[SEQ CHAPTER \h \r 1]Statement of Basis of the Federal Operating Permit

Eastman Chemical Company

Site Name: Eastman Chemical Company Texas Operations
Area Name: C5 - Ethylene Glycol
Physical Location: 300 Kodak Blvd
Nearest City: Longview
County: Harrison

Permit Number: O1974
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 6, 2016

Operating Permit
Basis of Determination

Description of Revisions
40 CFR 63, Subpart G applicable requirements were added to EP105T50. This unit had a change in service and is now subject to this regulation. With the exception of this regulation, the existing permit shields for this unit remain. The previously granted permit shield for 40 CFR Part 63, Subpart G has been deleted.

EP104FL1 and EP141FL1 unit name/descriptions have been updated. EP104FL1 was updated to "EO Sewer Tank Pilot Burner" from "EO/EG Plant No.2 Flare". EP141FL1 was updated to "Relief Header Pilot Burner" from "EO-2 Emergency Flare". The applicable requirements remain the same for these two units.

The "New Source Authorization References" table has been updated to reflect the most recent issuance date of NSR Permit 1329, which is 11/16/2016. Previously it was 05/21/2007.

Permit Area Process Description
This application area, Area C5, Ethylene Glycol, consists of two ethylene oxide/ethylene glycol plants and two solvents plants.

The two ethylene oxide/ethylene glycol plants produce ethylene oxide and ethylene glycols from ethylene and oxygen in a continuous process. The process steps include reaction, separation, product storage and product transfer. Emission units are reactors, process tanks, distillation units, process cooling towers and storage tanks; and emission control devices are flares. There are fugitive equipment leaks, heat exchanger leaks and wastewater. The types of emissions are volatile organic compounds (VOCs) and hazardous air pollutants (HAPs).

The solvents plants manufacture ethylene glycol ethers from ethylene oxide and alcohols or other glycols ethers. The manufacturing steps include materials storage, reaction, separation, product storage and product transfer. Emission units are reactors, process tanks, distillation units and storage tanks. There are fugitive equipment leaks, heat exchanger leaks and wastewater. The types of emissions are volatile organic compounds (VOCs) and hazardous air pollutants (HAPs).

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, O1975, O1976, O1977, O1978, O1979, O1981, O1982

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

Major Pollutants	VOC, SO2, PM, NOX, HAPS, CO

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

ED_005994_00002220-00003

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.

ED_005994_00002220-00006

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 [HYPERLINK "http://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 [HYPERLINK "http://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.

ED_005994_00002220-00008

Determination of Applicable Requirements

Unit ID	Regulation	Index Number	Basis of Determination*
EP037T543A	40 CFR Part 63, Subpart G	63G-0007	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP037T543B	40 CFR Part 63, Subpart G	63G-0008	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP038T106	40 CFR Part 63, Subpart G	63G-0012	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP038T106A	40 CFR Part 63, Subpart G	63G-0013	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP038T131	40 CFR Part 63, Subpart G	63G-0014	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP039T113	40 CFR Part 63, Subpart G	63G-0022	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP039T606A	40 CFR Part 63, Subpart G	63G-0023	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP039T606B	40 CFR Part 63, Subpart G	63G-0024	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP104T51	40 CFR Part 63, Subpart G	63G-0028	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP104T52	40 CFR Part 63, Subpart G	63G-0029	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP105T50	40 CFR Part 63, Subpart G	68G-0028	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y.

ED_005994_00002220-00009

Unit ID	Regulation	Index Number	Basis of Determination*
			NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD020T116	40 CFR Part 63, Subpart G	63G-0047	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD021T137	40 CFR Part 63, Subpart G	63G-0036	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD093T2	40 CFR Part 63, Subpart G	63G-0037	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD098T3	40 CFR Part 63, Subpart G	63G-0038	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD098T4	40 CFR Part 63, Subpart G	63G-0039	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD098T5	40 CFR Part 63, Subpart G	63G-0040	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD098T6	40 CFR Part 63, Subpart G	63G-0041	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD098T7	40 CFR Part 63, Subpart G	63G-0042	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD098T8	40 CFR Part 63, Subpart G	63G-0043	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD099T14	40 CFR Part 63, Subpart G	63G-0044	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD099T15	40 CFR Part 63, Subpart G	63G-0045	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y.

