

Statement of Basis of the Federal Operating Permit

Eastman Chemical Company

Site Name: Eastman Chemical Company Texas Operations

Area Name: C3 - Texanol

Physical Location: 300 Kodak Boulevard

Nearest City: Longview

County: Harrison

Permit Number: O1977

Project Type: Minor Revision

Standard Industrial Classification (SIC) Code: 2869

SIC Name: Industrial Organic Chemicals

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

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

Prepared on: December 2, 2015

Operating Permit Basis of Determination

Description of Revisions

Minor revision project deletes MACT FFFF applicability to 27 units that are listed as Group 2 continuous process vents in SOP O1977 based on applicant's determination that these units contain < 0.005 wt % HAP. The minor revision also adds MACT G applicability to OX016WW3 unit, MACT FFFF applicability to OX016R6 unit and NSPS NNN applicability to OX016D28 unit. Sitewide terms and conditions and NSR/PBR preconstruction authorizations are revised based on an OP-REQ1 form submittal.

Permit Area Process Description

The application area includes five plants: the Texanol Plant, the Mixed Esters Plant, the Nitriles/Ketone Plant, the Butyric Acid Plant and the Propionic Acid Plant.

The Texanol Plant manufactures C8 - C16 alcohols and esters from butyraldehydes, butyric acids and butanols. The process steps are raw materials storage, reaction, separation, and product storage. Emission units include reactors, process tanks, distillation units and storage tanks. There are also fugitive equipment leaks, heat exchanger leaks and wastewater emissions. The emissions generated are volatile organic compounds (VOCs).

The Mixed Esters Plant manufactures ethyl acetate, isobutyl acetate, and isobutyl isobutyrate from acetaldehyde, ethanol, and butyraldehydes. The major process steps are raw materials storage, reaction, separation and product storage. Emission units include reactors, process tanks, distillation units and storage tanks. There are fugitive equipment leaks, heat exchanger leaks and wastewater emissions. The emissions generated are VOC, hazardous air pollutants (HAPs) and chlorine.

The Nitriles/Ketones Plant produces butyronitriles from butyric acids and ammonia; or alternately it produces ketones from acetic, butyric and other organic acids. The major process steps are raw materials storage, reaction, separation and product storage. Emission units are reactors, process heaters, process tanks, distillation units and storage tanks. There are fugitive equipment leaks, heat exchanger leaks and wastewater emissions. The control devices are a scrubber and a flare. The emissions generated are VOCs, ammonia (NH₃), particulate matter (PM), carbon monoxide (CO), sulfur oxides (SO_x) and nitrogen oxides (NO_x).

The Butyric Acid Plant manufactures butyric acid from butyraldehyde and oxygen. Process steps include reaction, separation and product storage. The emission units are reactors, process tanks, distillation units and storage tanks. There are fugitive equipment leaks, heat exchanger leaks and wastewater emissions. The control devices are a scrubber and a catalytic oxidizer. The emissions generated are VOCs, PM, CO, SO_x and NO_x.

The Propionic Acid Plant makes propionic acid from propionaldehyde and oxygen. The process includes reaction, separation and product storage. Emissions are from reactors, distillation units, process tanks and storage tanks. There are fugitive equipment leaks, heat exchanger leaks and wastewater emissions. The control devices are a scrubber and a catalytic oxidizer. The emissions generated are VOCs, HAPs, PM, CO, SO_x and NO_x.

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: O1436, O1968, O1970, O1971, O1972, O1973, O1974, O1975, O1976, O1978, O1979, O1981, O1982

Major Source Pollutants

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

Major Pollutants	VOC, SO ₂ , PM, NO _X , HAPS, CO, GHG
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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

General Terms and Conditions

The General Terms and Conditions are the same and appear in all permits. The first paragraph lists the specific citations for 30 TAC Chapter 122 requirements that apply to all Title V permit holders. The second paragraph describes the requirements for record retention. The third paragraph provides details for voiding the permit, if applicable. The fourth paragraph states that the permit holder shall comply with the requirements of 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit. The fifth paragraph provides details on submission of reports required by the permit.

Special Terms and Conditions

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

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

Attachments

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

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

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

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

New Source Review Authorization References. All activities which are related to emissions in the state of Texas must have a NSR authorization prior to beginning construction. This section lists all units in the permit and the NSR authorization that allowed the unit to be constructed or modified. Units that do not have unit specific applicable requirements other than the NSR authorization do not need to be listed in this attachment. While

NSR permits are not physically a part of the Title V permit, they are legally incorporated into the Title V permit by reference. Those NSR permits whose emissions exceed certain PSD/NA thresholds must also undergo a Federal review of federally regulated pollutants in addition to review for state regulated pollutants.

