

Statement of Basis of the Federal Operating Permit

Golden Pass LNG Terminal LLC

Site Name: Golden Pass LNG Export Terminal
Area Name: Golden Pass LNG Terminal
Physical Location: 3752 South Gulfway Dr
Nearest City: Sabine Pass
County: Jefferson

Permit Number: O4485
Project Type: Initial Issuance

The North American Industry Classification System (NAICS) Code: 486210
NAICS Name: Pipeline Transportation of Natural Gas

This Statement of Basis sets forth the legal and factual basis for the draft permit conditions in accordance with 30 TAC §122.201(a)(4). An application for initial permit issuance has been submitted in accordance with 30 TAC § 122.201. This document may include the following information:

- A description of the facility/area process description;
- 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: June 5, 2024

Operating Permit Basis of Determination

Permit Area Process Description

The proposed Export Terminal, to be located in Jefferson County, Sabine Pass, Texas, will have an export capacity of 18.1 million tonnes per annum (“MTA”) of LNG. This terminal will consist of a natural gas pretreatment system, a liquefaction unit, and utilities and other supporting facilities. To facilitate the receipt and delivery of natural gas supply to the proposed Export Terminal, the following facilities are proposed to be built at the Export Terminal site:

- An approximate two-mile long pipeline from the Kinder Morgan’s Natural Gas Pipeline Company of America (“KM-NGPL”) interconnect to the export terminal in Jefferson County, Texas; and
- The KM-NGPL Lateral Compressor Station (milepost [“MP”] 1) in Jefferson County, Texas.

The proposed Export Terminal Pretreatment System is comprised of the following activities:

Acid Gas Removal (AGR) – The Acid Gas Removal Unit (“AGRU”) uses an amine-based solvent and is designed to reduce the CO₂ and H₂S content of the feed gas via an AGR absorber column. The gas treated by the AGR absorber column flows into a Rich Amine Flash Separator. The flash gas from this separator, containing mostly hydrocarbons, is used as low-pressure fuel (LP Fuel) for the thermal oxidizers. The rich amine is then heated by a steam-heated reboiler and is sent to the Amine Regenerator where the CO₂ is stripped out. The CO₂-free stream is cooled and pumped back to the AGR absorber. The CO₂ stream from the Amine Regenerator is further processed in the H₂S Scavenger and Thermal Oxidizer.

H₂S Scavenger and Thermal Oxidizer – The CO₂ stream from the Amine Regenerator contains a small amount of H₂S which is chemically removed by a liquid scavenger in the H₂S Scavenger unit. This stream, with the H₂S mostly removed, is then routed to a Thermal Oxidizer where any remaining traces of H₂S and hydrocarbons are incinerated prior to discharge to the atmosphere.

Dehydration – The CO₂-free stream exiting the AGR absorber is saturated with water. The dehydration process includes cooling this stream and processing this stream through a dehydration section containing molecular sieve desiccants.

Mercury Removal – During the Pretreatment Process, mercury is removed via HgSIV adsorbent. The HgSIV is co-located with the dehydrator molecular sieves.

Heavy Hydrocarbon (“HC”) Removal – This unit uses adsorption technology to remove heavy hydrocarbons that may freeze in the main cryogenic heat exchanger at the LNG liquefaction temperatures. Molecular sieve adsorbents are used for HC removal, with a regeneration process resulting in HC condensate that is recovered and stored in the HC Condensate Storage Tank. A truck loading facility associated with the storage tank is provided for HC condensate shipment offsite. Vent gas from condensate truck loading is routed to the thermal oxidizer for control.

The Liquefaction Process consists of the following:

Liquefaction - The Air Products and Chemicals, Inc. (“APCI”) propane pre-cooled, mixed refrigerant (“C3MR”) process is used for liquefaction. In this process, the treated gas feed is first pre-cooled in successive stages of propane coolers. Subsequent cooling and liquefaction is achieved by heat exchange against mixed refrigerant (“MR”) and is accomplished in the Main Cryogenic Heat Exchanger (“MCHE”). The MR itself needs to be pre-cooled/partially condensed prior to entering the MCHE.

The refrigeration for this pre-cooling/condensation is also provided by multiple stages of evaporating propane. The propane refrigeration is provided by a closed-loop system. The refrigerant is progressively depressurized in four (4) pressure levels to chill/partially condense the natural gas feed and the MR, as described above. The MR system is also a closed-loop design, including nitrogen, methane, ethylene, and propane as the main components.

The liquefaction process includes an end flash system, which allows for a small increase in LNG production, and also produces low pressure end-flash gas for subsequent compression and use as high-pressure fuel (HP Fuel) for the gas turbines. A cold recovery exchanger is provided to recover refrigeration from the cold end-flash gas. Further enhancement of liquefaction efficiency is achieved by incorporating hydraulic turbines (“liquid expanders”) for pressure let-down of the LNG and the liquid MR exiting the MCHE. LNG exiting the end-flash system is pumped and sent to the existing LNG Storage Tanks.

Each of the three (3) proposed liquefaction trains is sized to produce enough LNG to support the export of about 6 MTA, to give a total export capacity of 18.1 MTA for the three-train Export Project.

Compressors – For each of the three (3) trains, the refrigeration power for the propane and MR compressors are provided by two (2) mechanical drive GE Frame 7 gas turbines, each of which is assisted by electric helper motors. There are four (4) refrigeration compressors in total: one (1) propane compressor with four (4) stages, one (1) low-pressure MR compressor, one (1) medium-pressure MR compressor, and one (1) high-pressure MR compressor. One (1) turbine drives the four-stage propane compressor and the high-pressure MR compressor. The second turbine drives the low-pressure and medium-pressure MR compressors.

LNG Storage and Loading – The existing five (5) LNG storage tanks and two (2) existing docks will be used for the LNG storage and loading. The maximum loading rate from the Export Project is expected to be 14,000 m³/hr.

LNG Circulation System - All significant lengths of LNG filled lines will have LNG circulating in them at all times in order to maintain a cold condition.

Vapor Handling - All boil-off gas generated from heat leak into lines and tanks, rundown pump inefficiency, and vapor displacement in the ship, will be recovered and compressed for use as high pressure fuel. Three (3) new electric centrifugal compressors will be added for this purpose. Typically, all three (3) compressors will be in operation when a ship is being loaded. Other operations typically will use two (2) compressors.

The Utilities and Other Supporting Facilities consists of the following:

Steam Generation and Condensate Recovery - High Pressure (“HP”) steam is generated in the Heat Recovery Steam Generation (“HRSG”) units by recovering heat from the exhaust flue gas from the Gas Turbines used to drive the refrigeration compressors. The HRSGs are located in the individual liquefaction trains, with two (2) HRSGs per train and a total of six (6) HRSGs for the entire liquefaction plant. HP steam is generated at a pressure of 1800 psig. The LP steam is generated at 60 psig from Steam Turbine Generator (STG) extraction or a HP to LP letdown station. The generated steam meets steam demand for:

- Power Production
- Process Users

While HP and LP steam are generated in the individual trains, the steam condensate recovery takes place partly in the individual trains and partly in the Liquefaction Facility Utilities area. The recovered steam condensate is sent to the overall steam condensate collection tank in the Utilities area. Recovered condensate is mixed with makeup demineralized water, sent to deaerators, and subsequently pumped as Boiler Feed Water (“BFW”) to the HRSGs, thus completing the cycle.

