Statement of Basis of the Federal Operating Permit

Formosa Plastics Corporation, Texas

Site Name: Formosa Point Comfort Plant
Area Name: PE3 Plant
Physical Location: 201 Formosa Drive
Nearest City: Point Comfort
County: Calhoun

Permit Number: O4166
Project Type: Significant Revision

The North American Industry Classification System (NAICS) Code: 325110
NAICS Name: Petrochemical Manufacturing

This Statement of Basis sets forth the legal and factual basis for the draft changes to the permit conditions resulting from the significant revision project in accordance with 30 TAC §122.201(a)(4). The applicant has submitted an application for a significant permit revision per §§ 122.219-221. This document may include the following information:

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

Prepared on: May 15, 2025

Operating Permit
Basis of Determination

Description of Revisions

With this project, the following changes were made to the permit:

1. Revised fugitive component count and emissions for Unit ID PE3-13. Updated existing manual builds for 40 CFR Part 60 Subpart DDD and 40 CFR Part 63 Subpart FFFF.
2. Added a new flare and flare vent (Unit IDs PE3-15 and VENTPE3-15) with associated applicable requirements.
3. Added a new Unit ID VNTHEX-02 associated with 40 CFR Part 60 Subpart DDD and 40 CFR Part 63 Subpart FFFF.
4. Updated existing cooling tower Unit ID PE3-12 by adding 30 TAC Chapter 111 applicability and periodic monitoring requirements.
5. Updated 40 CFR Part 63 Subpart FFFF applicability for Unit IDs PE3-10 and PE3 UNIT.
6. Added a new Unit ID PE3-SVD with 40 CFR Part 63 Subpart FFFF negative applicability.
7. Replaced 40 CFR Part 63 Subpart F permit shield with Subpart FFFF permit shield for Unit ID PE3 HTXCHG.
8. Updated 40 CFR Part 63 Subpart FFFF applicability for Unit ID VENTPE3-10.
9. Added a new permit shield for 30 TAC Chapter 115 for Unit IDs PE3-15, VENTPE3-15, VNTHEX-02, and VENTPE3-10.
10. Updated NSR 127838/PSDTX1588M1 issuance date and Major NSR Summary Table.
11. Added AMOC No. 66 to permit.

Permit Area Process Description

The PE3 Plant produces different grades of polyethylene product. The process utilizes a low pressure, gas phase polymerization process. This process includes raw material purification, polymerization, powder degassing, pellet extrusion, resin handling, cooling tower, vent collecting system, and storage tanks. The major sections of the PE3 Plant are described below in detail.

Raw Material Purification Raw materials are received either from neighboring units or from outside of the Complex. Raw materials pass through stripping columns and treating beds to remove dissolved gas, water and other impurities, and then are injected into the reactor. Gaseous raw materials (ethylene, hydrogen, and nitrogen) pass through treating beds to remove trace amounts of impurities before entering the reactor.

Polymerization This process utilizes both dry, sand-like catalyst and slurry type catalyst. Dry catalyst is periodically transferred by nitrogen from a dry catalyst bin to dry catalyst feeders. Nitrogen is released to atmosphere through a filter (FIN/EPN: PE3-01).

A metal alkyl, which serves as a co-catalyst for certain grades of PE resin, is received in cylinders and nitrogen is used to push the metal alkyl to the feed pot where it is injected into the reactor. Ethylene, comonomer and hydrogen are then fed into the reactor. In the presence of catalyst, polymerization occurs inside the fluidized bed reactor. Inside the cycle gas cooler, the shell side contains cooling water and the tube side contains cycle gas (under high pressure).

Powder Degassing Polyethylene powder is discharged from the reactor to product chambers, then into the powder purge bin. Nitrogen is supplied to the powder purge bin to remove residual VOC. The powder purge bin is equipped with a rupture disc which, in case of an emergency and for safety reasons, discharges directly to the atmosphere at a safe location. If this emergency vent stream was routed to flare, powder could plug the flare line, resulting in unsafe conditions. The entrained gas and the purge nitrogen vent through a filter at the top of the powder purge bin and to a vent recovery system used to recover comonomer. In the recovery system, the gas stream is compressed and condensed. Condensed comonomer is pumped back to the reactor. Compressed gas is used to convey powder from product chambers to the powder purge bin.