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

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

Appendix A

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

Stationary vents subject to 30 TAC Chapter 111, Subchapter A, § 111.111(a)(1)(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 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)
Prevention of Significant Deterioration (PSD)	No
Nonattainment New Source Review (NNSR)	No
Minor NSR	Yes
40 CFR Part 60 - New Source Performance Standards	Yes
40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)	No
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	No
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*	Changes and Exceptions to DSS**
OX016WW3	40 CFR Part 63, Subpart G	63G-0005	UNIT TYPE = EMISSION UNIT. UNIT IS A GROUP 1 WASTEWATER STREAM THAT IS SENT VIA HARD PIPING TO A TREATMENT PROCESS (PROD20DSS UNIT INCLUDED IN FOP O1982).	The main standard, related standards, monitoring/testing, recordkeeping, and reporting rule citations were determined from an analysis of the rule text and the basis of determination.
OX011ES3	40 CFR Part 63, Subpart DDDDD	63DDDDD-0001	CONSTRUCTION/RECONSTRUCTION DATE = Construction or reconstruction began on or before June 4, 2010. ANNUAL CAPACITY FACTOR = FEDERALLY ENFORCEABLE ANNUAL CAPACITY FACTOR OF 10% OR LESS FUEL TYPE = NATURAL GAS HEAT INPUT CAPACITY = RATED HEAT INPUT CAPACITY OF 10 MMBTU/HR OR LESS	
OX011ES4	40 CFR Part 63, Subpart DDDDD	63DDDDD-0001	CONSTRUCTION/RECONSTRUCTION DATE = Construction or reconstruction began on or before June 4, 2010. ANNUAL CAPACITY FACTOR = FEDERALLY ENFORCEABLE ANNUAL CAPACITY FACTOR OF 10% OR LESS FUEL TYPE = NATURAL GAS HEAT INPUT CAPACITY = RATED HEAT INPUT CAPACITY OF 10 MMBTU/HR OR LESS	
OX011ES5	40 CFR Part 63, Subpart DDDDD	63DDDDD-0001	CONSTRUCTION/RECONSTRUCTION DATE = Construction or reconstruction began on or before June 4, 2010. ANNUAL CAPACITY FACTOR = FEDERALLY ENFORCEABLE ANNUAL CAPACITY FACTOR OF 10% OR LESS FUEL TYPE = NATURAL GAS HEAT INPUT CAPACITY = RATED HEAT INPUT CAPACITY OF 10 MMBTU/HR OR LESS	
OX011FL1C	30 TAC Chapter 111, Visible Emissions	R1111-0001	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. Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.	
OX011FL1C	40 CFR Part 60, Subpart A	60A-0001	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 = Non-assisted Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec)	
OX048FL1	30 TAC Chapter 111, Visible Emissions	R1111-0002	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. Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.	
OX011FG3	40 CFR Part 60, Subpart VV	60VV-0005	Closed Vent (or Vapor Collection) Systems = The fugitive unit does not contain closed vent or vapor collection systems. Compressors = The fugitive unit does not contain compressors. Enclosed Combustion Device = The fugitive unit does not contain enclosed combustion devices. Flare = The fugitive unit does not contain flares.	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>Produces Chemicals = The fugitive unit is part of a facility that produces as an intermediate or final product one or more of the chemicals listed in 40 CFR § 60.489.</p> <p>Pumps in Heavy Liquid Service = The fugitive unit contains pumps in heavy liquid service.</p> <p>Sampling Connection Systems = The fugitive unit contains sampling connection systems.</p> <p>Valves in Gas/Vapor or Light Liquid Service = The fugitive unit contains valves in gas/vapor or light liquid service.</p> <p>Vapor Recovery System = The fugitive unit does not contain vapor recovery systems.</p> <p>Affected Facility = The fugitive unit is part of a facility that is an affected facility as defined in 40 CFR § 60.480(a)(2).</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for pumps in heavy liquid service.</p> <p>Vacuum Service = The fugitive unit does not contain equipment in vacuum service.</p> <p>Construction/Modification Date = After January 5, 1981 and on or before November 7, 2006.</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for valves in gas/vapor or light liquid service.</p> <p>Complying with 40 CFR § 60.482-5 = Sampling connection systems are complying with § 60.482-5.</p> <p>Complying with 40 CFR § 60.482-8 = Pumps in heavy liquid service are complying with § 60.482-8.</p> <p>Pumps in Light Liquid Service = The fugitive unit contains pumps in light liquid service.</p> <p>Complying with 40 CFR § 60.482-7 = Valves in gas/vapor or light liquid service are complying with § 60.482-7.</p> <p>Design Capacity = Site with a design capacity is greater than or equal to 1,000 Mg/yr.</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for pumps in light liquid service.</p> <p>Flanges and Other Connectors = The fugitive unit contains flanges and other connectors.</p> <p>Open-ended Valves or Lines = The fugitive unit contains open-ended valves or lines.</p> <p>Pressure Relief Devices in Gas/Vapor Service = The fugitive unit contains pressure relief devices in gas/vapor service.</p> <p>Valves in Heavy Liquid Service = The fugitive unit contains valves in heavy liquid service.</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for open-ended valves or lines.</p> <p>Produces Heavy Liquid Chemicals = The facility produces chemicals other than or in addition to heavy liquid chemicals only from heavy liquid feed or raw materials.</p> <p>Beverage Alcohol Production = The facility does not produce only beverage alcohol.</p> <p>Complying with 40 CFR § 60.482-2 = Pumps in light liquid service are complying with § 60.482-2.</p> <p>Complying with 40 CFR § 60.482-6 = Open-ended valves or lines are complying with § 60.482-6.</p> <p>Complying with 40 CFR § 60.482-8 = Valves in heavy liquid service are complying with § 60.482-8.</p> <p>Equipment in VOC Service = The facility contains equipment designed to operate in VOC service.</p>	