The facility will also include an auxiliary boiler to supply steam if needed during startup. The auxiliary boiler will generate steam at a medium pressure (“MP”) of 600 psig and will feed the trains via the HP steam header during startup as well as the Utilities area as needed. In normal operation, the auxiliary boiler will be off and the MP steam header will be isolated from the HP steam header. The auxiliary boiler may be fired for up to 1,440 hours per year to support startup activities.

Electric Power Generation – Power will be generated utilizing HP steam to drive STGs. STGs will be located in each train and use HP steam to generate electric power. The exhaust from the STG will be condensed via a surface condenser and the condensate pumped to a recovered condensate tank. The power generation capacity of each STG is 100 MW. The liquefaction facility internal power grid will be connected to the utility power grid (Entergy) for back-up power demand in case of a trip of an individual STG as well as for startup power demand.

Fuel Gas - Fuel Gas will be generated within the trains and distributed to all the users within the trains and in the Utilities area. The fuel gas system consists of two (2) different headers collecting and distributing fuel gas at two different pressure levels. HP fuel gas will be about 400 psig and LP fuel gas will be about 70 psig. HP fuel gas is produced by a combination of boil-off gas from LNG storage, end flash gas from End Flash Gas drum, and makeup from treated feed gas. HP Fuel is consumed by the gas turbine (“GT”) drivers for the Propane Refrigeration compressors and the MR compressors. LP fuel gas is produced by a combination of Rich Amine Flash Gas from the AGRU and let-down from the HP fuel gas header. LP fuel is consumed by the HRSGs for supplemental firing, by the thermal oxidizers, and for purging the flare headers as well as for the flare pilots.

Relief and Flare System - The Export Terminal flare system is designed to safely collect and dispose of a range of streams with different physical properties at various conditions which may be generated during normal operation of the facility and in emergency flaring situations.

The flare system is designed to dispose of the maximum anticipated vapor release during a process unit or site-wide emergency, taking into account all operating modes of the process units, including startup and shutdown. The operation of the flare system will be independent of the operation of any process unit.

The flare system consists of the following and supports operation of the three (3) LNG trains:

- One (1) Wet/Dry Gas Ground Flare - The wet gas portion of the ground flare receives streams from the plant prior to liquefaction that could contain water vapor and condensable hydrocarbons. The dry gas portion of the ground flare receives streams from the cryogenic section of the plant which contain no water vapor. The ground flare is a non-assisted flare. This ground flare will serve all three (3) trains.
- LNG Storage LP Flare – This flare will be used for control of inert ship purging. The LNG Storage LP Flare is an air-assisted flare.

The Export Terminal will be equipped with four (4) direct-fired thermal oxidizers designed as horizontal forced – draft units. Three (3) units will be fired to support the three (3) liquefaction trains and the fourth unit will be available as a hot-standby. Each thermal oxidizer is designed to operate at 1500 °F and a minimum residence time of 1.0 second under the design operating conditions. The high operating temperature, residence time, and turbulent mixing created by the waste gas injection method combine to oxidize the combustible components of the waste streams, specifically acid gas, condensate tank vent and compressor seal gas.

The thermal oxidizer temperature is controlled by modulating the combustion air damper based on the combustion air requirements of the fuel gas and the feed gas. Combustion air and acid gas preheaters are used to recover energy from the flue gas.

Essential Generators – There will be eight (8) essential generators on-site. These sources will be diesel fired and will be used for backup and emergency purposes. The MP 1 Compressor Station consists of the following:

- Electric drive compressors
- Condensate storage tank and loading operation
- Oily water tank
- Blowdown vent

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: None

Major Source Pollutants

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

Major Pollutants	VOC, PM, 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
- Appendix B
 - Copies of major NSR authorizations

General Terms and Conditions

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

Special Terms and Conditions

Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting. The TCEQ has designated certain applicable requirements as site-wide requirements. A site-wide requirement is a requirement that applies uniformly to all the units or activities at the site. Units with only site-wide requirements are addressed on Form OP-REQ1 and are not required to be listed separately on an 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 is based on data supplied by the applicant on the OP-SUM and various OP-UA forms.

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

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

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

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

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

Appendix A

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

Appendix B

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

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

The site contains stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) and constructed after January 31, 1972 which are limited, over a six-minute average, to 20% opacity as required by 30 TAC § 111.111(a)(1)(B). As a site may have a large number of stationary vents that fall into this category, they are not required to be listed individually in the permit's Applicable Requirements 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 Requirements 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)	Yes
Nonattainment New Source Review (NNSR)	No
Minor NSR	Yes
40 CFR Part 60 - New Source Performance Standards	Yes
40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)	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	Yes
CSAPR (Cross-State Air Pollution Rule)	No
Federal Implementation Plan for Regional Haze (Texas SO ₂ Trading Program)	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 and Emission Units

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:

De Minimis Sources

1. Sources identified in the "De Minimis Facilities or Sources" list maintained by TCEQ. The list is available at https://www.tceq.texas.gov/permitting/air/newsourcereview/de_minimis.html.

Miscellaneous Sources

2. Office activities such as photocopying, blueprint copying, and photographic processes.
3. Outdoor barbecue pits, campfires, and fireplaces.
4. Storage and handling of sealed portable containers, cylinders, or sealed drums.
5. Vehicle exhaust from maintenance or repair shops.
6. 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).
7. 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.
8. 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.
9. Storage of water that has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
10. Well cellars.
11. 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.
12. Equipment used exclusively for the melting or application of wax.
13. Instrument systems utilizing air, natural gas, nitrogen, oxygen, carbon dioxide, helium, neon, argon, krypton, and xenon.
14. Battery recharging areas.

Sources Authorized by 30 TAC Chapter 106, Permits by Rule

15. Sources authorized by §106.102: Combustion units designed and used exclusively for comfort heating purposes employing liquid petroleum gas, natural gas, solid wood, or distillate fuel oil.
16. Sources authorized by §106.122: 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.
17. Sources authorized by §106.141: Batch mixers with rated capacity of 27 cubic feet or less for mixing cement, sand, aggregate, lime, gypsum, additives, and/or water to produce concrete, grout, stucco, mortar, or other similar products.
18. Sources authorized by §106.143: Wet sand and gravel production facilities that obtain material from subterranean and subaqueous beds where the deposits of sand and gravel are consolidated granular materials resulting from natural disintegration of rock and stone and have a production rate of 500 tons per hour or less.