After the product purge bin, powder is dropped by gravity to an enclosed powder sieve to separate oversized material. From the sieve, powder is dropped to a powder surge hopper equipped with a filter (FIN/EPN: PE3-03). Remaining gas is vented to atmosphere after the filter.

Pellet Extrusion Powder from the surge hopper is dropped to a powder feeder by gravity and thence to the extruder. The vent from the powder feeder is equipped with a bagfilter (FIN/EPN: PE3-04). A variety of additives are fed into the extruder as well. Additives are first loaded into additive hoppers, then dropped to additive feeders, then fed to the extruder. Additive hoppers are under nitrogen purge to prevent degradation. Vents from the additive hoppers are collected and filtered before being discharged to atmosphere (FIN/EPN: PE3-05). A special additive, called “Anti-block”, is stored in an Anti-block hopper.

While feeders are periodically refilled, the vents from the feeders must be vented to a system with very low back pressure so that the feeding accuracy is not affected. Therefore, all the vent streams from feeders are routed to another bagfilter

(FIN/EPN: PE3-06). Polyethylene powder and additives are mixed in the screw conveyor then fed to the extruder feed hopper. This extruder feed hopper is controlled by a bagfilter as well (FIN/EPN: PE3-14).
Polymer and additives are conveyed, mixed, and melted in the extruder and from there polymer is pushed through a die plate to form polymer strands which are cut into pellets in an underwater cutting box. Water returns back to the water tank and pellets are further dried centrifugally in the pellet dryer. The air stream containing high moisture content and trace amount of VOC and particulate matter is vented to atmosphere through a cyclone (FIN/EPN: PE3-07).
Resin Handling After pellet drying, pellets are conveyed by air into product silos. The conveying or blending air passes through bagfilters before venting to the atmosphere (FIN/EPN: PE3-08A, PE3-08B). From the product silos, pellets are again air-transferred to two loading station elutriators. Exhausts from the elutriators are controlled by cyclones (FIN/EPN: PE3-02A, PE3-02B). Pellets are then transferred by air from the elutriators to rail cars.
Cooling Tower One cooling tower (FIN/EPN: PE3-12) provides process cooling water to the PE3 Plant and new Hexene Plant (permitted under separate NSR and PSD permits). This cooling tower consists of several counter-flow type cells with mechanical draft. Gaseous chlorine is used as a biocide.
Process Vent Collection and Control System All vent streams containing VOCs, except those described above, are collected in the vent collection system and routed to a control device (thermal oxidizer or flare) for control. The high-pressure header, including reactor blowdown, safety relief valve discharges, and large equipment purge vents during MSS activities is discharged to the flare system (EPNs: PE3-10, PE3-15), with 99% (C1-C3) / 98% (C4+) VOC control. This current system consists of a high-pressure header routed to a flare (FIN/EPN: PE3-10) and a low-pressure header routed to two thermal oxidizers (FIN/EPN: PE3-11A, PE3-11B). In future operations the PE3 high pressure vent stream can be routed to the PE3 Plant flare system, which includes either the new EGF (EPN: PE3-15) and/or the existing elevated flare (EPN: PE3-10).
The low-pressure header accommodates low volume, low pressure, and continuous vents and is typically discharged to thermal oxidizers for 99.9% control of VOC. In future operations the PE3 low pressure vent stream can be routed to either (1) the PE3 Plant flare system which includes the new EGF (EPN: PE3-15) and/or the existing elevated flare (EPN: PE3-10), (2) the existing PE3 thermal oxidizers (EPNs: PE3-11A, PE3-11B), and/or (3) the new Hexene Plant's thermal oxidizer (EPN: HEX-02).
Storage Tanks Butene, isopentane, and hexene are stored in pressurized storage tanks.

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: O1484, O1951, O1953, O1954, O1955, O1956, O1957, O1958, O3409, O3421, O4165, O4212, O4286, O4293

