

Statement of Basis of the Federal Operating Permit

Equistar Chemicals, LP

Site/Area Name: La Porte Complex
Physical location: 1515 Miller Cut-Off Road
Nearest City: La Porte
County: Harris

Permit Number: O2223
Project Type: Minor Revision

Standard Industrial Classification (SIC) Code: 2821
SIC Name: Plastics Materials

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: April 13, 2015

Operating Permit Basis of Determination

Description of Revisions

Equistar Chemicals, LP/La Porte Complex/Olefin Unit, a Plastics Materials facility, was issued a renewed Federal Operating Permit (FOP) on 9/26/2013. A minor revision was received by the TCEQ on 1/28/2015. The following changes were made to permit content as a result of the minor revision: the compliance schedule for tank 6410F was removed because the unit is now in compliance with applicable requirements, NSPS VVa & MACT H requirements were incorporated for unit QEFUG, 30 TAC §106.261 and §106.262 were added to unit QEUNITNNN for the authorization of increased VOC & NO_x emissions, PBR and standard permit monitoring & recordkeeping requirements specified by the Special Terms and Conditions were updated.

Permit Area Process Description

The QE-1 Unit receives hydrocarbon feedstock where it is fed into nine pyrolysis furnaces. The pyrolysis furnaces, which are fired on natural gas and/or process gas, heat the feedstock to a temperature where it “cracks” into alkenes or “olefins.” The process effluent from the furnaces is quenched and scrubbed with water. Pyrolysis fuel oil (PFO) is removed as a product during water scrubbing. The quenched gases are compressed, dried, and cooled prior to beginning a series of purification/distillation steps. A hydrogen rich stream from the final chilling step is further purified in a pressure absorber (PSA) to produce hydrogen product.

The purification/distillation section consists of a demethanizer, deethanizer, acetylene recovery unit (ARU), depropanizer, methyl acetylene propadiene conversion unit (MAPD), debutanizer, C₃ splitter, and C₂ splitter. This equipment separates the pyrolysis gasoline stream into acetylene, ethylene, propylene, mixed C₄, and debutanizer aromatic concentrate [DAC or pyrolysis gasoline (pygas)] products. Ethane and propane recovered during the distillation and separation are recycled as feedstock into the pyrolysis furnaces.

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: O1606

Major Source Pollutants

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

Major Pollutants	VOC, PM, NO _x , HAPs, CO, GHGs
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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
- Appendix B
 - Copies of major NSR authorizations

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.

Appendix B

Copies of major NSR authorizations applicable to the units covered by this permit have been included in this Appendix, to ensure that all interested persons can access those authorizations.

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.A. 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.

Stationary Vents subject to 30 TAC Chapter 111 not addressed in the Special Terms and Conditions

All other stationary vents subject to 30 TAC Chapter 111 not covered in the Special Terms and Conditions are listed in the permit's Applicable Requirement Summary. The basis for the applicability determinations for these vents are listed in the Determination of Applicable Requirements table.

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)
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Prevention of Significant Deterioration (PSD)	Yes
Nonattainment New Source Review (NNSR)	Yes
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 feedwater) 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 deburring 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.texas.gov/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.texas.gov/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 *
PW7605JB	30 TAC Chapter 117, Subchapter B	R7ICI-1	Type of Service = Used exclusively in emergency situations [claiming the emergency service exemption under 30 TAC §§ 117.103(a)(6)(D), 117.203(a)(6)(D), 117.303(a)(6)(D) or 117.403(a)(7)(D)] Fuel Fired = Petroleum-based diesel fuel
PW7605JB	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-1	Brake HP = Stationary RICE with a brake hp greater than 500. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Service Type = Emergency use where the RICE operates or is contractually obligated to be available for more than 15 hours per calendar year as specified in 40 CFR §63.6640(f)(2)(ii)-(iii) or that operates for the purpose specified in 40 CFR §63.6640(f)(4)(ii).
PW7605JC	30 TAC Chapter 117, Subchapter B	R7ICI-1	Type of Service = Used exclusively in emergency situations [claiming the emergency service exemption under 30 TAC §§ 117.103(a)(6)(D), 117.203(a)(6)(D), 117.303(a)(6)(D) or 117.403(a)(7)(D)] Fuel Fired = Petroleum-based diesel fuel
PW7605JC	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-1	Brake HP = Stationary RICE with a brake hp greater than 500. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Service Type = Emergency use where the RICE operates or is contractually obligated to be available for more than 15 hours per calendar year as specified in 40 CFR §63.6640(f)(2)(ii)-(iii) or that operates for the purpose specified in 40 CFR §63.6640(f)(4)(ii).
PW7614JA	30 TAC Chapter 117, Subchapter B	R7ICI-1	Type of Service = Used exclusively in emergency situations [claiming the emergency service exemption under 30 TAC §§ 117.103(a)(6)(D), 117.203(a)(6)(D), 117.303(a)(6)(D) or 117.403(a)(7)(D)] Fuel Fired = Petroleum-based diesel fuel
PW7614JA	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-2	Brake HP = Stationary RICE with a brake hp greater than or equal to 300 hp and less than or equal to 500 hp. Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002. Service Type = Emergency use where the RICE operates or is contractually obligated to be available for more than 15 hours per calendar year as specified in 40 CFR §63.6640(f)(2)(ii)-(iii) or that operates for the purpose specified in 40 CFR §63.6640(f)(4)(ii). Stationary RICE Type = Compression ignition engine
DMFSUMPTK	30 TAC Chapter 115, Storage of VOCs	R5112-2	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank using a vapor recovery system (VRS) True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons Control Device Type = Flare
QE2410F	30 TAC Chapter 115, Storage of VOCs	R5112-1	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia Product Stored = VOC other than crude oil or condensate

Unit ID	Regulation	Index Number	Basis of Determination*
			Storage Capacity = Capacity is greater than 40,000 gallons
QE2410F	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Volatile organic liquid Storage Capacity = Capacity is greater than or equal to 39,900 gallons (151,000 liters) Maximum True Vapor Pressure = True vapor pressure is less than 0.5 psia
QE3416F	30 TAC Chapter 115, Storage of VOCs	R5112-2	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank using a vapor recovery system (VRS) True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons Control Device Type = Flare
QE3416F	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Volatile organic liquid Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
QE5407FA	30 TAC Chapter 115, Storage of VOCs	R5112-1	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 40,000 gallons
QE5407FA	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Waste mixture of indeterminate or variable composition Storage Capacity = Capacity is greater than or equal to 39,900 gallons (151,000 liters) Maximum True Vapor Pressure = True vapor pressure is less than 0.5 psia
QE5407FA	40 CFR Part 63, Subpart YY	63YY-TANK	Source Type = Tank is at a polycarbonate production facility and meets the size and vapor pressure requirements of Table 5 or Table 6 to be subject to § 63.1103.
QE5407FB	30 TAC Chapter 115, Storage of VOCs	R5112-1	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 40,000 gallons
QE5407FB	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Waste mixture of indeterminate or variable composition Storage Capacity = Capacity is greater than or equal to 39,900 gallons (151,000 liters) Maximum True Vapor Pressure = True vapor pressure is less than 0.5 psia

Unit ID	Regulation	Index Number	Basis of Determination*
QE5407FB	40 CFR Part 63, Subpart YY	63YY-TANK	Source Type = Tank is at a polycarbonate production facility and meets the size and vapor pressure requirements of Table 5 or Table 6 to be subject to § 63.1103.
QE6410F	30 TAC Chapter 115, Storage of VOCs	R5112-3	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank using an internal floating roof (IFR) True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 40,000 gallons
QE6410F	40 CFR Part 63, Subpart YY	63YY-TANK	Source Type = Tank is located at a spandex production source and meets the size and vapor pressure requirements of Table 10 to be subject to §63.1103.
QE7409F	30 TAC Chapter 115, Storage of VOCs	R5112-2	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank using a vapor recovery system (VRS) True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons Control Device Type = Flare
QE7411F	30 TAC Chapter 115, Storage of VOCs	R5112-1	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 40,000 gallons
QE7412F	30 TAC Chapter 115, Storage of VOCs	R5112-1	Today's Date = Today's date is March 1, 2013 or later. Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 40,000 gallons
QE7412F	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Volatile organic liquid Storage Capacity = Capacity is greater than or equal to 39,900 gallons (151,000 liters) Maximum True Vapor Pressure = True vapor pressure is less than 0.5 psia
QE8404F	30 TAC Chapter	R5112-4	Today's Date = Today's date is March 1, 2013 or later.