19. Sources authorized by §106.148: Railcar or truck unloading of wet sand, gravel, aggregate, coal, lignite, and scrap iron or scrap steel (but not including metal ores, metal oxides, battery parts, or fine dry materials) into trucks or other railcars for transportation to other locations.
20. Sources authorized by §106.149: Sand and gravel production facilities that obtain material from deposits of sand and gravel consisting of natural disintegration of rock and stone, provided that crushing or breaking operations are not used and no blasting is conducted to obtain the material.
21. Sources authorized by §106.161: Animal feeding operations which confine animals in numbers specified and any associated on-site feed handling and/or feed millings operations, not including caged laying and caged pullet operations.
22. Sources authorized by §106.162: Livestock auction sales facilities.
23. Sources authorized by §106.163: All animal racing facilities, domestic animal shelters, zoos, and their associated confinement areas, stables, feeding areas, and waste collection and treatment facilities, other than incineration units.
24. Sources authorized by §106.229: Equipment used exclusively for the dyeing or stripping of textiles.
25. Sources authorized by §106.241: Any facility where animals or poultry are slaughtered and prepared for human consumption provided that waste products such as blood, offal, and feathers are stored in such a manner as to prevent the creation of a nuisance condition and these waste products are removed from the premises daily or stored under refrigeration.
26. Sources authorized by §106.242: Equipment used in eating establishments for the purpose of preparing food for human consumption.
27. Sources authorized by §106.243: Smokehouses in which the maximum horizontal inside cross-sectional area does not exceed 100 square feet.
28. Sources authorized by §106.244: Ovens, mixers, blenders, barbecue pits, and cookers if the products are edible and intended for human consumption.
29. Sources authorized by §106.266: Vacuum cleaning systems used exclusively for industrial, commercial, or residential housekeeping purposes.
30. Sources authorized by §106.301: Aqueous fertilizer storage tanks.
31. Sources authorized by §106.313: 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.
32. Sources authorized by §106.316: Equipment used for inspection of metal products.
33. Sources authorized by §106.317: Equipment used exclusively for rolling, forging, pressing, drawing, spinning, or extruding either hot or cold metals by some mechanical means.
34. Sources authorized by §106.318: Die casting machines.
35. Sources authorized by §106.319: Foundry sand mold forming equipment to which no heat is applied.
36. Sources authorized by §106.331: Equipment used exclusively to package pharmaceuticals and cosmetics or to coat pharmaceutical tablets.
37. Sources authorized by §106.333: Equipment used exclusively for the mixing and blending of materials at ambient temperature to make water-based adhesives.
38. Sources authorized by §106.372: 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.
39. Sources authorized by §106.391: Presses used for the curing of rubber products and plastic products.
40. Sources authorized by §106.394: Equipment used for compression molding and injection molding of plastics.
41. Sources authorized by §106.414: Equipment used exclusively for the packaging of lubricants or greases.
42. Sources authorized by §106.415: Laundry dryers, extractors, and tumblers used for fabrics cleaned with water solutions of bleach or detergents.
43. Sources authorized by §106.431: Equipment used exclusively to mill or grind coatings and molding compounds where all materials charged are in paste form.
44. Sources authorized by §106.432: Containers, reservoirs, or tanks used exclusively for dipping operations for coating objects with oils, waxes, or greases where no organic solvents, diluents, or thinners are used; or dipping operations for applying coatings of natural or synthetic resins which contain no organic solvents.
45. Sources authorized by §106.451: Blast cleaning equipment using a suspension of abrasives in water.
46. Sources authorized by §106.453: Equipment used for washing or drying products fabricated from metal or glass, provided no volatile organic materials are used in the process and no oil or solid fuel is burned.
47. Sources authorized by §106.471: Equipment used exclusively to store or hold dry natural gas.
48. Sources authorized by §106.531: Sewage treatment facilities, excluding combustion or incineration equipment, land farms, or grease trap waste handling or treatment facilities.

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*
EGEN	30 TAC Chapter 117, Subchapter B	R7105-01	<p>Horsepower Rating = HP is greater than or equal to 300</p> <p>RACT Date Placed in Service = After June 9, 1993 and on or after the final compliance date specified in 30 TAC §§ 117.9000, 117.9010 or 117.9020</p>
EGEN	40 CFR Part 60, Subpart IIII	60IIII-03	<p>Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification after 07/11/2005.</p> <p>Exemptions = The CI ICE is not exempt due to national security, testing at an engine test cell/stand or as a temporary replacement.</p> <p>Service = CI ICE is an emergency engine.</p> <p>Commencing = CI ICE was newly constructed after 07/11/2005</p> <p>Manufacture Date = Date of manufacture was after 04/01/2006.</p> <p>Diesel = Diesel fuel is used.</p> <p>Displacement = Displacement is less than 10 liters per cylinder.</p> <p>Model Year = CI ICE was manufactured in model year 2008.</p> <p>Kilowatts = Power rating is greater than 2237 KW.</p> <p>AECD = The CI ICE is not equipped with auxiliary emission control devices (AECDs) pursuant to the requirements of 40 CFR 1039.665</p> <p>Standard = The emergency CI ICE does not meet the Tier 1, 2, 3, or 4 standards applicable to non-emergency engines (for the same KW and model year)</p> <p>Compliance Option = The CI ICE and control device is installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions.</p>
EGEN	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-01	<p>HAP Source = The site is an area source of hazardous air pollutants as defined in 40 CFR § 63.2</p> <p>Brake HP = Stationary RICE with a brake HP greater than 500 HP.</p> <p>Construction/Reconstruction Date = Commenced construction or reconstruction on or after June 12, 2006.</p>
GRPENG	30 TAC Chapter 117, Subchapter B	R7105-01	<p>Horsepower Rating = HP is greater than or equal to 300</p> <p>RACT Date Placed in Service = After June 9, 1993 and on or after the final compliance date specified in 30 TAC §§ 117.9000, 117.9010 or 117.9020</p>
GRPENG	40 CFR Part 60, Subpart IIII	60IIII-01	<p>Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification after 07/11/2005.</p> <p>Exemptions = The CI ICE is not exempt due to national security, testing at an engine test cell/stand or as a temporary replacement.</p> <p>Service = CI ICE is an emergency engine.</p> <p>Commencing = CI ICE was newly constructed after 07/11/2005</p> <p>Manufacture Date = Date of manufacture was after 04/01/2006.</p> <p>Diesel = Diesel fuel is used.</p> <p>Displacement = Displacement is less than 10 liters per cylinder.</p> <p>Model Year = CI ICE was manufactured in model year 2017 or later.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>Kilowatts = Power rating is greater than 2237 KW.</p> <p>AECD = The CI ICE is not equipped with auxiliary emission control devices (AECDs) pursuant to the requirements of 40 CFR 1039.665</p> <p>Standard = The emergency CI ICE does not meet the Tier 1, 2, 3, or 4 standards applicable to non-emergency engines (for the same KW and model year)</p> <p>Compliance Option = The CI ICE and control device is installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions.</p>
GRPENG	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-01	<p>HAP Source = The site is an area source of hazardous air pollutants as defined in 40 CFR § 63.2</p> <p>Brake HP = Stationary RICE with a brake HP greater than 500 HP.</p> <p>Construction/Reconstruction Date = Commenced construction or reconstruction on or after June 12, 2006.</p>
GRPFWP	30 TAC Chapter 117, Subchapter B	R7105-01	<p>Horsepower Rating = HP is greater than or equal to 300</p> <p>RACT Date Placed in Service = After June 9, 1993 and on or after the final compliance date specified in 30 TAC §§ 117.9000, 117.9010 or 117.9020</p>
GRPFWP	40 CFR Part 60, Subpart IIII	60IIII-02	<p>Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification after 07/11/2005.</p> <p>Exemptions = The CI ICE is not exempt due to national security, testing at an engine test cell/stand or as a temporary replacement.</p> <p>Service = CI ICE is a fire-pump engine, an emergency engine certified to National Fire Protection Association requirements.</p> <p>Commencing = CI ICE was newly constructed after 07/11/2005</p> <p>Manufacture Date = Date of manufacture was after 07/01/2006.</p> <p>Diesel = Diesel fuel is used.</p> <p>Displacement = Displacement is less than 10 liters per cylinder.</p> <p>Model Year = CI ICE was manufactured in model year 2017 or later.</p> <p>Kilowatts = Power rating is greater than 368 KW and less than 450 KW.</p> <p>Standard = The emergency CI ICE does not meet the Tier 1, 2, 3, or 4 standards applicable to non-emergency engines (for the same KW and model year)</p> <p>Compliance Option = The CI ICE and control device is installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions.</p>
GRPFWP	40 CFR Part 63, Subpart ZZZZ	63ZZZZ-01	<p>HAP Source = The site is an area source of hazardous air pollutants as defined in 40 CFR § 63.2</p> <p>Brake HP = Stationary RICE with a brake HP greater than 500 HP.</p> <p>Construction/Reconstruction Date = Commenced construction or reconstruction on or after June 12, 2006.</p>
AMNTK1	30 TAC Chapter 115, Storage of VOCs	R5111-02	<p>Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria.</p> <p>Product Stored = VOC other than crude oil or condensate</p> <p>Storage Capacity = Capacity is greater than 40,000 gallons</p> <p>Tank Description = Tank does not require emission controls</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			True Vapor Pressure = True vapor pressure is less than 1.0 psia
AMNTK1	40 CFR Part 60, Subpart Kb	60KB-02	Product Stored = Volatile organic liquid Storage Capacity = Capacity is greater than or equal to 39,890 gallons (151,000 liters) WW Tank Control = The storage vessel is not using 40 CFR 63, subpart WW to comply with 40 CFR 60, subpart Kb Maximum True Vapor Pressure = True vapor pressure is less than 0.5 psia
CTK	30 TAC Chapter 115, Storage of VOCs	R5111-07	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = Crude oil and/or condensate Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 40,000 gallons Tank Description = Tank using a submerged fill pipe True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia
CTK	40 CFR Part 60, Subpart Kb	60KB-09	Product Stored = Petroleum (other than crude oil) or condensate stored, processed, and/or treated after custody transfer Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
CTK	40 CFR Part 60, Subpart OOOOa	60OOOOa-02	Construction/Modification Date = After September 18, 2015 Subject to Another Regulation = The storage vessel is not subject to and controlled in accordance with the requirements in 40 CFR part 60, subpart Kb, or 40 CFR part 63, subparts G, CC, HH or WW PTE = Potential for VOC emissions is less than 6 tpy
DSLTK1	30 TAC Chapter 115, Storage of VOCs	R5111-02	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 40,000 gallons Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia
DSLTK1	40 CFR Part 60, Subpart Kb	60KB-03	Product Stored = Petroleum liquid (other than petroleum or condensate) Storage Capacity = Capacity is greater than or equal to 39,890 gallons (151,000 liters) WW Tank Control = The storage vessel is not using 40 CFR 63, subpart WW to comply with 40 CFR 60, subpart Kb Maximum True Vapor Pressure = True vapor pressure is less than 0.5 psia
GPLCONTK	30 TAC Chapter 115, Storage of VOCs	R5111-07	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = Crude oil and/or condensate Storage Capacity = Capacity is less than or equal to 1,000 gallons