Unit ID	Regulation	Index Number	Basis of Determination*
			NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
SD101T21	40 CFR Part 63, Subpart G	63G-0046	MACT Subpart F/G Applicability = The unit is a Group 2 vessel. NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y. NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
EP104FL1	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.
EP141FL1	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.
EP036FG1	40 CFR Part 63, Subpart H	63H-0001	ANY (CLOSED VENT SYSTEMS) = COMPONENT NOT 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 VENT STREAM AWAY FROM THE CONTROL DEVICE AND TO THE ATMOSPHERE EQUIPMENT TYPE = FUGITIVE UNIT CONTAINS EQUIPMENT LISTED IN 40 CFR § 63.160(A) WHICH IS OPERATED IN ORGANIC HAZARDOUS AIR POLLUTANT SERVICE GAS/VAPOR OR LIGHT LIQUID SERVICE (AGITATORS) = COMPONENT NOT PRESENT LIGHT LIQUID SERVICE (PUMPS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (AGITATORS) = COMPONENT NOT PRESENT HEAVY LIQUID SERVICE (OPEN-ENDED VALVES OR LINES) = COMPONENT PRESENT HEAVY LIQUID SERVICE (PUMPS) = COMPONENT PRESENT NON RESEARCH AND DEVELOPMENT/BATCH PROCESSES = FUGITIVE UNIT CONTAINS PROCESSES OTHER THAN RESEARCH AND DEVELOPMENT FACILITIES AND BENCH-SCALE BATCH PROCESSES RECOVERY OR RECAPTURE DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT UNSAFE TO INSPECT = FOR A FUGITIVE UNIT THAT CONTAINS ANY CLOSED-VENT SYSTEM, THERE ARE NO PARTS DESIGNATED AS UNSAFE TO INSPECT ANY (INSTRUMENTATION SYSTEMS) = COMPONENT PRESENT DIFFICULT TO INSPECT = FOR A FUGITIVE UNIT THAT CONTAINS ANY CLOSED-VENT SYSTEM, THERE ARE NO PARTS DESIGNATED AS DIFFICULT TO INSPECT GAS/VAPOR OR LIGHT LIQUID SERVICE (VALVES) = COMPONENT PRESENT QIP = UNIT DOES NOT OPT TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR PUMPS VACUUM SERVICE = NOT ALL OF THE EQUIPMENT IN THE FUGITIVE UNIT IS IN VACUUM SERVICE ANY (COMPRESSORS) = COMPONENT NOT PRESENT EMPLOYEE NUMBER = THE CORPORATION EMPLOYS 100 OR MORE PERSONS ENCLOSED COMBUSTION DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT HEAVY LIQUID SERVICE (INSTRUMENTATION SYSTEMS = COMPONENT PRESENT HEAVY LIQUID SERVICE (VALVES) = COMPONENT PRESENT 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

Unit ID	Regulation	Index Number	Basis of Determination*
			CALENDAR YEAR ANY (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT GAS VAPOR SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT QIP = UNIT DOES NOT OPT TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR VALVES AMEL = FUGITIVE UNIT SOURCE OWNER/OPERATOR IS NOT ELECTING TO COMPLY WITH AN ALTERNATIVE MEANS OF EMISSION LIMITATION (AMEL) FLARES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT GAS/VAPOR OR LIGHT LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT HEAVY LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT ANY (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT
EP037FG1	40 CFR Part 63, Subpart H	63H-0002	ANY (CLOSED VENT SYSTEMS) = COMPONENT NOT 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 VENT STREAM AWAY FROM THE CONTROL DEVICE AND TO THE ATMOSPHERE EQUIPMENT TYPE = FUGITIVE UNIT CONTAINS EQUIPMENT LISTED IN 40 CFR § 63.160(A) WHICH IS OPERATED IN ORGANIC HAZARDOUS AIR POLLUTANT SERVICE GAS/VAPOR OR LIGHT LIQUID SERVICE (AGITATORS) = COMPONENT NOT PRESENT LIGHT LIQUID SERVICE (PUMPS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (AGITATORS) = COMPONENT NOT PRESENT HEAVY LIQUID SERVICE (OPEN-ENDED VALVES OR LINES) = COMPONENT PRESENT HEAVY LIQUID SERVICE (PUMPS) = COMPONENT PRESENT NON RESEARCH AND DEVELOPMENT/BATCH PROCESSES = FUGITIVE UNIT CONTAINS PROCESSES OTHER THAN RESEARCH AND DEVELOPMENT FACILITIES AND BENCH-SCALE BATCH PROCESSES RECOVERY OR RECAPTURE DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT UNSAFE TO INSPECT = FOR A FUGITIVE UNIT THAT CONTAINS ANY CLOSED-VENT SYSTEM, THERE ARE NO PARTS DESIGNATED AS UNSAFE TO INSPECT ANY (INSTRUMENTATION SYSTEMS) = COMPONENT PRESENT DIFFICULT TO INSPECT = FOR A FUGITIVE UNIT THAT CONTAINS ANY CLOSED-VENT SYSTEM, THERE ARE NO PARTS DESIGNATED AS DIFFICULT TO INSPECT GAS/VAPOR OR LIGHT LIQUID SERVICE (VALVES) = COMPONENT PRESENT QIP = UNIT DOES NOT OPT TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR PUMPS VACUUM SERVICE = NOT ALL OF THE EQUIPMENT IN THE FUGITIVE UNIT IS IN VACUUM SERVICE ANY (COMPRESSORS) = COMPONENT NOT PRESENT