Unit ID	Regulation	Index Number	Basis of Determination*
	115, Storage of VOCs		Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons
QE8404F	40 CFR Part 60, Subpart Kb	60Kb	Product Stored = Waste mixture of indeterminate or variable composition Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
QEBARGE	30 TAC Chapter 115, Loading and Unloading of VOC	R5212-3	Chapter 115 Facility Type = Marine terminal Marine Terminal Exemptions = The marine terminal is claiming one or more of the exemptions in 30 TAC § 115.217(a)(5)(B). True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia. Uncontrolled VOC Emissions = Uncontrolled VOC emissions are less than 100 tpy.
QEBARGE	40 CFR Part 61, Subpart BB	61BB-1	Negative Applicability = The loading rack loads materials other than benzene-laden waste, gasoline, crude oil, natural gas liquids, petroleum distillates or benzene-laden liquid from a coke by-product plant. Benzene By Weight = Concentration of benzene by weight in the liquid which is loaded is less than 70% benzene by weight. Annual Amount Loaded = Annual amount loaded is greater than or equal to 1.3 million liters (343,424 gallons).
QEBARGE	40 CFR Part 63, Subpart Y	63Y-1	Subpart Y Facility Type = Existing onshore loading terminal (located onshore or less than 0.5 miles from shore). Ballasting Operations = Operations other than or in addition to ballasting operations are performed at the facility. Vapor Pressure = Vapor pressure is greater than or equal to 10.3 kilopascals (1.5 psia) at standard conditions, 20° C and 760 mm Hg. Subpart BB Applicability = Marine vessel loading operations are not subject to and complying with 40 CFR Part 61, Subpart BB. Material Loaded = Material other than crude oil or gasoline. HAP Impurities Only = Marine vessel loading operations at loading berths transfer liquids containing organic hazardous air pollutants other than as impurities. Source Emissions = Source with emissions less than 10 and 25 tons.
QELOAD	30 TAC Chapter 115, Loading and Unloading of VOC	R5212-1	Chapter 115 Control Device Type = Vapor control system with a flare. Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. Alternate Control Requirement (ACR) = No alternate control requirements are being utilized. Vapor Tight = 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 = True vapor pressure greater than or equal to 0.5 psia. Daily Throughput = Daily throughput not determined since 30 TAC § 115.217(a)(2)(A) or 30 TAC § 115.217(b)(3)(A) exemption is not utilized. Control Options = Vapor control system that maintains a control efficiency of at least 90%.
QELOAD	30 TAC Chapter 115, Loading and	R5212-2	Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.

Unit ID	Regulation	Index Number	Basis of Determination*
	Unloading of VOC		<p>Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.</p> <p>Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.</p> <p>Transfer Type = Loading and unloading.</p> <p>True Vapor Pressure = True vapor pressure less than 0.5 psia.</p>
QE1001B	30 TAC Chapter 117, Subchapter B	R7310-PH1	<p>Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent.</p> <p>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).</p> <p>Unit Type = Process heater</p> <p>CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option</p> <p>Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr.</p> <p>CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NO_x Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average</p> <p>NO_x Reduction = No NO_x control method</p> <p>Fuel Type #1 = Natural gas</p> <p>Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases</p> <p>Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours.</p> <p>NO_x Monitoring System = Continuous emissions monitoring system</p> <p>Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on a rolling 12-month average.</p> <p>NO_x Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)</p>
QE1002B	30 TAC Chapter 117, Subchapter B	R7310-PH1	<p>Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent.</p> <p>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).</p> <p>Unit Type = Process heater</p> <p>CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option</p> <p>Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr.</p> <p>CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NO_x Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average</p> <p>NO_x Reduction = No NO_x control method</p> <p>Fuel Type #1 = Natural gas</p> <p>Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases</p> <p>Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours.</p> <p>NO_x Monitoring System = Continuous emissions monitoring system</p> <p>Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on a rolling 12-month average.</p> <p>NO_x Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)</p>
QE1003B	30 TAC Chapter	R7310-PH1	<p>Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent.</p>

Unit ID	Regulation	Index Number	Basis of Determination *
	117, Subchapter B		<p>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).</p> <p>Unit Type = Process heater</p> <p>CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option</p> <p>Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr.</p> <p>CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NO_x Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average</p> <p>NO_x Reduction = No NO_x control method</p> <p>Fuel Type #1 = Natural gas</p> <p>Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases</p> <p>Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours.</p> <p>NO_x Monitoring System = Continuous emissions monitoring system</p> <p>Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on a rolling 12-month average.</p> <p>NO_x Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)</p>
QE1004B	30 TAC Chapter 117, Subchapter B	R7310-PH1	<p>Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent.</p> <p>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).</p> <p>Unit Type = Process heater</p> <p>CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option</p> <p>Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr.</p> <p>CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NO_x Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average</p> <p>NO_x Reduction = No NO_x control method</p> <p>Fuel Type #1 = Natural gas</p> <p>Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases</p> <p>Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours.</p> <p>NO_x Monitoring System = Continuous emissions monitoring system</p> <p>Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on a rolling 12-month average.</p> <p>NO_x Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)</p>
QE1005B	30 TAC Chapter 117, Subchapter B	R7310-PH1	<p>Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent.</p> <p>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).</p> <p>Unit Type = Process heater</p> <p>CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option</p> <p>Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr.</p> <p>CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1).</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>NOx Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average</p> <p>NOx Reduction = No NO_x control method</p> <p>Fuel Type #1 = Natural gas</p> <p>Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases</p> <p>Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours.</p> <p>NOx Monitoring System = Continuous emissions monitoring system</p> <p>Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on a rolling 12-month average.</p> <p>NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)</p>
QE1006B	30 TAC Chapter 117, Subchapter B	R7310-PH1	<p>Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent.</p> <p>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).</p> <p>Unit Type = Process heater</p> <p>CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option</p> <p>Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr.</p> <p>CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NOx Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average</p> <p>NOx Reduction = No NO_x control method</p> <p>Fuel Type #1 = Natural gas</p> <p>Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases</p> <p>Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours.</p> <p>NOx Monitoring System = Continuous emissions monitoring system</p> <p>Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on a rolling 12-month average.</p> <p>NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)</p>
QE1007B	30 TAC Chapter 117, Subchapter B	R7310-PH1	<p>Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent.</p> <p>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).</p> <p>Unit Type = Process heater</p> <p>CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option</p> <p>Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr.</p> <p>CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NOx Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average</p> <p>NOx Reduction = No NO_x control method</p> <p>Fuel Type #1 = Natural gas</p> <p>Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases</p> <p>Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			NOx Monitoring System = Continuous emissions monitoring system Annual Heat Input = Annual heat input is greater than 2.2(10 ¹¹) Btu/yr, based on a rolling 12-month average. NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)
QE1008B	30 TAC Chapter 117, Subchapter B	R7310-PH1	Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent. 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). Unit Type = Process heater CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr. CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1). NOx Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average NOx Reduction = No NO _x control method Fuel Type #1 = Natural gas Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours. NOx Monitoring System = Continuous emissions monitoring system Annual Heat Input = Annual heat input is greater than 2.2(10 ¹¹) Btu/yr, based on a rolling 12-month average. NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)
QE1009B	30 TAC Chapter 117, Subchapter B	R7310-PH1	Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent. 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). Unit Type = Process heater CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr. CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1). NOx Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average NOx Reduction = No NO _x control method Fuel Type #1 = Natural gas Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours. NOx Monitoring System = Continuous emissions monitoring system Annual Heat Input = Annual heat input is greater than 2.2(10 ¹¹) Btu/yr, based on a rolling 12-month average. NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)
QE1010B	30 TAC Chapter 117, Subchapter B	R7310-PH1	Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent. 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),