Unit ID	Regulation	Index Number	Basis of Determination*
GPLCONTK	40 CFR Part 60, Subpart Kb	60KB-09	Product Stored = Petroleum (other than crude oil) or condensate stored, processed, and/or treated after custody transfer Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
GPLCONTK	40 CFR Part 60, Subpart OOOOa	60OOOOa-02	Construction/Modification Date = After September 18, 2015 Subject to Another Regulation = The storage vessel is not subject to and controlled in accordance with the requirements in 40 CFR part 60, subpart Kb, or 40 CFR part 63, subparts G, CC, HH or WW PTE = Potential for VOC emissions is less than 6 tpy
GRPTNK1	30 TAC Chapter 115, Storage of VOCs	R5111-03	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia
GRPTNK1	40 CFR Part 60, Subpart Kb	60KB-08	Product Stored = Petroleum liquid (other than petroleum or condensate) Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
GRPTNK2	30 TAC Chapter 115, Storage of VOCs	R5111-03	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons Tank Description = Tank does not require emission controls True Vapor Pressure = True vapor pressure is less than 1.0 psia
GRPTNK2	40 CFR Part 60, Subpart Kb	60KB-06	Product Stored = Volatile organic liquid Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
GRPTNK3	30 TAC Chapter 115, Storage of VOCs	R5111-03	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = Other than crude oil, condensate, or VOC
GRPTNK3	40 CFR Part 60, Subpart Kb	60KB-07	Product Stored = Stored product other than volatile organic liquid or petroleum liquid
GRPTNK4	30 TAC Chapter 115, Storage of VOCs	R5111-06	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is less than or equal to 1,000 gallons

Unit ID	Regulation	Index Number	Basis of Determination*
GRPTNK4	40 CFR Part 60, Subpart Kb	60KB-08	Product Stored = Petroleum liquid (other than petroleum or condensate) Storage Capacity = Capacity is less than 10,600 gallons (40,000 liters)
HCCONDTK	30 TAC Chapter 115, Storage of VOCs	R5111-01	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = Crude oil and/or condensate Storage Capacity = Capacity is greater than 40,000 gallons Tank Description = Tank using a vapor recovery system (VRS) True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia Control Device Type = Direct-flame incinerator
HCCONDTK	40 CFR Part 60, Subpart Kb	60KB-01	Product Stored = Petroleum (other than crude oil) or condensate stored, processed, and/or treated after custody transfer Storage Capacity = Capacity is greater than or equal to 39,890 gallons (151,000 liters) WW Tank Control = The storage vessel is not using 40 CFR 63, subpart WW to comply with 40 CFR 60, subpart Kb Maximum True Vapor Pressure = True vapor pressure is greater than or equal to 0.75 psia but less than 11.1 psia Storage Vessel Description = CVS and control device other than a flare (fixed roof)
HCCONDTK	40 CFR Part 60, Subpart OOOOa	60OOOOa-01	Construction/Modification Date = After September 18, 2015 Subject to Another Regulation = The storage vessel is subject to and controlled in accordance with the requirements in 40 CFR part 60, subpart Kb, or 40 CFR part 63, subparts G, CC, HH or WW
SLOPTK	30 TAC Chapter 115, Storage of VOCs	R5111-09	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 1,000 gallons but less than or equal to 25,000 gallons Tank Description = Tank using a vapor recovery system (VRS) True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia Control Device Type = Direct-flame incinerator
SLOPTK	40 CFR Part 60, Subpart Kb	60KB-05	Product Stored = Volatile organic liquid Storage Capacity = Capacity is greater than or equal to 19,813 gallons but less than 39,890 gallons (capacity is greater than 75,000 liters but less than or equal to 151,000 liters) WW Tank Control = The storage vessel is not using 40 CFR 63, subpart WW to comply with 40 CFR 60, subpart Kb Maximum True Vapor Pressure = True vapor pressure is greater than or equal to 4.0 psia but less than 11.1 psia Storage Vessel Description = CVS and control device other than a flare (fixed roof)
TANK1	30 TAC Chapter 115, Storage of VOCs	R5111-05	Alternate Control Requirement = Not using an alternate method for demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria. Product Stored = VOC other than crude oil or condensate Storage Capacity = Capacity is greater than 25,000 gallons but less than or equal to 40,000 gallons

