. If the inlet temperature exceeds the maximum specified, the scrubber may not perform as required.	

Unit/Group/Process Information	
ID No.: RSET0204	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Ethylene oxide vapor flow rate to scrubber	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Ethylene oxide vapor flow rate to scrubber greater than 1,562.4 pounds per hour	
Basis of monitoring: The monitoring for the ratio of the liquid to gas flow rate are provided because monitoring these parameters can indicate malfunctions in the liquid pumping equipment, blockage of pipes or spray nozzles or the need to adjust the variable throat opening (if applicable). Similar type monitoring for wet scrubbers is commonly required in federal rules including 40 CFR Part 60, Subparts Y, HH, LL, NN, OOO, and PPP.	

Unit/Group/Process Information	
ID No.: RSET030	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Scrubber water flow rate	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Scrubber water flow rate less than 4,800 gallons per hour	
Basis of monitoring: The monitoring for pressure drop and liquid flow rate parameters can indicate malfunctions in the liquid pumping equipment, blockage of pipes or spray nozzles or the need to adjust the variable throat opening (if applicable). This type monitoring for wet scrubbers is commonly required in federal rules including 40 CFR Part 60, Subparts Y, HH, LL, NN, OOO, and PPP.	

Unit/Group/Process Information	
ID No.: RSET030	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Scrubber water inlet temperature	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Scrubber water inlet temperature greater than 108 deg F	
Basis of monitoring: The Scrubber efficiency is directly correlated to the water input temperature. If the inlet temperature exceeds the maximum specified, the scrubber may not perform as required.	

Unit/Group/Process Information	
ID No.: RSET030	
Control Device ID No.: RSEFO85	Control Device Type: Absorber (Direct Absorption)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-062
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Ethylene oxide vapor flow rate to scrubber	
Minimum Frequency: 4 times per hour	
Averaging Period: 1 hour	
Deviation Limit: Ethylene oxide vapor flow rate to scrubber greater than 1,562.4 pounds per hour	
Basis of monitoring: The monitoring for the ratio of the liquid to gas flow rate are provided because monitoring these parameters can indicate malfunctions in the liquid pumping equipment, blockage of pipes or spray nozzles or the need to adjust the variable throat opening (if applicable). Similar type monitoring for wet scrubbers is commonly required in federal rules including 40 CFR Part 60, Subparts Y, HH, LL, NN, OOO, and PPP.	

Unit/Group/Process Information	
ID No.: RSET087	
Control Device ID No.: UER044	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-052
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Once per hour	
Averaging Period: n/a	
Deviation Limit: Absence of flare pilot flame.	
Basis of monitoring: It is widely practiced and accepted to monitor the flare pilot flame by closed circuit cameras, thermocouples and visual inspection. The presence of the pilot flame demonstrates that VOC emissions are combusted. Monitoring the presence of a pilot flame is required in many federal rules, including: 40 CFR Part 60, Subparts K, III, NNN, QQQ, and RRR; 40 CFR Part 61, Subparts BB and FF; and 40 CFR Part 63, Subparts G, R, W, DD, and HH.	

Unit/Group/Process Information	
ID No.: RSET088	
Control Device ID No.: UER046	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-052
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Once per hour	
Averaging Period: n/a	
Deviation Limit: Absence of flare pilot flame.	
Basis of monitoring: It is widely practiced and accepted to monitor the flare pilot flame by closed circuit cameras, thermocouples and visual inspection. The presence of the pilot flame demonstrates that VOC emissions are combusted. Monitoring the presence of a pilot flame is required in many federal rules, including: 40 CFR Part 60, Subparts K, III, NNN, QQQ, and RRR; 40 CFR Part 61, Subparts BB and FF; and 40 CFR Part 63, Subparts G, R, W, DD, and HH.	