Unit ID	Regulation	Index Number	Basis of Determination *
			<p>117.340(a)(2)(A) or 117.440(a)(2)(A). Unit Type = Process heater CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr. CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1). NOx Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average NH3 Emission Limitation = Title 30 TAC § 117.310(c)(2) NOx Reduction = Post combustion control technique with ammonia injection Fuel Type #1 = Natural gas NH3 Monitoring = Predictive emission monitoring system. Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours. NOx Monitoring System = Continuous emissions monitoring system Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on a rolling 12-month average. NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)</p>
QE1011B	30 TAC Chapter 117, Subchapter B	R7310-PH1	<p>Diluent CEMS = The process heater does not use a carbon dioxide CEMS to monitor diluent. 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). Unit Type = Process heater CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option Maximum Rated Capacity = Maximum rated capacity is at least 200 MMBtu/hr. CO Monitoring System = Continuous emission monitoring system complying with 30 TAC § 117.8100(a)(1). NOx Emission Limit Basis = Emission limit basis is not a 30 day rolling average or a block one-hour average NH3 Emission Limitation = Title 30 TAC § 117.310(c)(2) NOx Reduction = Post combustion control technique with ammonia injection Fuel Type #1 = Natural gas NH3 Monitoring = Predictive emission monitoring system. Fuel Type #2 = Gaseous fuel other than natural gas, landfill gas or renewable non-fossil fuel gases Fuel Type #3 = Gaseous fuel containing more than 50% hydrogen by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours. NOx Monitoring System = Continuous emissions monitoring system Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on a rolling 12-month average. NOx Emission Limitation = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8)</p>
QE5802UA	30 TAC Chapter 117, Subchapter B	R7310-1	<p>NOx Emission Limitation = Title 30 TAC § 117.310(d)(3) [relating to mass emissions cap and trade in 30 TAC Chapter 101, Subchapter H, Division 3 and Emission Specifications for Attainment Demonstration]. Unit Type = Other industrial, commercial, or institutional boiler.</p>

Unit ID	Regulation	Index Number	Basis of Determination *
			<p>Maximum Rated Capacity = MRC is greater than or equal to 250 MMBtu/hr.</p> <p>NOx Monitoring System = Continuous emissions monitoring system.</p> <p>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).</p> <p>CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option.</p> <p>CO Monitoring System = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>EGF System Cap Unit = The unit is not used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>Fuel Type #1 = Natural gas.</p> <p>Fuel Type #2 = Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases.</p> <p>NOx Emission Limit Average = Emission limit in pounds/MMBtu on a rolling 30-day average.</p> <p>NOx Reductions = Forced flue gas recirculation.</p> <p>Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on rolling 12-month average.</p>
QE5802UA	40 CFR Part 60, Subpart Db	60Db-1	<p>Alternate Emission Limit (AEL) = The facility combusts byproduct/waste with either natural gas or oil and did not petition the EPA Administrator to establish a NO_x emission limit that applies specifically when the byproduct/waste is combusted.</p> <p>Construction/Modification Date = On or after November 25, 1986, and on or before July 9, 1997.</p> <p>D-Series Fuel Type #1 = Natural gas.</p> <p>D-Series Fuel Type #2 = Byproduct/waste.</p> <p>Heat Input Capacity = Heat input capacity is greater than 250 MMBtu/hr (73 MW).</p> <p>PM Monitoring Type = No particulate monitoring.</p> <p>Opacity Monitoring Type = No particulate (opacity) monitoring.</p> <p>Subpart Da = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da.</p> <p>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.</p> <p>NOx Monitoring Type = Continuous emission monitoring system.</p> <p>SO₂ Monitoring Type = Fuel certification (maintaining receipts per § 60.49b(r)(1)).</p> <p>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.</p> <p>Subpart J = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J.</p> <p>Subpart E = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E.</p> <p>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.</p> <p>Technology Type = None.</p> <p>ACF Option - SO₂ = Other ACF or no ACF.</p> <p>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.</p> <p>Unit Type = OTHER UNIT TYPE</p> <p>ACF Option - PM = Other ACF or no ACF.</p> <p>Heat Release Rate = Natural gas oil with a heat release rate greater than 70 MBtu/hr/ft³.</p> <p>60.49Da(n) Alternative = The facility is not using the § 60.49Da(n) alternative.</p>