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>Tank Description = Tank does not require emission controls</p> <p>True Vapor Pressure = True vapor pressure is less than 1.0 psia</p>
TANK1	40 CFR Part 60, Subpart Kb	60KB-04	<p>Product Stored = Petroleum liquid (other than petroleum or condensate)</p> <p>Storage Capacity = Capacity is greater than or equal to 19,813 gallons but less than 39,890 gallons (capacity is greater than 75,000 liters but less than or equal to 151,000 liters)</p> <p>WW Tank Control = The storage vessel is not using 40 CFR 63, subpart WW to comply with 40 CFR 60, subpart Kb</p> <p>Maximum True Vapor Pressure = True vapor pressure is less than 2.2 psia</p>
DISCONNECT	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-04	<p>Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.</p> <p>Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.</p> <p>Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.</p> <p>Transfer Type = Only unloading.</p> <p>True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia.</p> <p>Chapter 115 Control Device Type = No control device.</p> <p>Vapor Tight = All liquid and vapor lines are equipped with fittings which make vapor-tight connections that close automatically when disconnected.</p>
DSLUNLOAD	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-03	<p>Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.</p> <p>Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.</p> <p>Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.</p> <p>Transfer Type = Only unloading.</p> <p>True Vapor Pressure = True vapor pressure less than 0.5 psia.</p>
GRPCNTRL	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-01	<p>Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.</p> <p>Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.</p> <p>Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.</p> <p>Transfer Type = Only loading.</p> <p>True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia.</p> <p>Daily Throughput = Loading less than 20,000 gallons per day.</p>
GRPLVPLD	30 TAC Chapter 115, Loading and Unloading of VOC	R5211-02	<p>Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal.</p> <p>Alternate Control Requirement (ACR) = No alternate control requirements are being utilized.</p> <p>Product Transferred = Volatile organic compounds other than liquefied petroleum gas and gasoline.</p> <p>Transfer Type = Loading and unloading.</p> <p>True Vapor Pressure = True vapor pressure less than 0.5 psia.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
GRPHTR	30 TAC Chapter 117, Subchapter B	R7103-01	<p>Unit Type = Process heater</p> <p>Maximum Rated Capacity = MRC is greater than or equal to 200 MMBtu/hr</p> <p>RACT Date Placed in Service = On or after the final compliance date specified in 30 TAC §§ 117.9000, 117.9010 or 117.9020(1).</p>
AXBL	30 TAC Chapter 117, Subchapter B	R7105-01	<p>Unit Type = Other industrial, commercial, or institutional boiler.</p> <p>Maximum Rated Capacity = MRC is greater than or equal to 250 MMBtu/hr.</p> <p>RACT Date Placed in Service = On or after the final compliance date specified in 30 TAC § 117.9000.</p>
AXBL	40 CFR Part 60, Subpart Db	60DB-01	<p>Construction/Modification Date = Constructed or reconstructed after February 28, 2005.</p> <p>Heat Input Capacity = Heat input capacity is greater than 250 MMBtu/hr (73 MW).</p> <p>Subpart Da = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da.</p> <p>Changes to Existing Affected Facility = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281.</p> <p>Subpart Ea, Eb or AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA.</p> <p>Subpart KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK.</p> <p>Subpart Cb or BBBB = The affected facility is not covered by an EPA approved State or Federal section 111(d)/129 plan implementing 40 CFR Part 60, Subpart Cb or BBBB emission guidelines.</p> <p>D-Series Fuel Type #1 = Natural gas.</p> <p>Subpart J = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J.</p> <p>Subpart E = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E.</p> <p>ACF Option - SO₂ = Other ACF or no ACF.</p> <p>ACF Option - PM = Other ACF or no ACF.</p> <p>ACF Option - NO_x = Other ACF or no ACF.</p> <p>60.42b(k)(2) Low Sulfur Exemption = The § 60.42b(k)(2) exemption applies.</p> <p>Electrical or Mechanical Output = 10% or less of the annual output is electrical or mechanical.</p> <p>60.49Da(n) Alternative = The facility is not using the § 60.49Da(n) alternative.</p> <p>60.49Da(m) Alternative = The facility is not using the § 60.49Da(m) alternative.</p> <p>PM Monitoring Type = No particulate monitoring.</p> <p>Opacity Monitoring Type = No particulate (opacity) monitoring.</p> <p>NO_x Monitoring Type = Continuous emission monitoring system.</p> <p>SO₂ Monitoring Type = Fuel certification (maintaining receipts per § 60.49b(r)(1)).</p> <p>Technology Type = No emerging or conventional technology is used to reduce or control SO₂ emissions</p> <p>Unit Type = OTHER UNIT TYPE</p> <p>Heat Release Rate = Natural gas with a heat release rate less than or equal to 70 MBtu/hr/ft³.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
			Heat Input Gas/Oil = The facility combusts natural gas or distillate oil in excess of 30% of the heat input from the combustion of all fuels.
GRPHRSG	30 TAC Chapter 117, Subchapter B	R7105-01	Unit Type = Other industrial, commercial, or institutional boiler. Maximum Rated Capacity = MRC is greater than or equal to 250 MMBtu/hr. RACT Date Placed in Service = On or after the final compliance date specified in 30 TAC § 117.9000.
GRPHRSG	40 CFR Part 60, Subpart Db	60DB-02	Construction/Modification Date = Constructed or reconstructed after February 28, 2005. Heat Input Capacity = Heat input capacity is greater than 250 MMBtu/hr (73 MW). Subpart Da = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da. Changes to Existing Affected Facility = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281. Subpart Ea, Eb or AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA. Subpart KKKK = The affected facility is a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK.
GRPHTR	40 CFR Part 60, Subpart Db	60DB-01	Construction/Modification Date = Constructed or reconstructed after February 28, 2005. Heat Input Capacity = Heat input capacity is greater than 250 MMBtu/hr (73 MW). Subpart Da = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da. Changes to Existing Affected Facility = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281. Subpart Ea, Eb or AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA. Subpart KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK. Subpart Cb or BBBB = The affected facility is not covered by an EPA approved State or Federal section 111(d)/129 plan implementing 40 CFR Part 60, Subpart Cb or BBBB emission guidelines. D-Series Fuel Type #1 = Natural gas. Subpart J = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J. Subpart E = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E. ACF Option - SO ₂ = Other ACF or no ACF. ACF Option - PM = Other ACF or no ACF. ACF Option - NO _x = Other ACF or no ACF. 60.42b(k)(2) Low Sulfur Exemption = The § 60.42b(k)(2) exemption applies. Electrical or Mechanical Output = 10% or less of the annual output is electrical or mechanical. 60.49Da(n) Alternative = The facility is not using the § 60.49Da(n) alternative. 60.49Da(m) Alternative = The facility is not using the § 60.49Da(m) alternative.