OX015FG2	40 CFR Part 63, Subpart FFFF	63FFFF-0002	Existing Source = Fugitive unit contains equipment in an existing Miscellaneous Chemical Processing Unit.	
OX016FG1	40 CFR Part 60, Subpart VV	60VV-0006	<p>Closed Vent (or Vapor Collection) Systems = The fugitive unit does not contain closed vent or vapor collection systems.</p> <p>Compressors = The fugitive unit does not contain compressors.</p> <p>Enclosed Combustion Device = The fugitive unit does not contain enclosed combustion devices.</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>Flare = The fugitive unit does not contain flares.</p> <p>Produces Chemicals = The fugitive unit is part of a facility that produces as an intermediate or final product one or more of the chemicals listed in 40 CFR § 60.489.</p> <p>Pumps in Heavy Liquid Service = The fugitive unit contains pumps in heavy liquid service.</p> <p>Sampling Connection Systems = The fugitive unit contains sampling connection systems.</p> <p>Valves in Gas/Vapor or Light Liquid Service = The fugitive unit contains valves in gas/vapor or light liquid service.</p> <p>Vapor Recovery System = The fugitive unit does not contain vapor recovery systems.</p> <p>Affected Facility = The fugitive unit is part of a facility that is an affected facility as defined in 40 CFR § 60.480(a)(2).</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for pumps in heavy liquid service.</p> <p>Vacuum Service = The fugitive unit does not contain equipment in vacuum service.</p> <p>Construction/Modification Date = After January 5, 1981 and on or before November 7, 2006.</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for valves in gas/vapor or light liquid service.</p> <p>Complying with 40 CFR § 60.482-5 = Sampling connection systems are complying with § 60.482-5.</p> <p>Complying with 40 CFR § 60.482-8 = Pumps in heavy liquid service are complying with § 60.482-8.</p> <p>Pumps in Light Liquid Service = The fugitive unit contains pumps in light liquid service.</p> <p>Complying with 40 CFR § 60.482-7 = Valves in gas/vapor or light liquid service are complying with § 60.482-7.</p> <p>Design Capacity = Site with a design capacity is greater than or equal to 1,000 Mg/yr.</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for pumps in light liquid service.</p> <p>Flanges and Other Connectors = The fugitive unit contains flanges and other connectors.</p> <p>Open-ended Valves or Lines = The fugitive unit contains open-ended valves or lines.</p> <p>Pressure Relief Devices in Gas/Vapor Service = The fugitive unit contains pressure relief devices in gas/vapor service.</p> <p>Valves in Heavy Liquid Service = The fugitive unit contains valves in heavy liquid service.</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for open-ended valves or lines.</p> <p>Produces Heavy Liquid Chemicals = The facility produces chemicals other than or in addition to heavy liquid chemicals only from heavy liquid feed or raw materials.</p> <p>Beverage Alcohol Production = The facility does not produce only beverage alcohol.</p> <p>Complying with 40 CFR § 60.482-2 = Pumps in light liquid service are complying with § 60.482-2.</p> <p>Complying with 40 CFR § 60.482-6 = Open-ended valves or lines are complying with § 60.482-6.</p> <p>Complying with 40 CFR § 60.482-8 = Valves in heavy liquid service are complying with § 60.482-8.</p> <p>Equipment in VOC Service = The facility contains equipment designed to operate in VOC service.</p>	
OX016FG3	40 CFR Part 60, Subpart VV	60VV-0007	<p>Closed Vent (or Vapor Collection) Systems = The fugitive unit does not contain closed vent or vapor collection systems.</p> <p>Compressors = The fugitive unit does not contain compressors.</p> <p>Enclosed Combustion Device = The fugitive unit does not contain enclosed combustion devices.</p> <p>Flare = The fugitive unit does not contain flares.</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>Produces Chemicals = The fugitive unit is part of a facility that produces as an intermediate or final product one or more of the chemicals listed in 40 CFR § 60.489.</p> <p>Pumps in Heavy Liquid Service = The fugitive unit does not contain pumps in heavy liquid service.</p> <p>Sampling Connection Systems = The fugitive unit contains sampling connection systems.</p> <p>Valves in Gas/Vapor or Light Liquid Service = The fugitive unit contains valves in gas/vapor or light liquid service.</p> <p>Vapor Recovery System = The fugitive unit does not contain vapor recovery systems.</p> <p>Affected Facility = The fugitive unit is part of a facility that is an affected facility as defined in 40 CFR § 60.480(a)(2).</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for sampling connection systems.</p> <p>Vacuum Service = The fugitive unit does not contain equipment in vacuum service.</p> <p>Construction/Modification Date = After January 5, 1981 and on or before November 7, 2006.</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for valves in gas/vapor or light liquid service.</p> <p>Complying with 40 CFR § 60.482-5 = Sampling connection systems are complying with § 60.482-5.</p> <p>Pumps in Light Liquid Service = The fugitive unit contains pumps in light liquid service.</p> <p>Complying with 40 CFR § 60.482-7 = Valves in gas/vapor or light liquid service are complying with § 60.482-7.</p> <p>Design Capacity = Site with a design capacity is greater than or equal to 1,000 Mg/yr.</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for pumps in light liquid service.</p> <p>Flanges and Other Connectors = The fugitive unit contains flanges and other connectors.</p> <p>Open-ended Valves or Lines = The fugitive unit contains open-ended valves or lines.