Unit ID	Regulation	Index Number	Basis of Determination *
			ACF Option - NO _x = Other ACF or no ACF. 60.49Da(m) Alternative = The facility is not using the § 60.49Da(m) alternative.
QE5802UA	40 CFR Part 60, Subpart Dc	60Dc	Construction/Modification Date = On or before June 9, 1989.
QE5802UA	40 CFR Part 63, Subpart DDDDD	63DDDDD-1	Construction/Reconstruction Date = Construction or reconstruction began after June 4, 2010.
QE5802UB	30 TAC Chapter 117, Subchapter B	R7310-2	<p>NO_x Emission Limitation = Title 30 TAC § 117.310(d)(3) [relating to mass emissions cap and trade in 30 TAC Chapter 101, Subchapter H, Division 3 and Emission Specifications for Attainment Demonstration].</p> <p>Unit Type = Other industrial, commercial, or institutional boiler.</p> <p>Maximum Rated Capacity = MRC is greater than or equal to 250 MMBtu/hr.</p> <p>NO_x Monitoring System = Continuous emissions monitoring system.</p> <p>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).</p> <p>CO Emission Limitation = Title 30 TAC § 117.310(c)(1) 400 ppmv option.</p> <p>CO Monitoring System = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>EGF System Cap Unit = The unit is not used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>Fuel Type #1 = Natural gas.</p> <p>Fuel Type #2 = Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases.</p> <p>NO_x Emission Limit Average = Emission limit in pounds/MMBtu on a rolling 30-day average.</p> <p>NO_x Reductions = Forced flue gas recirculation.</p> <p>Annual Heat Input = Annual heat input is greater than 2.2(10¹¹) Btu/yr, based on rolling 12-month average.</p>
QE5802UB	40 CFR Part 60, Subpart Db	60Db-1	<p>Alternate Emission Limit (AEL) = The facility combusts byproduct/waste with either natural gas or oil and did not petition the EPA Administrator to establish a NO_x emission limit that applies specifically when the byproduct/waste is combusted.</p> <p>Construction/Modification Date = On or after November 25, 1986, and on or before July 9, 1997.</p> <p>D-Series Fuel Type #1 = Natural gas.</p> <p>D-Series Fuel Type #2 = Byproduct/waste.</p> <p>Heat Input Capacity = Heat input capacity is greater than 250 MMBtu/hr (73 MW).</p> <p>PM Monitoring Type = No particulate monitoring.</p> <p>Opacity Monitoring Type = No particulate (opacity) monitoring.</p> <p>Subpart Da = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da.</p> <p>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.</p> <p>NO_x Monitoring Type = Continuous emission monitoring system.</p> <p>SO₂ Monitoring Type = Fuel certification (maintaining receipts per § 60.49b(r)(1)).</p> <p>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.</p> <p>Subpart J = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J.</p> <p>Subpart E = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E.</p> <p>Subpart KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK.</p> <p>Technology Type = None.</p> <p>ACF Option - SO₂ = Other ACF or no ACF.</p> <p>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.</p> <p>Unit Type = OTHER UNIT TYPE</p> <p>ACF Option - PM = Other ACF or no ACF.</p> <p>Heat Release Rate = Natural gas oil with a heat release rate greater than 70 MBtu/hr/ft³.</p> <p>60.49Da(n) Alternative = The facility is not using the § 60.49Da(n) alternative.</p> <p>ACF Option - NO_x = Other ACF or no ACF.</p> <p>60.49Da(m) Alternative = The facility is not using the § 60.49Da(m) alternative.</p>
QE5802UB	40 CFR Part 60, Subpart Dc	60Dc	Construction/Modification Date = On or before June 9, 1989.
QE5802UB	40 CFR Part 63, Subpart DDDDD	63DDDDD-1	Construction/Reconstruction Date = Construction or reconstruction began after June 4, 2010.
QE3050B	30 TAC Chapter 111, Visible Emissions	R1111-1	<p>Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1.</p> <p>Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions.</p>
QE3050B	30 TAC Chapter 115, HRVOC Vent Gas	R5722-001	<p>Monitoring Requirements = Flare is complying with the continuous monitoring requirements of § 115.725(d).</p> <p>Out of Service = Flare was not permanently out of service by April 1, 2006.</p> <p>Total Gas Stream = Flare receives a total gas stream with greater than 100 ppmv HRVOC at some time.</p> <p>Gas Stream Concentration = Flare receives a gas stream containing 5% or greater HRVOC by weight at some time.</p> <p>Multi-Purpose Usage = Flare is used for abatement of emissions from marine loading or transport vessel loading and unloading operations AND for abatement of emissions from scheduled or unscheduled maintenance, startup or shutdown activities AND as an emergency flare.</p> <p>Flow Rate = Flow rate of the gas routed to the flare is determined using the requirements of § 115.725(d)(1).</p> <p>Alternative Monitoring = No alternative monitoring and test methods are used.</p> <p>Physical Seal = Flare is equipped with a flow monitor or indicator.</p> <p>Minor Modificaion = No minor modifications to the monitoring and test methods are used.</p> <p>Tank Service = Flare is not in dedicated service for storage tanks with 95% or greater of an individual HRVOC.</p> <p>Flare Type = Flare is in multi-purpose service.</p>
QE3050B	40 CFR Part 60, Subpart A	60A-MAX	<p>Subject to 40 CFR § 60.18 = Flare is subject to 40 CFR § 60.18.</p> <p>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).</p> <p>Flare Assist Type = Steam-assisted</p> <p>Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec).</p> <p>Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).</p>
QE3050B	40 CFR Part 60, Subpart A	60A-NORM	<p>Subject to 40 CFR § 60.18 = Flare is subject to 40 CFR § 60.18.</p> <p>Adhering to Heat Content Specifications = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			velocity specifications in 40 CFR § 60.18(c)(4). Flare Assist Type = Steam-assisted Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
QE3050B	40 CFR Part 63, Subpart A	60A-NORM	Required Under 40 CFR Part 63 = Flare is not required by a Subpart under 40 CFR Part 63.
QE3050B	40 CFR Part 63, Subpart A	63A-MAX	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Steam assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
QE3050B	40 CFR Part 63, Subpart A	63A-NORM	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Steam assisted Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec) Heating Value of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm).
QE8050B	30 TAC Chapter 111, Visible Emissions	R1111-1	Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions.
QE8050B	30 TAC Chapter 115, HRVOC Vent Gas	R5722-001	Monitoring Requirements = Flare is complying with the continuous monitoring requirements of § 115.725(d). Out of Service = Flare was not permanently out of service by April 1, 2006. Total Gas Stream = Flare receives a total gas stream with greater than 100 ppmv HRVOC at some time. Gas Stream Concentration = Flare receives a gas stream containing 5% or greater HRVOC by weight at some time Multi-Purpose Usage = Flare is used for abatement of emissions from marine loading or transport vessel loading and unloading operations AND for abatement of emissions from scheduled or unscheduled maintenance, startup or shutdown activities AND as an emergency flare. Flow Rate = Flow rate of the gas routed to the flare is determined using the requirements of § 115.725(d)(1). Alternative Monitoring = No alternative monitoring and test methods are used. Physical Seal = Flare is equipped with a flow monitor or indicator. Minor Modificaiton = No minor modifications to the monitoring and test methods are used. Tank Service = Flare is not in dedicated service for storage tanks with 95% or greater of an individual HRVOC. Flare Type = Flare is in multi-purpose service.
QE8050B	40 CFR Part 60, Subpart A	60A-MAX	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 = Steam-assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).

Unit ID	Regulation	Index Number	Basis of Determination*
QE8050B	40 CFR Part 60, Subpart A	60A-NORM	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 = Steam-assisted Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
QE8050B	40 CFR Part 63, Subpart A	63A-MAX	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Steam assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
QE8050B	40 CFR Part 63, Subpart A	63A-NORM	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Steam assisted Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec) Heating Value of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm).
QEFUG	30 TAC Chapter 115, HRVOC Fugitive Emissions	R5780-ALL	SOP Index No. = HEAT EXCHANGER HEADS, ETC = THE FUGITIVE UNIT CONTAINS HEAT EXCHANGER HEADS, SIGHT GLASSES, METERS, GAUGES, SAMPLING CONNECTIONS, BOLTED MANWAYS, HATCHES, SUMP COVERS, JUNCTION VENT BOXES OR COVERS AND SEALS ON VOC WATER SEPARATORS VALVES (NOT PRESSURE RELIEF, OPEN-ENDED OR BYPASS LINE) = THE FUGITIVE UNIT CONTAINS VALVES OTHER THAN PRESSURE RELIEF, OPEN-ENDED OR BYPASS LINE VALVES FLANGES OR OTHER CONNECTORS = THE FUGITIVE UNIT CONTAINS FLANGES OR OTHER CONNECTORS COMPRESSOR SEALS = THE FUGITIVE UNIT CONTAINS COMPRESSOR SEALS PUMP SEALS = THE FUGITIVE UNIT CONTAINS PUMP SEALS AGITATORS = THE FUGITIVE UNIT CONTAINS AGITATORS
QEFUG	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	R5352-ALL	SOP/GOP Index No. = Owner/Operator assumes VOC fugitive control requirements for all components subject to 30 TAC Chapter 115, Subchapter D, Division 3 with no alternate control or control device.
QEFUG	40 CFR Part 60, Subpart VVa	60VVa-ALL	Produces Chemicals = The facility produces, as an intermediate or final product, one or more of the chemicals listed in 40 CFR § 60.489a. Affected Facility = The facility is an affected facility as defined in 40 CFR § 60.480a(a)(2). Construction/Modification Date = After November 7, 2006. Compliance Option = Choosing to comply with the provisions of 40 CFR Part 63, Subpart H.
QEFUG	40 CFR Part 63, Subpart H	63H-ALL	SOP Index No. = Owner/Operator assumes fugitive control requirements for all components in VOC or VHAP service subject to 40 CFR Part 63, Subpart H with no alternated control or control device. ANY (CLOSED VENT SYSTEMS) = COMPONENT PRESENT ANY (OPEN-ENDED VALVES OR LINES) = COMPONENT PRESENT BYPASS LINES = FUGITIVE UNIT WITH A CLOSED-VENT SYSTEM DOES NOT CONTAIN A BY-PASS LINE THAT COULD DIVERT A