Available Unit Attribute Forms

OP-UA1 - Miscellaneous and Generic Unit Attributes
OP-UA2 - Stationary Reciprocating Internal Combustion Engine Attributes
OP-UA3 - Storage Tank/Vessel Attributes
OP-UA4 - Loading/Unloading Operations Attributes
OP-UA5 - Process Heater/Furnace Attributes
OP-UA6 - Boiler/Steam Generator/Steam Generating Unit Attributes
OP-UA7 - Flare Attributes
OP-UA8 - Coal Preparation Plant Attributes
OP-UA9 - Nonmetallic Mineral Process Plant Attributes
OP-UA10 - Gas Sweetening/Sulfur Recovery Unit Attributes
OP-UA11 - Stationary Turbine Attributes
OP-UA12 - Fugitive Emission Unit Attributes
OP-UA13 - Industrial Process Cooling Tower Attributes
OP-UA14 - Water Separator Attributes
OP-UA15 - Emission Point/Stationary Vent/Distillation Operation/Process Vent Attributes
OP-UA16 - Solvent Degreasing Machine Attributes
OP-UA17 - Distillation Unit Attributes
OP-UA18 - Surface Coating Operations Attributes
OP-UA19 - Wastewater Unit Attributes
OP-UA20 - Asphalt Operations Attributes
OP-UA21 - Grain Elevator Attributes
OP-UA22 - Printing Attributes
OP-UA24 - Wool Fiberglass Insulation Manufacturing Plant Attributes
OP-UA25 - Synthetic Fiber Production Attributes
OP-UA26 - Electroplating and Anodizing Unit Attributes
OP-UA27 - Nitric Acid Manufacturing Attributes
OP-UA28 - Polymer Manufacturing Attributes
OP-UA29 - Glass Manufacturing Unit Attributes
OP-UA30 - Kraft, Soda, Sulfite, and Stand-Alone Semi-chemical Pulp Mill Attributes
OP-UA31 - Lead Smelting Attributes
OP-UA32 - Copper and Zinc Smelting/Brass and Bronze Production Attributes
OP-UA33 - Metallic Mineral Processing Plant Attributes
OP-UA34 - Pharmaceutical Manufacturing
OP-UA35 - Incinerator Attributes
OP-UA36 - Steel Plant Unit Attributes
OP-UA37 - Basic Oxygen Process Furnace Unit Attributes
OP-UA38 - Lead-Acid Battery Manufacturing Plant Attributes
OP-UA39 - Sterilization Source Attributes
OP-UA40 - Ferroalloy Production Facility Attributes
OP-UA41 - Dry Cleaning Facility Attributes
OP-UA42 - Phosphate Fertilizer Manufacturing Attributes
OP-UA43 - Sulfuric Acid Production Attributes
OP-UA44 - Municipal Solid Waste Landfill/Waste Disposal Site Attributes
OP-UA45 - Surface Impoundment Attributes
OP-UA46 - Epoxy Resins and Non-Nylon Polyamides Production Attributes

OP-UA47 - Ship Building and Ship Repair Unit Attributes
OP-UA48 - Air Oxidation Unit Process Attributes
OP-UA49 - Vacuum-Producing System Attributes
OP-UA50 - Fluid Catalytic Cracking Unit Catalyst Regenerator/Fuel Gas Combustion Device/Claus Sulfur Recovery Plant Attributes
OP-UA51 - Dryer/Kiln/Oven Attributes
OP-UA52 - Closed Vent Systems and Control Devices
OP-UA53 - Beryllium Processing Attributes
OP-UA54 - Mercury Chlor-Alkali Cell Attributes
OP-UA55 - Transfer System Attributes
OP-UA56 - Vinyl Chloride Process Attributes
OP-UA57 - Cleaning/De-painting Operation Attributes
OP-UA58 - Treatment Process Attributes
OP-UA59 - Coke By-Product Recovery Plant Attributes
OP-UA60 - Chemical Manufacturing Process Unit Attributes
OP-UA61 - Pulp, Paper, or Paperboard Producing Process Attributes
OP-UA62 - Glycol Dehydration Unit Attributes
OP-UA63 - Vegetable Oil Production Attributes