</p> <p>Pressure Relief Devices in Gas/Vapor Service = The fugitive unit contains pressure relief devices in gas/vapor service.</p> <p>Valves in Heavy Liquid Service = The fugitive unit does not contain valves in heavy liquid service.</p> <p>Equivalent Emission Limitation = No equivalent emission limitation is used for open-ended valves or lines.</p> <p>Produces Heavy Liquid Chemicals = The facility produces chemicals other than or in addition to heavy liquid chemicals only from heavy liquid feed or raw materials.</p> <p>Beverage Alcohol Production = The facility does not produce only beverage alcohol.</p> <p>Complying with 40 CFR § 60.482-2 = Pumps in light liquid service are complying with § 60.482-2.</p> <p>Complying with 40 CFR § 60.482-6 = Open-ended valves or lines are complying with § 60.482-6.</p> <p>Complying with 40 CFR § 60.482-8 = Flanges and other connectors are complying with § 60.482-8.</p> <p>Equipment in VOC Service = The facility contains equipment designed to operate in VOC service.</p>	
OX016FG3	40 CFR Part 63, Subpart H	63H-0007	<p>ANY (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT</p> <p>ANY (OPEN-ENDED VALVES OR LINES) = COMPONENT PRESENT</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 NOT PRESENT</p> <p>LIGHT LIQUID SERVICE (PUMPS) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (AGITATORS) = COMPONENT NOT PRESENT</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>HEAVY LIQUID SERVICE (OPEN-ENDED VALVES OR LINES) = COMPONENT NOT PRESENT</p> <p>HEAVY LIQUID SERVICE (PUMPS) = COMPONENT NOT 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>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 DOES NOT OPT 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 NOT 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 NOT PRESENT</p> <p>HEAVY LIQUID SERVICE (VALVES) = COMPONENT NOT PRESENT</p> <p>LESS THAN 300 OPERATING HOURS = THE FUGITIVE UNIT DOES NOT CONTAIN 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 = NONE 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 DOES NOT OPT 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 NOT PRESENT</p> <p>GAS/VAPOR OR LIGHT LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT NOT PRESENT</p> <p>LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (CONNECTORS) = COMPONENT NOT PRESENT</p> <p>HEAVY LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT NOT PRESENT</p> <p>ANY (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT</p> <p>HEAVY LIQUID SERVICE (SAMPLING CONNECTION SYSTEMS) = COMPONENT NOT PRESENT</p>	
OX011ES3	30 TAC Chapter 111, Visible Emissions	R1111-0003	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Annual ACF = Annual average capacity factor is less than or equal to 30% as reported to the Federal Power</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>Commission for the calendar year 1974.</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 = On or before January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is less than 100,000 actual cubic feet per minute.</p>	
OX011ES4	30 TAC Chapter 111, Visible Emissions	R1111-0003	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Annual ACF = Annual average capacity factor is less than or equal to 30% as reported to the Federal Power Commission for the calendar year 1974.</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 = On or before January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is less than 100,000 actual cubic feet per minute.</p>	
OX011R1	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX011R2	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX011R3	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX011SB2	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX015D1	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX015D2	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX015D503	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX015D513	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX015D514	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
OX015R1	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX015R501	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX015R503	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX015R505	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX015R508	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX015R509	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX015RT507	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX015RT508	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX015RT584	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX016D17	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX016D19	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX016D22	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX016D25	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX016D26	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX016D28	40 CFR Part 63, Subpart FFFF	63FFFF-0005	Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1). Recovery Device = The TRE index is maintained without a recovery device.	
OX016D300	40 CFR Part 63, Subpart G	63G-0001	Alternate Monitoring Parameters = The EPA Administrator has not approved alternate monitoring parameters or alternate monitoring parameters are not used. Control Device = Catalytic incinerator.	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>Overlap = Title 40 CFR Part 60, Subpart NNN</p> <p>Group 1 = The process vent meets the definition of a Group 1 process vent.</p> <p>Continuous Monitoring = Complying with the continuous monitoring requirements of 40 CFR §§ 63.114, 63.117, and 63.118.</p> <p>Halogenated = Vent stream is not halogenated.</p> <p>By-pass Lines = The vent system contains by-pass lines that can divert the vent stream from the control device.</p> <p>Flow Indicator = A flow indicator is installed and operated at the entrance of the by-pass line.</p> <p>Performance Test = A performance test was conducted for determining compliance with a regulation promulgated by the EPA using the same methods specified in Subpart G and either no process changes have been made, or the results reliably indicate compliance.</p>	