Unit ID	Regulation	Index Number	Basis of Determination*
			EMPLOYEE NUMBER = THE CORPORATION EMPLOYS 100 OR MORE PERSONS ENCLOSED COMBUSTION DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT HEAVY LIQUID SERVICE (INSTRUMENTATION SYSTEMS = COMPONENT PRESENT HEAVY LIQUID SERVICE (VALVES) = COMPONENT PRESENT 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 ANY (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT GAS VAPOR SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT QIP = UNIT DOES NOT OPT TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR VALVES AMEL = FUGITIVE UNIT SOURCE OWNER/OPERATOR IS NOT ELECTING TO COMPLY WITH AN ALTERNATIVE MEANS OF EMISSION LIMITATION (AMEL) FLARES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT GAS/VAPOR OR LIGHT LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT HEAVY LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT ANY (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT
EP038FG1	40 CFR Part 63, Subpart H	63H-0003	ANY (CLOSED VENT SYSTEMS) = COMPONENT NOT 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 VENT STREAM AWAY FROM THE CONTROL DEVICE AND TO THE ATMOSPHERE EQUIPMENT TYPE = FUGITIVE UNIT CONTAINS EQUIPMENT LISTED IN 40 CFR § 63.160(A) WHICH IS OPERATED IN ORGANIC HAZARDOUS AIR POLLUTANT SERVICE GAS/VAPOR OR LIGHT LIQUID SERVICE (AGITATORS) = COMPONENT PRESENT LIGHT LIQUID SERVICE (PUMPS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (AGITATORS) = COMPONENT NOT PRESENT HEAVY LIQUID SERVICE (OPEN-ENDED VALVES OR LINES) = COMPONENT PRESENT HEAVY LIQUID SERVICE (PUMPS) = COMPONENT PRESENT NON RESEARCH AND DEVELOPMENT/BATCH PROCESSES = FUGITIVE UNIT CONTAINS PROCESSES OTHER THAN RESEARCH AND DEVELOPMENT FACILITIES AND BENCH-SCALE BATCH PROCESSES RECOVERY OR RECAPTURE DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT UNSAFE TO INSPECT = FOR A FUGITIVE UNIT THAT CONTAINS ANY CLOSED-VENT SYSTEM, THERE ARE NO PARTS DESIGNATED AS UNSAFE TO INSPECT ANY (INSTRUMENTATION SYSTEMS) = COMPONENT PRESENT DIFFICULT TO INSPECT = FOR A FUGITIVE UNIT THAT CONTAINS ANY CLOSED-VENT SYSTEM, THERE ARE NO