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>VENT STREAM AWAY FROM THE CONTROL DEVICE AND TO THE ATMOSPHERE</p> <p>ENCLOSED-VENTED PROCESS UNIT AMEL = UNIT DOES NOT CONTAIN A TOTALLY ENCLOSED VENTED PROCESS UNIT COMPLYING WITH AN ALTERNATE MEANS OF EMISSION LIMITATION IN § 63.179</p> <p>EQUIPMENT TYPE = FUGITIVE UNIT CONTAINS EQUIPMENT LISTED IN 40 CFR § 63.160(A) WHICH IS OPERATED IN ORGANIC HAZARDOUS AIR POLLUTANT SERVICE</p> <p>GAS/VAPOR OR LIGHT LIQUID SERVICE (AGITATORS) = COMPONENT PRESENT</p> <p>LIGHT LIQUID SERVICE (PUMPS) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (AGITATORS) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (OPEN-ENDED VALVES OR LINES) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (PUMPS) = COMPONENT PRESENT</p> <p>NON RESEARCH AND DEVELOPMENT/BATCH PROCESSES = FUGITIVE UNIT CONTAINS PROCESSES OTHER THAN RESEARCH AND DEVELOPMENT FACILITIES AND BENCH-SCALE BATCH PROCESSES</p> <p>RECOVERY OR RECAPTURE DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT</p> <p>UNSAFE TO INSPECT = FOR A FUGITIVE UNIT THAT CONTAINS ANY CLOSED-VENT SYSTEM, THERE ARE NO PARTS DESIGNATED AS UNSAFE TO INSPECT</p> <p>ANY (INSTRUMENTATION SYSTEMS) = COMPONENT PRESENT</p> <p>BATCH PROCESS AMEL = UNIT DOES NOT CONTAIN A BATCH PROCESS UNIT COMPLYING WITH AN ALTERNATE MEANS OF EMISSION LIMITATION IN § 63.178</p> <p>DIFFICULT TO INSPECT = FUGITIVE UNIT CONTAINS ANY CLOSED-VENT SYSTEM WITH PARTS DESIGNATED AS DIFFICULT TO INSPECT</p> <p>GAS/VAPOR OR LIGHT LIQUID SERVICE (VALVES) = COMPONENT PRESENT</p> <p>QIP = UNIT OPTS TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR PUMPS</p> <p>VACUUM SERVICE = NOT ALL OF THE EQUIPMENT IN THE FUGITIVE UNIT IS IN VACUUM SERVICE</p> <p>ANY (COMPRESSORS) = COMPONENT PRESENT</p> <p>EMPLOYEE NUMBER = THE CORPORATION EMPLOYS 100 OR MORE PERSONS</p> <p>ENCLOSED COMBUSTION DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT</p> <p>HEAVY LIQUID SERVICE (INSTRUMENTATION SYSTEMS) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (VALVES) = COMPONENT PRESENT</p> <p>LESS THAN 300 OPERATING HOURS = THE FUGITIVE UNIT CONTAINS ANY EQUIPMENT IN ORGANIC HAZARDOUS AIR POLLUTANT (HAP) SERVICE THAT IS INTENDED TO OPERATE LESS THAN 300 HOURS PER CALENDAR YEAR</p> <p>ANY (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT</p> <p>GAS VAPOR SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE = ANY OF THE EQUIPMENT IN ORGANIC HAP SERVICE THAT IS INTENDED TO OPERATE LESS THAN 300 HOURS PER CALENDAR YEAR IS IN HEAVY LIQUID SERVICE</p> <p>QIP = UNIT OPTS TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR VALVES</p> <p>AMEL = FUGITIVE UNIT SOURCE OWNER/OPERATOR IS NOT ELECTING TO COMPLY WITH AN ALTERNATIVE MEANS OF EMISSION LIMITATION (AMEL)</p> <p>FLARES (CLOSED VENT SYSTEMS) = COMPONENT PRESENT</p> <p>GAS/VAPOR OR LIGHT LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT</p> <p>GENERAL AMEL = UNIT IS NOT COMPLYING WITH AN ALTERNATE MEANS OF EMISSION LIMITATION UNDER § 63.177</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>HEAVY LIQUID SERVICE (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT</p> <p>LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT</p> <p>ANY (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT</p> <p>UNITS WITHOUT AMEL = FUGITIVE UNIT EQUIPMENT OR PROCESS UNITS ARE NOT COMPLYING WITH AN ALTERNATE MEANS OF EMISSION LIMITATION.</p>
QEFUG	40 CFR Part 63, Subpart YY	63YY-FUG	<p>Source Type = Polycarbonate Production.</p> <p>Equipment Type = The fugitive unit contains equipment, as defined in § 63.1101, contactin hazardous air pollutants in Tables 1 through 7 or Table 9, as appropriate.</p>
QE7801U	30 TAC Chapter 115, HRVOC Cooling Towers	R5760-1	<p>Cooling Tower Heat Exchange System Exemptions = The cooling tower heat exchange system does not qualify for an exemption.</p> <p>Jacketed Reactor = The cooling tower heat exchange system is not in dedicated service to a jacketed reactor.</p> <p>Alternative Monitoring = Complying with the specified monitoring in 30 TAC § 115.764.</p> <p>Design Capacity = Design capacity to circulate 8000 gpm or greater.</p> <p>Finite Volume System = The cooling tower heat exchange system is complying with the requirements in § 115.764(a).</p> <p>Modified Monitoring = NOT USING MINOR MODIFICATIONS TO THE MONITORING AND TESTING METHODS IN 30 TAC § 115.764.</p> <p>Flow Monitoring/Testing Method = Choosing to use a continuous flow monitor on each inlet of each cooling tower in accordance with § 115.764(a)(1), (b)(1), or (h)(1).</p> <p>Total Strippalbe VOC = The cooling tower heat exchange system is complying with the requirements of § 115.764(a).</p> <p>On-Line Monitor = A continuous on-line monitor capable of providing total HRVOC and speciated HRVOCs in ppbw is being used.</p>
QE7801U	40 CFR Part 63, Subpart Q	63Q	Used Compounds Containing Chromium on or After September 8, 1994 = The industrial process cooling tower has not used compounds containing chromium on or after September 8, 1994.
QE8701L	30 TAC Chapter 115, Water Separation	R5131-1	<p>Alternate Control Requirement = The executive director (or the EPA Administrator) has not approved an ACR or exemption criteria in accordance with 30 TAC § 115.910.</p> <p>Exemption = 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.</p>
QE1001B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1002B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1003B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1004B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1005B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1006B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1007B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1008B	30 TAC Chapter	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
	111, Visible Emissions		<p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1009B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1010B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1011B	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE1416F	30 TAC Chapter 115, HRVOC Vent Gas	R5722-1	<p>HRVOC Concentration = The vent gas stream has a HRVOC concentration less than 100 ppmv at all times.</p> <p>Max Flow Rate = The vent gas stream has a maximum potential flow rate greater than 100 dry standard cubic feet per hour (ft³/hr).</p> <p>Exempt Date = The vent gas stream is not exempt.</p>
QE1416F	30 TAC Chapter 115, Vent Gas Controls	R5121-1	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
QE1416FB	30 TAC Chapter 115, HRVOC Vent Gas	R5722-1	<p>HRVOC Concentration = The vent gas stream has a HRVOC concentration less than 100 ppmv at all times.</p> <p>Max Flow Rate = The vent gas stream has a maximum potential flow rate greater than 100 dry standard cubic feet per hour (ft³/hr).</p> <p>Exempt Date = The vent gas stream is not exempt.</p>
QE1416FB	30 TAC Chapter 115, Vent Gas Controls	R5121-1	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
QE3418F	30 TAC Chapter 115, HRVOC Vent Gas	R5722-1	<p>HRVOC Concentration = The vent gas stream has a HRVOC concentration less than 100 ppmv at all times.</p> <p>Max Flow Rate = The vent gas stream has a maximum potential flow rate greater than 100 dry standard cubic feet per hour (ft³/hr).</p> <p>Exempt Date = The vent gas stream is not exempt.</p>
QE3418F	30 TAC Chapter 115, Vent Gas Controls	R5121-1	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
QE5802UA	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
QE5802UB	30 TAC Chapter 111, Visible Emissions	R1111-V1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
QEANALYZ2	30 TAC Chapter 115, Vent Gas Controls	R5121-1	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
QEANALYZ4	30 TAC Chapter 115, Vent Gas Controls	R5121-1	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
QEARU	30 TAC Chapter 115, HRVOC Vent Gas	R5722-2	<p>HRVOC Concentration = The vent gas stream has a HRVOC concentration of at least 100 ppmv at some times.</p> <p>Max Flow Rate = The vent gas stream has a maximum potential flow rate greater than 100 dry standard cubic feet per hour (ft³/hr).</p> <p>Vent Gas Stream Control = Vent gas stream is controlled by a flare.</p>
QEARU	30 TAC Chapter 115, Vent Gas Controls	R5121-BF	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = 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.</p> <p>Vent Type = Vent gas stream originates from a synthetic organic chemical manufacturing industry reactor process or distillation operation, as defined in 30 TAC § 115.10.</p>
QEARU	30 TAC Chapter 115, Vent Gas Controls	R5121-FLARE	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Vent gas stream originates from a synthetic organic chemical manufacturing industry reactor process or distillation operation, as defined in 30 TAC § 115.10.</p>
QECAUSTSUM	30 TAC Chapter	R5121-1	Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a