OX016D301	40 CFR Part 63, Subpart G	63G-0002	<p>Alternate Monitoring Parameters = The EPA Administrator has not approved alternate monitoring parameters or alternate monitoring parameters are not used.</p> <p>Control Device = Catalytic incinerator.</p> <p>Overlap = Title 40 CFR Part 60, Subpart NNN</p> <p>Group 1 = The process vent meets the definition of a Group 1 process vent.</p> <p>Continuous Monitoring = Complying with the continuous monitoring requirements of 40 CFR §§ 63.114, 63.117, and 63.118.</p> <p>Halogenated = Vent stream is not halogenated.</p> <p>By-pass Lines = The vent system contains by-pass lines that can divert the vent stream from the control device.</p> <p>Flow Indicator = A flow indicator is installed and operated at the entrance of the by-pass line.</p> <p>Performance Test = A performance test was conducted for determining compliance with a regulation promulgated by the EPA using the same methods specified in Subpart G and either no process changes have been made, or the results reliably indicate compliance.</p>	
OX016D302	40 CFR Part 63, Subpart G	63G-0003	<p>Alternate Monitoring Parameters = The EPA Administrator has not approved alternate monitoring parameters or alternate monitoring parameters are not used.</p> <p>Control Device = Catalytic incinerator.</p> <p>Overlap = Title 40 CFR Part 60, Subpart NNN</p> <p>Group 1 = The process vent meets the definition of a Group 1 process vent.</p> <p>Continuous Monitoring = Complying with the continuous monitoring requirements of 40 CFR §§ 63.114, 63.117, and 63.118.</p> <p>Halogenated = Vent stream is not halogenated.</p> <p>By-pass Lines = The vent system contains by-pass lines that can divert the vent stream from the control device.</p> <p>Flow Indicator = A flow indicator is installed and operated at the entrance of the by-pass line.</p> <p>Performance Test = A performance test was conducted for determining compliance with a regulation promulgated by the EPA using the same methods specified in Subpart G and either no process changes have been made, or the results reliably indicate compliance.</p>	
OX016R2	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX016R300	40 CFR Part 63, Subpart G	63G-0004	<p>Alternate Monitoring Parameters = The EPA Administrator has not approved alternate monitoring parameters or alternate monitoring parameters are not used.</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>Control Device = Catalytic incinerator.</p> <p>Overlap = Title 40 CFR Part 60, Subpart III</p> <p>Group 1 = The process vent meets the definition of a Group 1 process vent.</p> <p>Continuous Monitoring = Complying with the continuous monitoring requirements of 40 CFR §§ 63.114, 63.117, and 63.118.</p> <p>Halogenated = Vent stream is not halogenated.</p> <p>By-pass Lines = The vent system contains by-pass lines that can divert the vent stream from the control device.</p> <p>Flow Indicator = A flow indicator is installed and operated at the entrance of the by-pass line.</p> <p>Performance Test = A performance test was conducted for determining compliance with a regulation promulgated by the EPA using the same methods specified in Subpart G and either no process changes have been made, or the results reliably indicate compliance.</p>	
OX016R6	40 CFR Part 63, Subpart FFFF	63FFFF-0005	<p>Emission Standard = The vent stream is Group 2 (not designated as Group 1 and determined to not be Group 1).</p> <p>Recovery Device = The TRE index is maintained without a recovery device.</p>	
OX011D1	40 CFR Part 60, Subpart NNN	60NNN-0036	<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 = Two or more distillation units discharging vent stream into a common 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>	
OX011D4	40 CFR Part 60, Subpart NNN	60NNN-0040	<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>Construction/Modification Date = After December 30, 1983.</p> <p>Vent Type = Two or more distillation units discharging vent stream into a common 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 less than 0.008 scm/min.</p>	
OX011D5	40 CFR Part 60, Subpart NNN	60NNN-0042	<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 = Two or more distillation units discharging vent stream into a common vapor recovery system.</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<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>	
OX011R1	40 CFR Part 60, Subpart RRR	60RRR-0025	<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>Total Design Capacity = Total design capacity is 1 gigagram per year (1,100 tons per year) or greater.</p> <p>Bypass Line = There is a bypass line valve that could divert the vent stream around the control device and directly to the atmosphere.</p> <p>Construction/Modification Date = After June 29, 1990.</p> <p>Vent Stream Flow Rate = Vent stream flow rate is 0.011 scm/min or greater, or value is not measured.</p> <p>Affected Facility Type = Combination of two or more reactor processes and the common recovery system into which their vent streams are discharged.</p> <p>Bypass Line Valve Secured = The bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration.</p> <p>TOC Exemption = No TOC concentration exemption.</p> <p>Control Device = Flare that meets the requirements of 40 CFR § 60.18.</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 not routed to a distillation unit subject to Title 40 CFR Part 60, Subpart NNN or has other releases to the air than from a pressure relief valve.</p> <p>TRE Index Value = TRE index value is less than or equal to 8.0 or a TRE index value is not calculated or claimed for exemption 40 CFR § 60.700(c)(2).</p> <p>TRE for Halogenated Vent Stream = TRE index value is being calculated for a nonhalogenated vent stream.</p>	