Unit ID	Regulation	Index Number	Basis of Determination*
			PARTS DESIGNATED AS DIFFICULT TO INSPECT GAS/VAPOR OR LIGHT LIQUID SERVICE (VALVES) = COMPONENT PRESENT QIP = UNIT DOES NOT OPT TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR PUMPS VACUUM SERVICE = NOT ALL OF THE EQUIPMENT IN THE FUGITIVE UNIT IS IN VACUUM SERVICE ANY (COMPRESSORS) = COMPONENT NOT PRESENT EMPLOYEE NUMBER = THE CORPORATION EMPLOYS 100 OR MORE PERSONS ENCLOSED COMBUSTION DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT HEAVY LIQUID SERVICE (INSTRUMENTATION SYSTEMS = COMPONENT PRESENT HEAVY LIQUID SERVICE (VALVES) = COMPONENT PRESENT 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 ANY (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT GAS VAPOR SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT QIP = UNIT DOES NOT OPT TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR VALVES AMEL = FUGITIVE UNIT SOURCE OWNER/OPERATOR IS NOT ELECTING TO COMPLY WITH AN ALTERNATIVE MEANS OF EMISSION LIMITATION (AMEL) FLARES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT GAS/VAPOR OR LIGHT LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT HEAVY LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT ANY (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT
EP038FG2	40 CFR Part 63, Subpart H	63H-0004	ANY (CLOSED VENT SYSTEMS) = COMPONENT NOT 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 VENT STREAM AWAY FROM THE CONTROL DEVICE AND TO THE ATMOSPHERE EQUIPMENT TYPE = FUGITIVE UNIT CONTAINS EQUIPMENT LISTED IN 40 CFR § 63.160(A) WHICH IS OPERATED IN ORGANIC HAZARDOUS AIR POLLUTANT SERVICE GAS/VAPOR OR LIGHT LIQUID SERVICE (AGITATORS) = COMPONENT NOT PRESENT LIGHT LIQUID SERVICE (PUMPS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (AGITATORS) = COMPONENT NOT PRESENT HEAVY LIQUID SERVICE (OPEN-ENDED VALVES OR LINES) = COMPONENT PRESENT HEAVY LIQUID SERVICE (PUMPS) = COMPONENT PRESENT NON RESEARCH AND DEVELOPMENT/BATCH PROCESSES = FUGITIVE UNIT CONTAINS PROCESSES OTHER THAN RESEARCH AND DEVELOPMENT FACILITIES AND BENCH-SCALE BATCH PROCESSES

Unit ID	Regulation	Index Number	Basis of Determination*
			RECOVERY OR RECAPTURE DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT UNSAFE TO INSPECT = FOR A FUGITIVE UNIT THAT CONTAINS ANY CLOSED-VENT SYSTEM, THERE ARE NO PARTS DESIGNATED AS UNSAFE TO INSPECT ANY (INSTRUMENTATION SYSTEMS) = COMPONENT PRESENT DIFFICULT TO INSPECT = FOR A FUGITIVE UNIT THAT CONTAINS ANY CLOSED-VENT SYSTEM, THERE ARE NO PARTS DESIGNATED AS DIFFICULT TO INSPECT GAS/VAPOR OR LIGHT LIQUID SERVICE (VALVES) = COMPONENT PRESENT QIP = UNIT DOES NOT OPT TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR PUMPS VACUUM SERVICE = NOT ALL OF THE EQUIPMENT IN THE FUGITIVE UNIT IS IN VACUUM SERVICE ANY (COMPRESSORS) = COMPONENT NOT PRESENT EMPLOYEE NUMBER = THE CORPORATION EMPLOYS 100 OR MORE PERSONS ENCLOSED COMBUSTION DEVICES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT HEAVY LIQUID SERVICE (INSTRUMENTATION SYSTEMS = COMPONENT PRESENT HEAVY LIQUID SERVICE (VALVES) = COMPONENT PRESENT 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 ANY (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT GAS VAPOR SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT QIP = UNIT DOES NOT OPT TO COMPLY WITH A QUALITY IMPROVEMENT PROGRAM FOR VALVES AMEL = FUGITIVE UNIT SOURCE OWNER/OPERATOR IS NOT ELECTING TO COMPLY WITH AN ALTERNATIVE MEANS OF EMISSION LIMITATION (AMEL) FLARES (CLOSED VENT SYSTEMS) = COMPONENT NOT PRESENT GAS/VAPOR OR LIGHT LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (SURGE CONTROL VESSELS OR BOTTOMS RECEIVERS) = COMPONENT PRESENT LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT HEAVY LIQUID SERVICE (CONNECTORS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (PRESSURE RELIEF DEVICES) = COMPONENT PRESENT ANY (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT HEAVY LIQUID SERVICE (SAMPLING CONNECTION SYSTEMS) = COMPONENT PRESENT
EP036U1	30 TAC Chapter 111, Visible Emissions	R1111-0003	Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113. 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. 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). Construction Date = On or before January 31, 1972 Effluent Flow Rate = Effluent flow rate is less than 100,000 actual cubic feet per minute.