Unit ID	Regulation	Index Number	Basis of Determination*
			PM Monitoring Type = No particulate monitoring. Opacity Monitoring Type = No particulate (opacity) monitoring. NOx Monitoring Type = Continuous emission monitoring system. SO2 Monitoring Type = Fuel certification (maintaining receipts per § 60.49b(r)(1)). Technology Type = No emerging or conventional technology is used to reduce or control SO2 emissions Unit Type = OTHER UNIT TYPE Heat Release Rate = Natural gas with a heat release rate less than or equal to 70 MBtu/hr/ft ³ . Heat Input Gas/Oil = The facility combusts natural gas or distillate oil in excess of 30% of the heat input from the combustion of all fuels.
FLRL	30 TAC Chapter 111, Visible Emissions	R1111-01	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.
FLRL	40 CFR Part 60, Subpart A	60A-01	Subject to 40 CFR § 60.18 = Flare is not subject to 40 CFR § 60.18.
FLRL	40 CFR Part 63, Subpart A	63A-01	Required Under 40 CFR Part 63 = Flare is not required by a Subpart under 40 CFR Part 63.
WDFLR	30 TAC Chapter 111, Visible Emissions	R1111-01	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.
WDFLR	40 CFR Part 60, Subpart A	60A-01	Subject to 40 CFR § 60.18 = Flare is not subject to 40 CFR § 60.18.
WDFLR	40 CFR Part 63, Subpart A	63A-01	Required Under 40 CFR Part 63 = Flare is not required by a Subpart under 40 CFR Part 63.
GRPTBN	30 TAC Chapter 117, Subchapter B	R7110-01	Megawatt Rating = MR is greater than or equal to 30 MW. RACT Date Placed in Service = On or after the final compliance date specified in 30 TAC §§ 117.9000, 117.9010 or 117.9020.
GRPTBN	40 CFR Part 60, Subpart KKKK	60KKKK-01	Unit Type = Combined Cycle Combustion Turbine Construction/Modification Date = Turbine was constructed after February 18, 2005. Heat Input = Turbine has a heat input at peak load of 850 MMBtu/hr or greater. Subject to Da = The combustion turbine is not located at an integrated gasification combined cycle electric utility steam generating unit subject to Subpart Da of Part 60. Service Type = Service other than emergency service, as defined in § 60.4420(i), or research and development. NOx Standard = The parts per million NO _x emission standard in Table 1 is being used. Fuel Type = 100% natural gas. 75% of Peak = The combustion turbine does not operate at less than 75% of peak load or at temperatures less than zero degrees F.

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>NO_x Control = NO_x emissions are not being controlled by steam or water injection.</p> <p>NO_x Monitoring = A diluent NO_x CEMS is used.</p> <p>Common Steam Header = A steam header with one or more combustion turbines is utilized.</p> <p>Duct Burner = The heat recovery system includes a duct burner.</p> <p>Location = The turbine is not located in a noncontinental area nor in a continental area for which the Administrator has determined does not have access to natural gas and that the removal of sulfur compounds would do more environmental harm than benefit.</p> <p>SO₂ Standard = The heat input based SO₂ emission standard in § 60.4330(a)(2) or (a)(3) is being used.</p> <p>Fuel Monitoring = All fuels used are demonstrated not to exceed the potential emissions standard in § 60.4365.</p> <p>Fuel Quality = Fuel is demonstrated not to exceed emission standard by characteristics in purchase contract or tariff sheet.</p> <p>Performance Test = Maximum sulfur content of fuels combusted is specified with a purchase contract, tariff sheet, transportation contract, or historical 12-month sulfur and GCV sampling data</p>
FUG	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	R5352-001	Title 30 TAC § 115.352 Applicable = Not a pet. refinery, a synth. org. chem., polymer, resin, or methyl-tert-butyl ether mfg proc., a natural gas/gasoline proc. operation, a marine term. subject to §115.214(a)(3)(F), or a gasoline term. complying with §115.214(a)(2) or (b)(2)
MP1COMP	40 CFR Part 60, Subpart OOOOa	600000a-001	<p>Construction/Reconstruction/Modification Date = After September 18, 2015</p> <p>Centrifugal Compressor = Centrifugal compressor using dry seals</p>
MP1FUG	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	R5352-001	Title 30 TAC § 115.352 Applicable = Not a pet. refinery, a synth. org. chem., polymer, resin, or methyl-tert-butyl ether mfg proc., a natural gas/gasoline proc. operation, a marine term. subject to §115.214(a)(3)(F), or a gasoline term. complying with §115.214(a)(2) or (b)(2)
MP1FUG	40 CFR Part 60, Subpart OOOOa	600000a-001	<p>Construction/Modification Date = After September 18, 2015</p> <p>Fugitive Component = Collection of fugitive components located at a compressor station</p> <p>AMEL = Not complying with an AMEL</p>
BLWDWN	30 TAC Chapter 115, Vent Gas Controls	R5122-03	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration or Emission Rate at Maximum Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
GRPTBN	30 TAC Chapter 111, Visible Emissions	R1111-01	Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.

Unit ID	Regulation	Index Number	Basis of Determination*
			<p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>
GRPTOHDR	30 TAC Chapter 115, Vent Gas Controls	R5122-02	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is greater than 100 pounds (45.4 kg).</p> <p>VOC Concentration = VOC concentration is greater than or equal to 612 ppmv.</p> <p>Alternate Control Requirement = Alternate control is not used.</p> <p>Control Device Type = Direct flame incinerator in which the vent gas stream is burned at a temperature or at least 1300° F (704 C).</p>
LABVENT1	30 TAC Chapter 115, Vent Gas Controls	R5122-03	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration or Emission Rate at Maximum Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>
LABVENT2	30 TAC Chapter 115, Vent Gas Controls	R5122-03	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is less than or equal to 100 pounds (45.4 kg).</p> <p>VOC Concentration or Emission Rate at Maximum Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.</p>

Unit ID	Regulation	Index Number	Basis of Determination*
WDFLRHDR	30 TAC Chapter 115, Vent Gas Controls	R5122-01	<p>Chapter 115 Division = The vent stream does not originate from a source for which another Division in 30 TAC Chapter 115 establishes a control requirement, emission specification, or exemption for that source.</p> <p>Combustion Exhaust = The vent stream is not from a combustion unit exhaust or the combustion unit is used as a control device for a vent stream originating from a noncombustion source subject to 30 TAC Chapter 115, Subchapter B, Division 2.</p> <p>Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.</p> <p>Combined 24-Hour VOC Weight = Combined VOC weight is greater than 100 pounds (45.4 kg).</p> <p>VOC Concentration = VOC concentration is greater than or equal to 612 ppmv.</p> <p>Alternate Control Requirement = Alternate control is not used.</p> <p>Control Device Type = Smokeless flare</p>

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

NSR Versus Title V FOP

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

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

NSR Permit	Federal Operating Permit (FOP)
Issued Prior to new Construction or modification of an existing facility	For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.
Authorizes air emissions	Codifies existing applicable requirements, does not authorize new emissions
Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented.	Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.
Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.	One public notice required. Opportunity for public comments. No contested case hearings.
Applies to all point source emissions in the state.	Applies to all major sources and some non-major sources identified by the EPA.
Applies to facilities: a portion of site or individual emission sources	One or multiple FOPs cover the entire site (consists of multiple facilities)
Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.	Permits include terms and conditions that specify the general operational requirements of the site; and 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.	FOPs 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. In addition, many of the permits are accessible online through the link provided below. 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. Permit by Rule (PBR) registrations submitted by permittees are also available online through the link provided below. The following table specifies the PBRs that apply to the site.