OX011R2	40 CFR Part 60, Subpart RRR	60RRR-0027	<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>Total Design Capacity = Total design capacity is 1 gigagram per year (1,100 tons per year) or greater.</p> <p>Bypass Line = There is a bypass line valve that could divert the vent stream around the control device and directly to the atmosphere.</p> <p>Construction/Modification Date = After June 29, 1990.</p> <p>Vent Stream Flow Rate = Vent stream flow rate is 0.011 scm/min or greater, or value is not measured.</p> <p>Affected Facility Type = Combination of two or more reactor processes and the common recovery system into which their vent streams are discharged.</p> <p>Bypass Line Valve Secured = The bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration.</p> <p>TOC Exemption = No TOC concentration exemption.</p> <p>Control Device = Flare that meets the requirements of 40 CFR § 60.18.</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 not routed to a distillation unit subject to Title 40 CFR Part 60, Subpart NNN or has other releases to the air than from a pressure relief valve.</p> <p>TRE Index Value = TRE index value is less than or equal to 8.0 or a TRE index value is not calculated or claimed</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>for exemption 40 CFR § 60.700(c)(2). TRE for Halogenated Vent Stream = TRE index value is being calculated for a nonhalogenated vent stream.</p>	
OX011R3	40 CFR Part 60, Subpart RRR	60RRR-0029	<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. Total Design Capacity = Total design capacity is 1 gigagram per year (1,100 tons per year) or greater. Bypass Line = There is a bypass line valve that could divert the vent stream around the control device and directly to the atmosphere. Construction/Modification Date = After June 29, 1990. Vent Stream Flow Rate = Vent stream flow rate is 0.011 scm/min or greater, or value is not measured. Affected Facility Type = Combination of two or more reactor processes and the common recovery system into which their vent streams are discharged. Bypass Line Valve Secured = The bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration. TOC Exemption = No TOC concentration exemption. Control Device = Flare that meets the requirements of 40 CFR § 60.18. 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. Subject to Title 40 CFR Part 60, Subpart NNN = The vent stream is not routed to a distillation unit subject to Title 40 CFR Part 60, Subpart NNN or has other releases to the air than from a pressure relief valve. TRE Index Value = TRE index value is less than or equal to 8.0 or a TRE index value is not calculated or claimed for exemption 40 CFR § 60.700(c)(2). TRE for Halogenated Vent Stream = TRE index value is being calculated for a nonhalogenated vent stream.</p>	
OX016R3	40 CFR Part 60, Subpart III	60III-0001	<p>Construction/Modification Date = After October 21, 1983. Affected Facility = Combination of two or more air oxidation reactors and common recovery systems into which their vent streams are discharged. TRE Index Value = TRE index value is not calculated or claimed for exemption in 40 CFR § 60.610(c). Control Device = Catalytic incinerator is used to comply with TOC emission limits.</p>	
OX016R5	40 CFR Part 60, Subpart III	60III-0002	<p>Construction/Modification Date = After October 21, 1983. Affected Facility = Combination of two or more air oxidation reactors and common recovery systems into which their vent streams are discharged. TRE Index Value = TRE index value is not calculated or claimed for exemption in 40 CFR § 60.610(c). Control Device = Catalytic incinerator is used to comply with TOC emission limits.</p>	
PROBUTAC	40 CFR Part 63, Subpart FFFF	63FFFF-0001	<p>>1000 lb/yr = The process has uncontrolled hydrogen halide and halogen HAP emissions from process vents of less than 1,000 lb/yr. Ammonium Sulfate = The MCPU does not include the manufacture of ammonium sulfate as a by-product, or the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less or 10 ppmw benzene or less. Startup 2003 = The affected source startup was before November 10, 2003. Other Operations = The MCPU includes operations other than those listed in § 63.2435(c). Shared Batch Vent = The MCPU does not include a batch process vent that also is part of a CPMU as defined in</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>subparts F and G of this part 63.</p> <p>63.100 CMPU = The MCPU is not a CMPU defined in § 63.100.</p> <p>New Source = The MCPU is an existing affected source.</p> <p>PUG = The MCPU is not part of a process unit group (PUG).</p> <p>G2/<1000 lb/yr = The process does not include Group 2 batch process vents and/or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr.</p> <p>Startup 2002 = The affected source initial startup was before April 4, 2002.</p> <p>PP Alt = The MCPU is complying with the emission limitations and work practice standards contained in Tables 1 through 7.</p> <p>Batch Process Vents = The source does not include batch process vents.</p>	