ED_005994_00002220-00015

Unit ID	Regulation	Index Number	Basis of Determination*
EP037U501	30 TAC Chapter 111, Visible Emissions	R1111-0004	Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113. 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. 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). Construction Date = After January 31, 1972 Effluent Flow Rate = Effluent flow rate is less than 100,000 actual cubic feet per minute.
EP038D101R	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 = Condenser used as a recovery device. Overlap = Title 40 CFR Part 63, Subpart G only Group 1 = The process vent is a Group 2 process vent. Continuous Monitoring = Complying with the continuous monitoring requirements of 40 CFR §§ 63.114, 63.117, and 63.118. Halogenated = Vent stream is not halogenated. HAP Concentration = HAP concentration is greater than or equal to 50 ppm. By-pass Lines = The vent system does not contain by-pass lines that can divert the vent stream from the control device. Flow Rate = Flow rate is greater than or equal to 0.005 scm/min or the owner or operator is not electing to demonstrate this flow rate. Electing Control = Not electing to control the process vent to the levels required in 40 CFR § 63.113(a)(1) or (a)(2). 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. MACT TRE Index Value = TRE index value is greater than 4.0 as calculated using the procedures of 40 CFR § 63.115(d).
EP038D601	40 CFR Part 63, Subpart G	63G-0002	Alternate Monitoring Parameters = The EPA Administrator has not approved alternate monitoring parameters or alternate monitoring parameters are not used. Control Device = Absorber used as a recovery device. Overlap = Title 40 CFR Part 63, Subpart G only Group 1 = The process vent is a Group 2 process vent. Continuous Monitoring = Complying with the continuous monitoring requirements of 40 CFR §§ 63.114, 63.117, and 63.118. Halogenated = Vent stream is not halogenated. HAP Concentration = HAP concentration is greater than or equal to 50 ppm. By-pass Lines = The vent system does not contain by-pass lines that can divert the vent stream from the control device. Flow Rate = Flow rate is greater than or equal to 0.005 scm/min or the owner or operator is not electing to

Unit ID	Regulation	Index Number	Basis of Determination*
			demonstrate this flow rate. Electing Control = Not electing to control the process vent to the levels required in 40 CFR § 63.113(a)(1) or (a)(2). 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. MACT TRE Index Value = TRE index value is greater than 4.0 as calculated using the procedures of 40 CFR § 63.115(d).
EP037D513	40 CFR Part 60, Subpart NNN	60NNN-0001	Subpart NNN Chemicals = The distillation unit produces any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate. Total Resource Effectiveness = TRE index value greater than 8.0 not from a halogenated vent stream. Construction/Modification Date = After December 30, 1983. Vent Type = Distillation unit not discharging vent stream into a vapor recovery system. Distillation Unit Type = Does not qualify for any exemption under § 60.660(c)(1)-(3). Total Design Capacity = 1 gigagram per year or greater. Vent Stream Flow Rate = Flow rate greater than or equal to 0.008 scm/min.
EP037D514	40 CFR Part 60, Subpart NNN	60NNN-0001	Subpart NNN Chemicals = The distillation unit produces any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate. Total Resource Effectiveness = TRE index value greater than 8.0 not from a halogenated vent stream. Construction/Modification Date = After December 30, 1983. Vent Type = Distillation unit not discharging vent stream into a vapor recovery system. Distillation Unit Type = Does not qualify for any exemption under § 60.660(c)(1)-(3). Total Design Capacity = 1 gigagram per year or greater. Vent Stream Flow Rate = Flow rate greater than or equal to 0.008 scm/min.
EP037D516	40 CFR Part 60, Subpart NNN	60NNN-0001	Subpart NNN Chemicals = The distillation unit produces any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate. Total Resource Effectiveness = TRE index value greater than 8.0 not from a halogenated vent stream. Construction/Modification Date = After December 30, 1983. Vent Type = Distillation unit not discharging vent stream into a vapor recovery system. Distillation Unit Type = Does not qualify for any exemption under § 60.660(c)(1)-(3). Total Design Capacity = 1 gigagram per year or greater. Vent Stream Flow Rate = Flow rate greater than or equal to 0.008 scm/min.
EP038D102R	40 CFR Part 60, Subpart NNN	60NNN-0001	Subpart NNN Chemicals = The distillation unit produces any chemical listed in 40 CFR § 60.667 as a product, co-product, by-product, or intermediate. Total Resource Effectiveness = TRE index value greater than 8.0 not from a halogenated vent stream. Construction/Modification Date = After December 30, 1983. Vent Type = Distillation unit not discharging vent stream into a vapor recovery system. Distillation Unit Type = Does not qualify for any exemption under § 60.660(c)(1)-(3).