The status of air permits, applications, and PBR registrations may be found by performing the appropriate search of the databases located at the following website:

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

Details on how to search the databases are available in the **Obtaining Permit Documents** section below.

New Source Review Authorization References

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: GHGPSDTX100	Issuance Date: 09/11/2015
PSD Permit No.: PSDTX1386	Issuance Date: 08/25/2022
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.: 73647	Issuance Date: 02/27/2015
Authorization No.: 116055	Issuance Date: 08/25/2022
Permits by Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.122	Version No./Date: 09/04/2000
Number: 106.352	Version No./Date: 11/22/2012
Number: 106.511	Version No./Date: 09/04/2000

Permits by Rule

The TCEQ has interpreted the emission limits prescribed in 30 TAC §106.4(a) as both emission thresholds and default emission limits. The emission limits in 30 TAC §106.4(a) are all considered applicable to each facility as a threshold matter to ensure that the owner/operator qualifies for the PBR authorization. Those same emission limits are also the default emission limits if the specific PBR does not further limit emissions or there is no lower, certified emission limit claimed by the owner/operator.

This interpretation is consistent with how TCEQ has historically determined compliance with the emission limits prior to the addition of the “as applicable” language. The “as applicable” language was added in 2014 as part of changes to the sentence structure in a rulemaking that made other changes to address greenhouse gases and was not intended as a substantive rule change. This interpretation also provides for effective and practical enforcement of 30 TAC §106.4(a), since for the TCEQ to effectively enforce the emission limits in 30 TAC §106.4(a) as emission thresholds, all emission limits must apply. As provided by 30 TAC §106.4(a)(2) and (3), an owner/operator shall not claim a PBR authorization if the facility is subject to major New Source Review. The practical and legal effect of the language in 30 TAC § 106.4 is that if a facility does not emit a pollutant, then the potential to emit for that particular pollutant is zero, and thus, the facility is not authorized to emit the pollutant pursuant to the PBR.

The permit holder is required to keep records for demonstrating compliance with PBRs in accordance with 30 TAC § 106.8 for the following categories:

- As stated in 30 TAC § 106.8(a), the permit holder is not required to keep records for de minimis sources as designated in 30 TAC § 116.119.
- As stated in 30 TAC § 106.8(b) for PBRs on the insignificant activities list, the permit holder is required to provide information that would demonstrate compliance with the general requirements of 30 TAC § 106.4.
- As stated in 30 TAC § 106.8(c) for all other PBRs, the permit holder must maintain sufficient records to demonstrate compliance with the general requirements specified in 30 TAC § 106.4 and to demonstrate compliance with the emission limits and any specific conditions of the PBR as applicable.

The application, or a previously submitted application, contains a PBR Supplemental Table. This table provides supplemental information for all PBR authorizations at the site or application area, including PBRs that are not listed on the OP-REQ1 form. PBRs that are not listed on the OP-REQ1 form authorize emission units that the TCEQ has determined are insignificant sources of emissions (IEUs). PBRs are enforceable through permit condition number 10. The EPA gives States broad discretion in prescribing monitoring, recordkeeping, and reporting for generally applicable requirements that cover insignificant emission units. (see EPA *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program*). Federal regulations specifically identify recordkeeping as an appropriate level of monitoring necessary to assure compliance with the requirements applicable to an emissions unit. Permitting authorities have the best sense of where it is appropriate to conclude that periodic monitoring is not necessary for IEUs, when state program rules already provide sufficient monitoring for these units.

In the case of IEUs in particular, the recordkeeping in 30 TAC §106.8 is sufficient because the units do not have the potential to violate emission limitations or other requirements under normal operating conditions. In particular, where the establishment of a regular program of monitoring would not significantly enhance the ability of the permit to assure compliance with the applicable requirement, the permitting authority can provide that the applicable requirement has monitoring sufficient to yield reliable data that is representative of the emission unit's compliance with the limitations. Therefore, for IEUs compliance with 30 TAC §106.8 is sufficient to meet federal monitoring requirements.

The PBR records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, or parametric monitoring. The PBR records also satisfy the federal operating permit periodic monitoring requirements of 30 TAC § 122.142(c) as they are representative of the emission unit's compliance with 30 TAC Chapter 106.

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

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.: GRPTOHR	
Control Device ID No.: TO1	Control Device Type: Thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Control Device ID No.: TO2	Control Device Type: thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Control Device ID No.: TO3	Control Device Type: thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Control Device ID No.: TO4	Control Device Type: thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5122-02
Pollutant: VOC	Main Standard: § 115.122(a)(1)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: once per day	
Averaging Period: N/A	
Deviation Limit: Minimum Temperature = A minimum combustion temperature of 1500°F shall be maintained before establishing a minimum combustion temperature using the most recent performance test or stack testing data.	
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 temperature for thermal incinerators. This minimum temperature must be maintained in order for the proper destruction efficiency. Operation below the minimum combustion temperature will result in incomplete combustion and potential noncompliance with emission limitations and/or standards. The monitoring of the combustion temperature of a thermal incinerator 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 G, R, DD, EE, and HH; and 30 TAC Chapter 115.	

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.: CTK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5111-07
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Record of Tank Construction Specifications	
Minimum Frequency: n/a	
Averaging Period: n/a	
Deviation Limit: Record of tank construction specifications.	
Basis of monitoring: The periodic monitoring option provided for emission units using a submerged fill pipe is location of the submerged fill pipe and structural integrity of the pipe. The location and the integrity of the pipe ensure that loading operations are controlled to prevent splash fill and reduce generated vapors; therefore, less emissions are released to the atmosphere.	

Unit/Group/Process Information	
ID No.: CTK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5111-07
Pollutant: VOC	Main Standard: § 115.112(a)(1)
Monitoring Information	
Indicator: Structural Integrity of the Pipe	
Minimum Frequency: Emptied and degassed	
Averaging Period: n/a	
Deviation Limit: Repairs are not made to fill pipe prior to refilling the storage tank.	
Basis of monitoring: The periodic monitoring option provided for emission units using a submerged fill pipe is location of the submerged fill pipe and structural integrity of the pipe. The location and the integrity of the pipe ensure that loading operations are controlled to prevent splash fill and reduce generated vapors; therefore, less emissions are released to the atmosphere.	

Unit/Group/Process Information	
ID No.: GRPTBN	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-01
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per week	
Averaging Period: n/a	
Deviation Limit: Visible emissions observed	
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.	