Major Source Pollutants

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

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

Reading State of Texas's Federal Operating Permit

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

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

- General Terms and Conditions

- Special Terms and Conditions
    - Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting
    - Additional Monitoring Requirements
    - New Source Review Authorization Requirements
    - Compliance Requirements
    - Protection of Stratosphere Ozone
    - Permit Location
    - Permit Shield (30 TAC § 122.148)
- Attachments
    - Applicable Requirements Summary
        - Unit Summary
        - Applicable Requirements Summary
    - Additional Monitoring Requirements
    - Permit Shield
    - New Source Review Authorization References
    - Compliance Plan
    - Alternative Requirements
- Appendix A
    - Acronym list
- 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*	Changes and Exceptions to DSS**
PE3-10	40 CFR Part 63, Subpart FFFF	63FFFF-4	Unit Type = Flare	The rule citations were determined from an analysis of the rule text and the basis of determination.
PE3-15	40 CFR Part 63, Subpart FFFF	63FFFF-4	Unit Type = Enclosed Ground Flare	The rule citations were determined from an analysis of the rule text and the basis of determination.
VENTPE3-15	40 CFR Part 60, Subpart DDD	60DDD-1	Unit Type = Vent To Enclosed Ground Flare For equipment subject to 40 CFR Part 63, Subpart FFFF that is also subject to 40 CFR Part 60, Subpart DDD, the permit holder may elect to apply 40 CFR Part 63, Subpart FFFF to all such equipment. Compliance as described in §63.2535(h) will constitute compliance with 40 CFR Part 60, Subpart DDD.	The rule citations were determined from an analysis of the rule text and the basis of determination.
VNTHEX-02	40 CFR Part 60, Subpart DDD	60DDD-1	Unit Type = Vent To Hexene Plant Thermal Oxidizer For equipment subject to 40 CFR Part 63, Subpart FFFF that is also subject to 40 CFR Part 60, Subpart DDD, the permit holder may elect to apply 40 CFR Part 63, Subpart FFFF to all such equipment. Compliance as described in §63.2535(h) will constitute compliance with 40 CFR Part 60, Subpart DDD.	The rule citations were determined from an analysis of the rule text and the basis of determination.
PE3-10	30 TAC Chapter 111, Visible Emissions	R1111-1	Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions.	
PE3-10	40 CFR Part 60, Subpart A	60A-1	Subject to 40 CFR § 60.18 = Flare is subject to 40 CFR § 60.18. Adhering to Heat Content Specifications = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4)(i)-(iii) or (c)(5). Flare Assist Type = Steam-assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).	
PE3-10	40 CFR Part 63, Subpart A	63A-1	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Steam assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
PE3-10	40 CFR Part 63, Subpart CC	63FFFF-4	Flare Control Device = Flare controls a source subject to another 40 CFR Part 60, 61, or 63 subpart which allows or requires compliance with § 63.670. Operating Limits = Flare complies with operating parameters and values in § 63.670(d)-(f) Flare Tip Velocity = Flare tip velocity is greater than or equal to 60 ft/s but less than 400 ft/s Perimeter Assist Air = Flare does not receive perimeter assist air	
PE3-15	30 TAC Chapter 111, Visible Emissions	R1111-1	Acid Gases Only = Flare is not used only as an acid gas flare as defined in 30 TAC § 101.1. Emergency/Upset Conditions Only = Flare is used under conditions other than emergency or upset conditions.	
PE3-15	40 CFR Part 60, Subpart A	60A-1	Subject to 40 CFR § 60.18 = Flare is subject to 40 CFR § 60.18. Adhering to Heat Content Specifications = Adhering to the heat content specifications in 40 CFR § 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR § 60.18(c)(4)(i)-(iii) or (c)(5). Flare Assist Type = Non-assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).	
PE3-15	40 CFR Part 63, Subpart A	63A-1	Required Under 40 CFR Part 63 = Flare is required by a Subpart under 40 CFR Part 63. Heat Content Specification = Adhering to the heat content specifications in 40 CFR § 63.11(b)(6)(ii) and the maximum tip velocity specifications in 40 CFR § 63.11(b)(7) or 40 CFR § 63.11(b)(8). Flare Assist Type = Non-assisted Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec). Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).	
PE3-15	40 CFR Part 63, Subpart CC	63FFFF-4	Flare Control Device = Flare controls a source subject to another 40 CFR Part 60, 61, or 63 subpart which allows or requires compliance with § 63.670. Operating Limits = Flare complies with operating parameters and values in § 63.670(d)-(f) Flare Tip Velocity = Flare tip velocity is greater than or equal to 60 ft/s but less than 400 ft/s Perimeter Assist Air = Flare does not receive perimeter assist air	
PE3-13	40 CFR Part 60, Subpart DDD	60DDD-4	MANUFACTURED PRODUCT = Polypropylene or polyethylene	-- Affected Pollutant - VOC/TOC:

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			CONTINUOUS PROCESS [NSPS DDD] = The affected facility process is a continuous process 40 CFR 60 (NSPS) SUBPART DDD CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE = After January 10, 1989 VOC Service = Some of the equipment comes into contact with a fluid containing < 10% by weight VOC. 40 CFR 60 (NSPS) SUBPART DDD DESIGN CAPACITY = Facility has a design capacity to produce greater than or equal to 1,000 Mg/yr EQUIPMENT IN VACUUM SERVICE = The fugitive unit does not contain equipment in vacuum service VOC SERVICE LESS THAN 300 HOURS = The owner or operator did not designate the equipment as being in VOC service less than 300 hours per year. PUMPS IN LIGHT LIQUID SERVICE [NSPS DDD] = PUMPS IN LIGHT LIQUID SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT. EQUIVALENT EMISSION LIMITATION (EEL)--PUMPS LIGHT LIQUID SERVICE [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL). COMPLYING WITH § 60.482-2 = NO FLANGES AND OTHER CONNECTORS (ANY SERVICE) [NSPS DDD] = FLANGES OR CONNECTORS IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT. EQUIVALENT EMISSION LIMITATION (EEL)--FLANGES AND OTHER CONNECTORS [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL). COMPLYING WITH § 60.482-8 = NO COMPRESSORS (ANY SERVICE) [NSPS DDD] = COMPRESSORS IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT. EQUIVALENT EMISSION LIMITATION (EEL)--COMPRESSORS [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL). COMPLYING WITH § 60.482-3 = NO PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE [NSPS DDD] = PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT. LIGHT LIQUID AND HEAVY LIQUID SERVICE = Fugitive unit contains pressure relief devices in light liquid or heavy liquid service addressed in 40 CFR Part 60, Subpart DDD EEL = No equivalent emission limitation is used for pressure relief devices in light liquid or heavy liquid service COMPLYING WITH § 60.482-8 = NO SAMPLING CONNECTION SYSTEMS (ANY SERVICE) [NSPS DDD] = SAMPLING CONNECTION SYSTEMS IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT. EQUIVALENT EMISSION LIMITATION (EEL)--SAMPLING CONNECTION SYSTEMS [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL).	Deleted the NSPS DDD citations in the permit, because applicant is complying with NSPS DDD by complying with MACT FFFF. Added citation § 63.2535(h) for the use of MON (FFFF) in compliance for NSPS DDD, to the main standard, monitoring/testing, recordkeeping and reporting columns.