Unit ID	Regulation	Index Number	Basis of Determination*
			Total Design Capacity = 1 gigagram per year or greater. Vent Stream Flow Rate = Flow rate greater than or equal to 0.008 scm/min.
PROEOEG1	40 CFR Part 63, Subpart F	63F-0001	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). 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. 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. 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. 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. 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. 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). Heat Exchange System = A heat exchange system is utilized. 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. 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. 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.
PROEOEG2	40 CFR Part 63, Subpart F	63F-0002	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). 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. 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. 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. 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. 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. 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). Heat Exchange System = A heat exchange system is utilized. 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. 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.

Unit ID	Regulation	Index Number	Basis of Determination*
			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.
PROES1	40 CFR Part 63, Subpart F	63F-0003	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). 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. 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. 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. 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. 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. 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). Heat Exchange System = A heat exchange system is utilized. Table 9 HAP Content = The once-through heat exchange system is 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. 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.
PROES1	40 CFR Part 63, Subpart FFFF	63FFFF-0002	Designated Grp1 = The emission stream is not designated as Group 1. Determined Grp1 = The emission stream is determined to be Group 2.
PROES2	40 CFR Part 63, Subpart F	63F-0004	Applicable Chemicals = The chemical manufacturing process unit manufactures, as a primary product, one or more of the chemicals listed in 40 CFR § 63.100(b)(1)(i) or 40 CFR § 63.100(b)(1)(ii). Table 2 HAP = The chemical manufacturing process unit uses as a reactant or manufactures, as a product or co-product, one or more of the organic hazardous air pollutants in Table 2. 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. Heat Exchange System = A heat exchange system is utilized. Cooling Water Pressure = The heat exchange system is operated with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side.

* - 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

[SEQ CHAPTER \h \r 1]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:

[HYPERLINK "http://www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html"]

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

[HYPERLINK "http://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:

[HYPERLINK "http://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.: 1329	Issuance Date: 11/16/2016
Authorization No.: 49363	Issuance Date: 09/09/2004
Authorization No.: 52985	Issuance Date: 11/10/2005
Authorization No.: 6419	Issuance Date: 11/13/2006
Authorization No.: 84724	Issuance Date: 08/19/2013
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.122	Version No./Date: 09/04/2000
Number: 106.183	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 09/04/2000
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 03/14/1997
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.472	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 sand-blasting yard) is called an emission point. For New Source Review preconstruction permitting purposes, every emission unit has an associated emission point. Emission limits are listed in an NSR permit, associated with an emission point. This list of emission points and emission limits per pollutant is commonly referred to as the "Maximum Allowable Emission Rate Table", or "MAERT" for short. Specifically, the MAERT lists the Emission Point Number (EPN) that identifies the emission point, followed immediately by the Source Name, identifying the emission unit that is the source of those emissions on this table.

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

Monitoring Sufficiency

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

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

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

Periodic Monitoring:

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

Unit/Group/Process Information	
ID No.: EP036U1	
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: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: There shall be no visible emissions. If visible emissions are observed, the permit holder shall either report a deviation or perform Test Method 9 within 24 hours and opacity shall not exceed 30%.	
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. 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. The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.	

ED_005994_00002220-00023

Unit/Group/Process Information	
ID No.: EP037U501	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-0004
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per calendar quarter	
Averaging Period: n/a	
Deviation Limit: There shall be no visible emissions. If visible emissions are observed, the permit holder shall either report a deviation or perform Test Method 9 within 24 hours and opacity shall not exceed 20%.	
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. 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. The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.	

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 Semichemical 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

ED_005994_00002220-00026