Unit ID	Regulation	Index Number	Basis of Determination*
	115, Vent Gas Controls		<p>control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
QEELAB	30 TAC Chapter 115, Vent Gas Controls	R5121-1	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
QEUNIT	30 TAC Chapter 115, Vent Gas Controls	R5121-1	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
QEUNITEM	30 TAC Chapter 115, HRVOC Vent Gas	R5722-2	<p>HRVOC Concentration = The vent gas stream has a HRVOC concentration of at least 100 ppmv at some times.</p> <p>Max Flow Rate = The vent gas stream has a maximum potential flow rate greater than 100 dry standard cubic feet per hour (ft³/hr).</p> <p>Vent Gas Stream Control = Vent gas stream is controlled by a flare.</p>
QEUNITEM	30 TAC Chapter 115, Vent Gas Controls	R5121-EMACT	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Vent gas stream originates from a synthetic organic chemical manufacturing industry reactor process or distillation operation, as defined in 30 TAC § 115.10.</p>
QEUNITEM	40 CFR Part 63, Subpart YY	63YY-1	Source Type = Polycarbonate production

Unit ID	Regulation	Index Number	Basis of Determination*
QEUNITNNN	30 TAC Chapter 115, Vent Gas Controls	R5121-BF	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = 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.</p> <p>Vent Type = Vent gas stream originates from a synthetic organic chemical manufacturing industry reactor process or distillation operation, as defined in 30 TAC § 115.10.</p>
QEUNITNNN	30 TAC Chapter 115, Vent Gas Controls	R5121-FLARE	<p>Alternate Control Requirement = Alternate control is not used.</p> <p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Control Device Type = Smokeless flare</p> <p>Vent Type = Vent gas stream originates from a synthetic organic chemical manufacturing industry reactor process or distillation operation, as defined in 30 TAC § 115.10.</p>
DGROLEFIN	30 TAC Chapter 115, Degreasing Processes	R5412-1	<p>Solvent Degreasing Machine Type = Cold solvent cleaning machine.</p> <p>Alternate Control Requirement = The TCEQ Executive Director has not approved an alternative control requirement as allowed under 30 TAC § 115.413 or not alternative has been requested.</p> <p>Solvent Sprayed = No solvent is sprayed.</p> <p>Solvent Vapor Pressure = Solvent vapor pressure is less than or equal to 0.6 psia as measured at 100 degrees Fahrenheit.</p> <p>Solvent Heated = The solvent is not heated to a temperature greater than 120° F.</p> <p>Parts Larger than Drainage = No cleaned parts for which the machine is authorized to clean are larger than the internal drainage facility of the machine.</p> <p>Drainage Area = Area is greater than or equal to 16 square inches.</p> <p>Disposal in Enclosed Containers = Waste solvent is properly disposed of in enclosed containers.</p>
QEARU	40 CFR Part 60, Subpart NNN	6oNNN-1	<p>Subpart NNN Chemicals = The distillation unit produces any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate.</p> <p>Total Resource Effectiveness = TRE index value less than 8.0 not from a halogenated vent stream.</p> <p>Construction/Modification Date = After December 30, 1983.</p> <p>TOC Reduction = Compliance is achieved through use of a flare or recovery device.</p> <p>Subpart NNN Control Device = Flare.</p> <p>Vent Type = Distillation unit not discharging vent stream into a vapor recovery system.</p> <p>Distillation Unit Type = Does not qualify for any exemption under § 60.660(c)(1)-(3).</p> <p>Total Design Capacity = 1 gigagram per year or greater.</p> <p>Vent Stream Flow Rate = Flow rate greater than or equal to 0.008 scm/min.</p>
QEARU	40 CFR Part 60, Subpart NNN	6oNNN-2	<p>Subpart NNN Chemicals = The distillation unit produces any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>Total Resource Effectiveness = TRE index value less than 8.0 not from a halogenated vent stream.</p> <p>Construction/Modification Date = After December 30, 1983.</p> <p>TOC Reduction = Compliance is achieved by reducing total organic compound emissions (less methane and ethane) by 98 weight-percent or to a concentration of 20 ppmv dry basis corrected to 3 percent oxygen using a VOC emissions non-flare combustion control device.</p> <p>Subpart NNN Control Device = Boiler or process heater design heat input capacity greater than or equal to 44 MW (150 MMBtu/hr).</p> <p>Vent Type = Distillation unit not discharging vent stream into a vapor recovery system.</p> <p>Distillation Unit Type = Does not qualify for any exemption under § 60.660(c)(1)-(3).</p> <p>Total Design Capacity = 1 gigagram per year or greater.</p> <p>Vent Stream Flow Rate = Flow rate greater than or equal to 0.008 scm/min.</p>
QEUNITNNN	40 CFR Part 60, Subpart NNN	60NNN-1	<p>Subpart NNN Chemicals = The distillation unit produces any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate.</p> <p>Total Resource Effectiveness = TRE index value less than 8.0 not from a halogenated vent stream.</p> <p>Construction/Modification Date = After December 30, 1983.</p> <p>TOC Reduction = Compliance is achieved through use of a flare or recovery device.</p> <p>Subpart NNN Control Device = Flare.</p> <p>Vent Type = Distillation unit not discharging vent stream into a vapor recovery system.</p> <p>Distillation Unit Type = Does not qualify for any exemption under § 60.660(c)(1)-(3).</p> <p>Total Design Capacity = 1 gigagram per year or greater.</p> <p>Vent Stream Flow Rate = Flow rate greater than or equal to 0.008 scm/min.</p>
QEUNITNNN	40 CFR Part 60, Subpart NNN	60NNN-2	<p>Subpart NNN Chemicals = The distillation unit produces any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate.</p> <p>Total Resource Effectiveness = TRE index value less than 8.0 not from a halogenated vent stream.</p> <p>Construction/Modification Date = After December 30, 1983.</p> <p>TOC Reduction = Compliance is achieved by reducing total organic compound emissions (less methane and ethane) by 98 weight-percent or to a concentration of 20 ppmv dry basis corrected to 3 percent oxygen using a VOC emissions non-flare combustion control device.</p> <p>Subpart NNN Control Device = Boiler or process heater design heat input capacity greater than or equal to 44 MW (150 MMBtu/hr).</p> <p>Vent Type = Distillation unit not discharging vent stream into a vapor recovery system.</p> <p>Distillation Unit Type = Does not qualify for any exemption under § 60.660(c)(1)-(3).</p> <p>Total Design Capacity = 1 gigagram per year or greater.</p> <p>Vent Stream Flow Rate = Flow rate greater than or equal to 0.008 scm/min.</p>
QE8001A	30 TAC Chapter 115, Industrial Wastewater	R5142-1	<p>Petroleum Refinery = The affected source category is not a petroleum refinery.</p> <p>Wastewater Component Type = A wastewater component that is exempted from the control requirements of 30 TAC § 115.142 because it handles only exempted wastewater streams under 30 TAC § 115.147(2).</p> <p>Alternate Control Requirement = An alternate control requirement (ACR) or exemption criteria in accordance with 30 TAC § 115.910 is not used.</p> <p>90% Overall Control Option = The unit is complying with the control requirements of 30 TAC § 115.142.</p> <p>Safety Hazard Exemption = No safety hazard exemption has been requested or none has been approved.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
QEZIMPRO	30 TAC Chapter 115, Industrial Wastewater	R5142-2	<p>Petroleum Refinery = The affected source category is not a petroleum refinery.</p> <p>Wastewater Component Type = The component is not a wet weather retention basin, exempted by §115.147(2), not a biotreatment unit.</p> <p>Alternate Control Requirement = An alternate control requirement (ACR) or exemption criteria in accordance with 30 TAC § 115.910 is not used.</p> <p>Roof or Seal Type = The wastewater component does not have a floating roof or internal floating roof.</p> <p>Control Devices = Vapor combustor.</p> <p>90% Overall Control Option = The unit is complying with the control requirements of 30 TAC § 115.142.</p> <p>Monitoring Type = The monitoring requirements of 30 TAC §§ 115.144(3)(A) - (H) are being used.</p> <p>Safety Hazard Exemption = No safety hazard exemption has been requested or none has been approved.</p>
QEZIMPSUMP	30 TAC Chapter 115, Industrial Wastewater	R5142-1	<p>Petroleum Refinery = The affected source category is not a petroleum refinery.</p> <p>Wastewater Component Type = A wastewater component that is exempted from the control requirements of 30 TAC § 115.142 because it handles only exempted wastewater streams under 30 TAC § 115.147(2).</p> <p>Alternate Control Requirement = An alternate control requirement (ACR) or exemption criteria in accordance with 30 TAC § 115.910 is not used.</p> <p>90% Overall Control Option = The unit is complying with the control requirements of 30 TAC § 115.142.</p> <p>Safety Hazard Exemption = No safety hazard exemption has been requested or none has been approved.</p>
QEUNIT	40 CFR Part 60, Subpart RRR	60RRR-NSPS	<p>Chemicals Listed in 40 CFR § 60.707 = The affected facility is part of a process unit that produces chemicals listed in 40 CFR § 60.707 as a product, co-product, by product, or intermediate.</p> <p>Construction/Modification Date = After June 29, 1990.</p> <p>Affected Facility Type = Combination of a reactor process and the recovery system into which its vent stream is discharged.</p> <p>Subject to Title 40 CFR Part 60, Subpart DDD = The reactor process is not subject to the provisions of Title 40 CFR Part 60, Subpart DDD.</p> <p>Subject to Title 40 CFR Part 60, Subpart NNN = The vent stream is routed to a distillation unit subject to Title 40 CFR Part 60, Subpart NNN and has no other releases to the air except for a pressure relief valve.</p>