Unit/Group/Process Information	
ID No.: HCCONDTK	
Control Device ID No.: TO1	Control Device Type: Thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Control Device ID No.: TO2	Control Device Type: thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Control Device ID No.: TO3	Control Device Type: thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Control Device ID No.: TO4	Control Device Type: thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60KB-01
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature.	
Minimum Frequency: once per day	
Averaging Period: N/A	
Deviation Limit: A minimum combustion temperature of 1500°F shall be maintained before establishing a minimum combustion temperature using the most recent performance test or stack testing data.	
Basis of monitoring: It is widely practiced and accepted to use performance tests, manufacturer's recommendations, engineering calculations and/or historical data to establish a minimum temperature for thermal incinerators. This minimum temperature must be maintained in order for the proper destruction efficiency. Operation below the minimum combustion temperature will result in incomplete combustion and potential noncompliance with emission limitations and/or standards. The monitoring of the combustion temperature of a thermal incinerator 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 G, R, DD, EE, and HH; and 30 TAC Chapter 115.	

Unit/Group/Process Information	
ID No.: HCCONDTK	
Control Device ID No.: TO1	Control Device Type: Vapor collection system (closed vent system)
Control Device ID No.: TO2	Control Device Type: vapor collection system (closed vent system)
Control Device ID No.: TO3	Control Device Type: vapor collection system (closed vent system)
Control Device ID No.: TO4	Control Device Type: vapor collection system (closed vent system)
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60KB-01
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: A deviation shall be reported if the applicant fails to measure and record the fugitive emissions from the vapor collection system annually.	
Basis of monitoring: It is widely practiced and accepted to monitor the VOC concentration at the outlet of a control device by use of a portable analyzer with procedures such as EPA Test Method 25A or a VOC CEMS. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Outlet VOC concentration has been used as an indicator of VOC emissions in many federal rules including 40 CFR Part 60, Subpart III, 40 CFR Part 60, Subpart NNN, 40 CFR Part 60, Subpart RRR, 40 CFR Part 61, Subpart BB, 40 CFR Part 61, Subpart FF, 40 CFR Part 63, Subpart R, 40 CFR Part 63, Subpart DD, and 40 CFR Part 63, Subpart HH.	

Unit/Group/Process Information	
ID No.: HCCONDTK	
Control Device ID No.: TO1	Control Device Type: Vapor collection system (closed vent system)
Control Device ID No.: TO2	Control Device Type: vapor collection system (closed vent system)
Control Device ID No.: TO3	Control Device Type: vapor collection system (closed vent system)
Control Device ID No.: TO4	Control Device Type: vapor collection system (closed vent system)
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60KB-01
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: A deviation shall be reported if the applicant fails to perform a visual inspection annually.	
Basis of monitoring: It is widely practiced and accepted to use work practice as a monitoring option to demonstrate compliance. Preventive maintenance and visual inspections of control equipment, as recommended by the manufacturer, conducted by the owner or operator can ensure that the unit is operating properly. The work practice requirements prescribe that preventive maintenance and/or visual inspections be performed and recorded in a log. This option assures that the owner or operator is adequately maintaining the control equipment.	

Unit/Group/Process Information	
ID No.: SLOPTK	
Control Device ID No.: TO1	Control Device Type: Thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Control Device ID No.: TO2	Control Device Type: thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Control Device ID No.: TO3	Control Device Type: thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Control Device ID No.: TO4	Control Device Type: thermal incinerator (direct flame incinerator/regenerative thermal oxidizer)
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60KB-05
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: once per day	
Averaging Period: N/A	
Deviation Limit: Minimum Temperature = A minimum combustion temperature of 1500°F shall be maintained before establishing a minimum combustion temperature using the most recent performance test or stack testing data.	
Basis of monitoring: It is widely practiced and accepted to use performance tests, manufacturer's recommendations, engineering calculations and/or historical data to establish a minimum temperature for thermal incinerators. This minimum temperature must be maintained in order for the proper destruction efficiency. Operation below the minimum combustion temperature will result in incomplete combustion and potential noncompliance with emission limitations and/or standards. The monitoring of the combustion temperature of a thermal incinerator 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 G, R, DD, EE, and HH; and 30 TAC Chapter 115.	

Unit/Group/Process Information	
ID No.: SLOPTK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60KB-05
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: A deviation shall be reported if the applicant fails to measure and record the fugitive emissions from the vapor collection system annually.	
Basis of monitoring: It is widely practiced and accepted to monitor the VOC concentration at the outlet of a control device by use of a portable analyzer with procedures such as EPA Test Method 25A or a VOC CEMS. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard. Outlet VOC concentration has been used as an indicator of VOC emissions in many federal rules including 40 CFR Part 60, Subpart III, 40 CFR Part 60, Subpart NNN, 40 CFR Part 60, Subpart RRR, 40 CFR Part 61, Subpart BB, 40 CFR Part 61, Subpart FF, 40 CFR Part 63, Subpart R, 40 CFR Part 63, Subpart DD, and 40 CFR Part 63, Subpart HH.	

Unit/Group/Process Information	
ID No.: SLOPTK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60KB-05
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: A deviation shall be reported if the applicant fails to perform a visual inspection annually.	
Basis of monitoring: It is widely practiced and accepted to use work practice as a monitoring option to demonstrate compliance. Preventive maintenance and visual inspections of control equipment, as recommended by the manufacturer, conducted by the owner or operator can ensure that the unit is operating properly. The work practice requirements prescribe that preventive maintenance and/or visual inspections be performed and recorded in a log. This option assures that the owner or operator is adequately maintaining the control equipment.	

Obtaining Permit Documents

The New Source Review Authorization References table in the FOP specifies all NSR authorizations that apply at the permit area covered by the FOP. Individual NSR permitting files are located in the TCEQ Central File Room (TCEQ Main Campus located at 12100 Park 35 Circle, Austin, Texas, 78753, Building E, Room 103). They can also be obtained electronically from TCEQ's Central File Room Online (<https://www.tceq.texas.gov/goto/cfr-online>). Guidance documents that describe how to search electronic records, including Permits by Rule (PBRs) or NSR permits incorporated by reference into an FOP, archived in the Central File Room server are available at https://www.tceq.texas.gov/permitting/air/nav/air_status_permits.html

All current PBRs are contained in Chapter 106 and can be viewed at the following website:

https://www.tceq.texas.gov/permitting/air/permitbyrule/air_pbr_index.html

Previous versions of 30 TAC Chapter 106 PBRs may be viewed at the following website:

www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html

Historical Standard Exemption lists may be viewed at the following website:

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

Additional information concerning PBRs is available on the TCEQ website:

https://www.tceq.texas.gov/permitting/air/nav/air_pbr.html

Compliance Review

1. In accordance with 30 TAC Chapter 60, the compliance history was reviewed on **May 23, 2024.**

Site rating: Unclassified Company rating: 0.00 / High

(High < 0.10; Satisfactory ≥ 0.10 and ≤ 55; Unsatisfactory > 55)

2. Has the permit changed on the basis of the compliance history or site/company rating?No

Site/Permit Area Compliance Status Review

1. Were there any out-of-compliance units listed on Form OP-ACPS?No

2. Is a compliance plan and schedule included in the permit?No

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-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 - 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
OP-UA64 - Coal Preparation Plant Attributes