PROESTER	40 CFR Part 63, Subpart FFFF	63FFFF-0001	<p>>1000 lb/yr = The process has uncontrolled hydrogen halide and halogen HAP emissions from process vents of less than 1,000 lb/yr.</p> <p>Ammonium Sulfate = The MCPU does not include the manufacture of ammonium sulfate as a by-product, or the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less or 10 ppmw benzene or less.</p> <p>Startup 2003 = The affected source startup was before November 10, 2003.</p> <p>Other Operations = The MCPU includes operations other than those listed in § 63.2435(c).</p> <p>Shared Batch Vent = The MCPU does not include a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63.</p> <p>63.100 CMPU = The MCPU is not a CMPU defined in § 63.100.</p> <p>New Source = The MCPU is an existing affected source.</p> <p>PUG = The MCPU is not part of a process unit group (PUG).</p> <p>G2/<1000 lb/yr = The process does not include Group 2 batch process vents and/or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr.</p> <p>Startup 2002 = The affected source initial startup was before April 4, 2002.</p> <p>PP Alt = The MCPU is complying with the emission limitations and work practice standards contained in Tables 1 through 7.</p> <p>Batch Process Vents = The source does not include batch process vents.</p>	
PRONITKET	40 CFR Part 63, Subpart FFFF	63FFFF-0001	<p>>1000 lb/yr = The process has uncontrolled hydrogen halide and halogen HAP emissions from process vents of less than 1,000 lb/yr.</p> <p>Ammonium Sulfate = The MCPU does not include the manufacture of ammonium sulfate as a by-product, or the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less or 10 ppmw benzene or less.</p> <p>Startup 2003 = The affected source startup was before November 10, 2003.</p> <p>Other Operations = The MCPU includes operations other than those listed in § 63.2435(c).</p> <p>Shared Batch Vent = The MCPU does not include a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63.</p> <p>63.100 CMPU = The MCPU is not a CMPU defined in § 63.100.</p> <p>New Source = The MCPU is an existing affected source.</p> <p>PUG = The MCPU is not part of a process unit group (PUG).</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			<p>G2/<1000 lb/yr = The process does not include Group 2 batch process vents and/or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr.</p> <p>Startup 2002 = The affected source initial startup was before April 4, 2002.</p> <p>PP Alt = The MCPU is complying with the emission limitations and work practice standards contained in Tables 1 through 7.</p> <p>Batch Process Vents = The source does not include batch process vents.</p>	
PROPROPAC	40 CFR Part 63, Subpart F	63F-0005	<p>Applicable Chemicals = The chemical manufacturing process unit manufactures, as a primary product, one or more of the chemicals listed in 40 CFR § 63.100(b)(1)(i) or 40 CFR § 63.100(b)(1)(ii).</p> <p>Intervening Cooling Fluid = There is no intervening cooling fluid containing less than 5 percent by weight of total HAPs listed in Table 4 of 40 CFR Part 63, Subpart F, between the process and cooling water.</p> <p>Table 2 HAP = The chemical manufacturing process unit uses as a reactant or manufactures, as a product or co-product, one or more of the organic hazardous air pollutants in Table 2.</p> <p>Table 4 HAP Content = The recirculating heat exchange system is not used exclusively to cool process fluids that contain less than 5 percent by weight of total HAPs listed in Table 4 of title 40 CFR Part 63, Subpart F.</p> <p>Alternate Means of Emission Limitation = No alternative means of emission limitation has been approved by the EPA Administrator to achieve a reduction in organic HAP emission or no alternate has been requested.</p> <p>NPDES Permit = The once-through heat exchange system is not subject to NPDES permit with an allowable discharge limit of 1 part per million or less above influent concentration or 10 percent or less above influent concentration.</p> <p>Meets 40 CFR 63.104(a)(4)(i)-(iv) = The once-through heat exchange system is not subject to an NPDES permit that meets 40 CFR § 63.104(a)(4)(i) - (iv).</p> <p>Heat Exchange System = A heat exchange system is utilized.</p> <p>Table 9 HAP Content = The once-through heat exchange system is not used exclusively to cool process fluids that contain less than 5 percent by weight of total HAPs listed in Table 9 of 40 CFR Part 63, Subpart G.</p> <p>Cooling Water Monitored = The cooling water is being monitored for the presence of one or more HAPs or other representative substances whose presence in cooling water indicates a leak.</p> <p>Cooling Water Pressure = The heat exchange system is not operated with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side.</p>	
PROTEXAN	40 CFR Part 63, Subpart FFFF	63FFFF-0001	<p>>1000 lb/yr = The process has uncontrolled hydrogen halide and halogen HAP emissions from process vents of less than 1,000 lb/yr.</p> <p>Ammonium Sulfate = The MCPU does not include the manufacture of ammonium sulfate as a by-product, or the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less or 10 ppmw benzene or less.</p> <p>Startup 2003 = The affected source startup was before November 10, 2003.</p> <p>Other Operations = The MCPU includes operations other than those listed in § 63.2435(c).</p> <p>Shared Batch Vent = The MCPU does not include a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63.</p> <p>63.100 CMPU = The MCPU is not a CMPU defined in § 63.100.</p> <p>New Source = The MCPU is an existing affected source.</p> <p>PUG = The MCPU is not part of a process unit group (PUG).</p> <p>G2/<1000 lb/yr = The process does not include Group 2 batch process vents and/or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr.</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			Startup 2002 = The affected source initial startup was before April 4, 2002. PP Alt = The MCPU is complying with the emission limitations and work practice standards contained in Tables 1 through 7. Batch Process Vents = The source does not include batch process vents.	