* - 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.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html

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

www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html

The status of air permits and applications and a link to the Air Permits Remote Document Server is located at the following Web site:

www.tceq.texas.gov/permitting/air/nav/air_status_permits.html

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX752GHG	Issuance Date: 03/14/2013
PSD Permit No.: PSDTX752M5	Issuance Date: 01/23/2013
Nonattainment (NA) Permits	
NA Permit No.: N162	Issuance Date: 01/23/2013
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 18978	Issuance Date: 01/23/2013
Authorization No.: 83822	Issuance Date: 02/08/2013
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.412	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: 106.478	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000

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 sandblasting 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.: DGROLEFIN	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Degreasing Processes	SOP Index No.: R5412-1
Pollutant: VOC	Main Standard: § 115.412(1)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Monthly	
Averaging Period: n/a	
Deviation Limit: Any monitoring data which indicates that the cold cleaner is not in compliance with the applicable requirements of 30 TAC 115.412(1)(A)-(F) shall be considered and reported as a deviation.	
<p>Basis of monitoring: The monitoring option to cover cold cleaner or the open-top vapor cleaner was included in the EPA "Periodic Monitoring Technical Reference Document" (April 1999) to monitor VOC sources. In addition to covering the cleaner records of monthly inspections of equipment is an effective way to ensure that the system is operating in accordance with its design.</p>	

Unit/Group/Process Information	
ID No.: QE1001B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15 % over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through historical data that opacity and particulate matter standards are consistently met when ethylene cracking furnaces combust a mixture of natural gas and process recycle. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's Compliance Assurance Monitoring (CAM) Technical Guidance Document (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to EPA Reference Method 22 procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1002B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15 % over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through historical data that opacity and particulate matter standards are consistently met when ethylene cracking furnaces combust a mixture of natural gas and process recycle. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's Compliance Assurance Monitoring (CAM) Technical Guidance Document (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to EPA Reference Method 22 procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1003B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15 % over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through historical data that opacity and particulate matter standards are consistently met when ethylene cracking furnaces combust a mixture of natural gas and process recycle. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's Compliance Assurance Monitoring (CAM) Technical Guidance Document (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to EPA Reference Method 22 procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1004B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15 % over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through historical data that opacity and particulate matter standards are consistently met when ethylene cracking furnaces combust a mixture of natural gas and process recycle. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's Compliance Assurance Monitoring (CAM) Technical Guidance Document (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to EPA Reference Method 22 procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1005B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15 % over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through historical data that opacity and particulate matter standards are consistently met when ethylene cracking furnaces combust a mixture of natural gas and process recycle. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's Compliance Assurance Monitoring (CAM) Technical Guidance Document (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to EPA Reference Method 22 procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1006B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15 % over a six-minute period.	
<p>Basis of monitoring:</p> <p>Industry has demonstrated through historical data that opacity and particulate matter standards are consistently met when ethylene cracking furnaces combust a mixture of natural gas and process recycle. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's Compliance Assurance Monitoring (CAM) Technical Guidance Document (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to EPA Reference Method 22 procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1007B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15 % over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through historical data that opacity and particulate matter standards are consistently met when ethylene cracking furnaces combust a mixture of natural gas and process recycle. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's Compliance Assurance Monitoring (CAM) Technical Guidance Document (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to EPA Reference Method 22's procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1008B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15 % over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through historical data that opacity and particulate matter standards are consistently met when ethylene cracking furnaces combust a mixture of natural gas and process recycle. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's Compliance Assurance Monitoring (CAM) Technical Guidance Document (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to EPA Reference Method 22 procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1009B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15 % over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through historical data that opacity and particulate matter standards are consistently met when ethylene cracking furnaces combust a mixture of natural gas and process recycle. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's Compliance Assurance Monitoring (CAM) Technical Guidance Document (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to EPA Reference Method 22 procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1010B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15% over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.</p>	

Unit/Group/Process Information	
ID No.: QE1011B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: It is a deviation if alternate fuel is fired or opacity is greater than 15% over a six-minute period.	
<p>Basis of monitoring: Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.</p>	

Unit/Group/Process Information	
ID No.: QE5802UA	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: It is a deviation if an alternate fuel is fired either alone or in combination with the specified gas.	
<p>Basis of monitoring: Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.</p>	

Unit/Group/Process Information	
ID No.: QE5802UB	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-V1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually or at any time an alternate fuel is used	
Averaging Period: n/a	
Deviation Limit: It is a deviation if an alternate fuel is fired either alone or in combination with the specified gas.	
<p>Basis of monitoring: Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only. If the emission unit fires a different fuel for more than 24 hours, the permit holder may elect to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.</p>	

Compliance Assurance Monitoring (CAM):

Compliance Assurance Monitoring (CAM) is a federal monitoring program established under Title 40 Code of Federal Regulations Part 64 (40 CFR Part 64).

Emission units are subject to CAM requirements if they meet the following criteria:

1. the emission unit is subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement;
2. the emission unit uses a control device to achieve compliance with the emission limitation or standard specified in the applicable requirement; and
3. the emission unit has the pre-control device potential to emit greater than or equal to the amount in tons per year for a site to be classified as a major source.

The following table(s) identify the emission unit(s) that are subject to CAM:

Unit/Group/Process Information	
ID No.: QEARU	
Control Device ID No.: QE5802UA	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Control Device ID No.: QE5802UB	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Control Device ID No.: QEFURN	Control Device Type: Other Control Device Type
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-BF
Pollutant: VOC	Main Standard: § 115.121(a)(2)
Monitoring Information	
Indicator: Period of Operation	
Minimum Frequency: n/a	
Averaging Period: n/a	
Deviation Limit: All periods of operation that are not recorded.	
Basis of CAM: A common way to control VOC emissions is to route emissions to a boiler or process heater with a design heat input capacity of 44 MW or greater with minimum temperatures of 1100 °C and residence times greater than one second. Boilers and process heaters with the stated design have demonstrated to meet 98% reduction efficiency; therefore, it is only necessary to document the period of operation of the control equipment. Additionally, in the October, 21, 1983 preamble to 40 CFR Part 60, Subpart III, (48 FR 48945), the EPA determined that installing a steam generating unit, with a design heat input capacity of 44 MW or greater, to control VOC emissions, is an acceptable means of demonstrating compliance with 40 CFR Part 60, Subpart III and waived the requirement for a performance test on such devices. Monitoring the period of operation of a boiler/process heater greater than 44 MW is commonly required in federal rules, including: 40 CFR Part 60, Subparts III and NNN; 40 CFR Part 61, Subpart BB; 40 CFR Part 63, Subpart G.	

Unit/Group/Process Information	
ID No.: QEARU	
Control Device ID No.: QE3050B	Control Device Type: Flare
Control Device ID No.: QE8050B	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-FLARE
Pollutant: VOC	Main Standard: § 115.121(a)(2)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No Pilot Flame	
Basis of CAM: 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.: QEARU	
Control Device ID No.: QE3050B	Control Device Type: Flare
Control Device ID No.: QE8050B	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, HRVOC Vent Gas	SOP Index No.: R5722-2
Pollutant: HIGHLY REACTIVE VOC	Main Standard: § 115.722(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame.	
Basis of CAM: 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.: QEARU	
Control Device ID No.: QE5802UA	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Control Device ID No.: QE5802UB	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Control Device ID No.: QEFURN	Control Device Type: Other Control Device Type
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart NNN	SOP Index No.: 60NNN-2
Pollutant: VOC/TOC	Main Standard: § 60.662(a)
Monitoring Information	
Indicator: Period of Operation	
Minimum Frequency: n/a	
Averaging Period: n/a	
Deviation Limit: All periods of operation of the steam generating units and process heaters that are not recorded is a deviation.	
<p>Basis of CAM: A common way to control VOC emissions is to route emissions to a boiler or process heater with a design heat input capacity of 44 MW or greater with minimum temperatures of 1100 °C and residence times greater than one second. Boilers and process heaters with the stated design have demonstrated to meet 98% reduction efficiency; therefore, it is only necessary to document the period of operation of the control equipment. Additionally, in the October, 21, 1983 preamble to 40 CFR Part 60, Subpart III, (48 FR 48945), the EPA determined that installing a steam generating unit, with a design heat input capacity of 44 MW or greater, to control VOC emissions, is an acceptable means of demonstrating compliance with 40 CFR Part 60, Subpart III and waived the requirement for a performance test on such devices. Monitoring the period of operation of a boiler/process heater greater than 44 MW is commonly required in federal rules, including: 40 CFR Part 60, Subparts III and NNN; 40 CFR Part 61, Subpart BB; 40 CFR Part 63, Subpart G.</p>	

Unit/Group/Process Information	
ID No.: QEUNITEM	
Control Device ID No.: QE8050B	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-EMACT
Pollutant: VOC	Main Standard: § 115.121(a)(2)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame.	
Basis of CAM: 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.: QEUNITEM	
Control Device ID No.: QE8050B	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, HRVOC Vent Gas	SOP Index No.: R5722-2
Pollutant: HIGHLY REACTIVE VOC	Main Standard: § 115.722(c)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame.	
Basis of CAM: 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.: QEUNITNNN	
Control Device ID No.: QE5802UA	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Control Device ID No.: QE5802UB	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Control Device ID No.: QEFURN	Control Device Type: Other Control Device Type
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-BF
Pollutant: VOC	Main Standard: § 115.121(a)(2)
Monitoring Information	
Indicator: Period of Operation	
Minimum Frequency: n/a	
Averaging Period: n/a	
Deviation Limit: Any period of operation that is not recorded is a deviation.	
<p>Basis of CAM: A common way to control VOC emissions is to route emissions to a boiler or process heater with a design heat input capacity of 44 MW or greater with minimum temperatures of 1100 °C and residence times greater than one second. Boilers and process heaters with the stated design have demonstrated to meet 98% reduction efficiency; therefore, it is only necessary to document the period of operation of the control equipment. Additionally, in the October, 21, 1983 preamble to 40 CFR Part 60, Subpart III, (48 FR 48945), the EPA determined that installing a steam generating unit, with a design heat input capacity of 44 MW or greater, to control VOC emissions, is an acceptable means of demonstrating compliance with 40 CFR Part 60, Subpart III and waived the requirement for a performance test on such devices. Monitoring the period of operation of a boiler/process heater greater than 44 MW is commonly required in federal rules, including: 40 CFR Part 60, Subparts III and NNN; 40 CFR Part 61, Subpart BB; 40 CFR Part 63, Subpart G.</p>	

Unit/Group/Process Information	
ID No.: QEUNITNNN	
Control Device ID No.: QE3050B	Control Device Type: Flare
Control Device ID No.: QE8050B	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-FLARE
Pollutant: VOC	Main Standard: § 115.121(a)(2)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame.	
Basis of CAM: 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.: QEUNITNNN	
Control Device ID No.: QE5802A	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Control Device ID No.: QE5802B	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Control Device ID No.: QEFURN	Control Device Type: Other Control Device Type
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart NNN	SOP Index No.: 60NNN-2
Pollutant: VOC/TOC	Main Standard: § 60.662(a)
Monitoring Information	
Indicator: Period of Operation	
Minimum Frequency: n/a	
Averaging Period: n/a	
Deviation Limit: Any period of operation that is not recorded is a deviation.	
<p>Basis of CAM: A common way to control VOC emissions is to route emissions to a boiler or process heater with a design heat input capacity of 44 MW or greater with minimum temperatures of 1100 °C and residence times greater than one second. Boilers and process heaters with the stated design have demonstrated to meet 98% reduction efficiency; therefore, it is only necessary to document the period of operation of the control equipment. Additionally, in the October, 21, 1983 preamble to 40 CFR Part 60, Subpart III, (48 FR 48945), the EPA determined that installing a steam generating unit, with a design heat input capacity of 44 MW or greater, to control VOC emissions, is an acceptable means of demonstrating compliance with 40 CFR Part 60, Subpart III and waived the requirement for a performance test on such devices. Monitoring the period of operation of a boiler/process heater greater than 44 MW is commonly required in federal rules, including: 40 CFR Part 60, Subparts III and NNN; 40 CFR Part 61, Subpart BB; 40 CFR Part 63, Subpart G.</p>	

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 Semicheical 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/Depainting 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