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

** - Notes changes made to the automated results from the DSS, and a brief explanation why

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

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.: 21832	Issuance Date: 02/12/2013
Authorization No.: 27941	Issuance Date: 06/02/2006
Authorization No.: 6777	Issuance Date: 10/11/2006
Authorization No.: 78809	Issuance Date: 03/20/2012
Authorization No.: 81894	Issuance Date: 05/31/2007
Authorization No.: 84724	Issuance Date: 08/19/2013
Authorization No.: 9631	Issuance Date: 08/19/2015
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.122	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 12/24/1998
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 12/24/1998
Number: 106.262	Version No./Date: 09/04/2000
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: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 09/04/2000
Number: 106.475	Version No./Date: 09/04/2000
Number: 106.476	Version No./Date: 09/04/2000
Number: 106.478	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

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.: OX016R3	
Control Device ID No.: 016CU1	Control Device Type: Catalytic Incinerator
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart III	SOP Index No.: 60III-0001
Pollutant: VOC/TOC	Main Standard: § 60.612(a)
Monitoring Information	
Indicator: Cat-Ox Inlet Temperature	
Minimum Frequency: Continuously	
Averaging Period: 6 Minutes	
Deviation Limit: Inlet temperature to catalyst bed for catalytic oxidizer < 530 F when Unit OX016R3 is in operation except during periods of startup, shutdown, and maintenance.	
Basis of CAM: It is widely practiced and accepted to use performance tests, manufacturer's recommendations, engineering calculations and/or historical data to establish a minimum inlet and outlet gas temperature across the catalyst bed of a catalytic incinerator. These minimum temperatures must be maintained in order for the proper destruction efficiency. Operation below the minimum temperatures will result in incomplete combustion and a loss in the VOC destruction efficiency of the catalytic incinerator. Monitoring the catalyst bed inlet and outlet temperature is commonly required in federal and state rules, including: 40 CFR Part 60, Subparts III, NNN, QQQ, and RRR; 40 CFR Part 61, Subparts BB and FF; 40 CFR Part 63, Subparts DD, EE and HH; and 30 TAC Chapter 115.	

Unit/Group/Process Information	
ID No.: OX016R5	
Control Device ID No.: 016CU1	Control Device Type: Catalytic Incinerator
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart III	SOP Index No.: 60III-0002
Pollutant: VOC/TOC	Main Standard: § 60.612(a)
Monitoring Information	
Indicator: Cat-Ox Inlet Temperature	
Minimum Frequency: Continuously	
Averaging Period: 6 Minutes	
Deviation Limit: Inlet temperature to catalyst bed for catalytic oxidizer < 530 F when Unit OX016R5 is in operation except during periods of startup, shutdown, and maintenance.	
<p>Basis of CAM: It is widely practiced and accepted to use performance tests, manufacturer's recommendations, engineering calculations and/or historical data to establish a minimum inlet and outlet gas temperature across the catalyst bed of a catalytic incinerator. These minimum temperatures must be maintained in order for the proper destruction efficiency. Operation below the minimum temperatures will result in incomplete combustion and a loss in the VOC destruction efficiency of the catalytic incinerator. Monitoring the catalyst bed inlet and outlet temperature is commonly required in federal and state rules, including: 40 CFR Part 60, Subparts III, NNN, QQQ, and RRR; 40 CFR Part 61, Subparts BB and FF; 40 CFR Part 63, Subparts DD, EE and HH; and 30 TAC Chapter 115.</p>	

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.: OX011ES3	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-0003
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(A)
Monitoring Information	
Indicator: Visible emissions	
Minimum Frequency: Quarterly	
Averaging Period: 6 minutes	
Deviation Limit: Failure to perform quarterly visible emissions (VE) observation (except when unit is not operational for entire quarter), VE present but no TM 9 performed, TM 9 performed and opacity > 30% shall be reported as a deviation.	
Basis of monitoring: The option 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.	

Unit/Group/Process Information	
ID No.: OX011ES4	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-0003
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(A)
Monitoring Information	
Indicator: Visible emissions	
Minimum Frequency: Quarterly	
Averaging Period: 6 minutes	
Deviation Limit: Failure to perform quarterly visible emissions (VE) observation (except when unit is not operational for entire quarter), VE present but no TM 9 performed, TM 9 performed and opacity > 30% shall be reported as a deviation.	
<p>Basis of monitoring:</p> <p>The option 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>	

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