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			COMPLYING WITH § 60.482-5 = NO VALVES IN GAS/VAPOR OR LIGHT LIQUID SERVICE [NSPS DDD] = VALVES IN GAS/VAPOR OR LIGHT LIQUID SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT. 2.0% = The owner or operator is not electing to comply with an allowable percentage of valves leaking of equal to or less than 2.0%. EQUIVALENT EMISSION LIMITATION (EEL)--VALVES GAS/VAPOR, LIGHT LIQUID SVC [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL). COMPLYING WITH § 60.482-7 = NO OPEN-ENDED VALVES OR LINES (ANY SERVICE) [NSPS DDD] = OPEN-ENDED VALVES OR LINES IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT. EQUIVALENT EMISSION LIMITATION (EEL)--OPEN-ENDED VALVES OR LINES [NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL). COMPLYING WITH § 60.482-6 = NO CLOSED VENT SYSTEMS AND CONTROL DEVICES (ANY SERVICE) [NSPS DDD] = CLOSED VENT SYSTEM AND CONTROL DEVICES IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT. EQUIVALENT EMISSION LIMITATION (EEL)-[NSPS DDD] = NOT USING EQUIVALENT EMISSION LIMITATION (EEL). COMPLYING WITH §60.482-10 = NO VAPOR RECOVERY SYSTEM = NOT USING A VAPOR RECOVERY SYSTEM FOR CONTROL ENCLOSED COMBUSTION DEV. = NOT USING AN ENCLOSED COMBUSTION DEVICE FOR CONTROL FLARE = USING A FLARE FOR CONTROL EEL = NOT USING EQUIVALENT EMISSION LIMITATION (EEL). COMPLYING WITH §60.482-10 = NO	
PE3-13	40 CFR Part 63, Subpart FFFF	63FFFF-3	Existing Source = Fugitive unit contains equipment in a new Miscellaneous Chemical Processing Unit.	-- Affected Pollutant - VOC/TOC: The rule citations were determined from an analysis of the rule text and the basis of determination. The applicant is opting to comply with 40 CFR Part 63 Subpart UU allowed by Subpart FFFF.
PE3-12	40 CFR Part 63, Subpart Q	63Q-1	Used Compounds Containing Chromium on or After September 8, 1994 = The industrial process cooling tower has not used compounds containing chromium on or after September 8, 1994.	
PE3-12	30 TAC Chapter 111, Visible Emissions	R1111-2	Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113. Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3). Construction Date = After January 31, 1972 Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.	
VENTPE3-10	40 CFR Part 63, Subpart FFFF	63FFFF-1	Emission Standard = The TRE index is not maintained above the threshold (5.0 for a new source and 1.9 for an existing source) and a flare is being used for control. Designated Grp1 = The emission stream is designated as Group 1. Designated Hal = The emission stream is not designated as halogenated. Determined Hal = The emission stream is determined to be non-halogenated. Prior Eval = The data from a prior evaluation or assessment is not used. Assessment Waiver = The Administrator has not granted a waiver of compliance assessment or a waiver has not been requested. Negative Pressure = The closed vent system is operated and maintained at or above atmospheric pressure. Bypass Line = No bypass lines.	-- Affected Pollutant - VOC/TOC: These are new flare citations from the August 12, 2020, amendment that are not yet included in the DSS. Therefore, the changes were made as follows: Related Standard: Added [G]§ 63.2450(e)(5), [G]§ 63.2450(e)(6), § 63.2450(k)(8), [G]§ 63.670 Monitoring/Testing: Added [G]§ 63.2450(e)(5), [G]§ 63.2450(e)(6), § 63.2450(k)(8), [G]§ 63.670, [G]§ 63.671 Recordkeeping: Added § 63.2450(e)(5)(xii), § 63.2450(k)(7), [G]§ 63.2525(m), § 63.2525(n) Reporting: Added § 63.2450(e)(5)(iv), § 63.2450(e)(5)(xi), § 63.2520(a)-Table 11.1, § 63.2520(a)-Table 11.2, § 63.2520(a)-Table 11.3, § 63.2520(d)(3), [G]§ 63.2520(e)(11), § 63.2520(e)(12)
VENTPE3-15	40 CFR Part 63, Subpart FFFF	63FFFF-1	Emission Standard = The TRE index is not maintained above the threshold (5.0 for a new source and 1.9 for an existing source) and a flare is being used for control. Designated Grp1 = The emission stream is designated as Group 1. Designated Hal = The emission stream is not designated as halogenated. Determined Hal = The emission stream is determined to be non-halogenated. Prior Eval = The data from a prior evaluation or assessment is not used. Assessment Waiver = The Administrator has not granted a waiver of compliance assessment or a waiver has not been requested. Negative Pressure = The closed vent system is operated and maintained at or above atmospheric pressure. Bypass Line = No bypass lines.	-- Affected Pollutant - 112(B) HAPS: The rule was amended on August 12, 2020, and the new citations not yet included in the DSS. Therefore, the citations were added as follows: Related Standard: Added [G]§ 63.2450(e)(5), [G]§ 63.2450(e)(6), § 63.2450(k)(8), [G]§ 63.670 Monitoring/Testing: Added [G]§ 63.2450(e)(5), [G]§ 63.2450(e)(6), § 63.2450(k)(8), [G]§ 63.670, [G]§ 63.671 Recordkeeping: Added § 63.2450(e)(5)(xii), § 63.2450(k)(7), [G]§ 63.2525(m), § 63.2525(n) Reporting: Added § 63.2450(e)(5)(iv), § 63.2450(e)(5)(xi), § 63.2520(a)-Table 11.1, § 63.2520(a)-Table 11.2, § 63.2520(a)-Table 11.3, § 63.2520(d)(3), [G]§ 63.2520(e)(11), § 63.2520(e)(12)
VNTHEX-02	40 CFR Part 63, Subpart FFFF	63FFFF-2	Emission Standard = The TRE index is not maintained above the threshold (5.0 for a new source and 1.9 for an existing source) and a non-flare CD is being used to meet a ppmv standard per § 63.2455(a) - Table 1.1.a.i. Designated Grp1 = The emission stream is designated as Group 1.	-- Affected Pollutant - 112(B) HAPS: The rule was amended on August 12, 2020, and the new citations not yet included in the DSS. Therefore, the citations were added as follows:

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			Small Device = A small control device (defined in § 63.2550) is being used. 1257A1 = No design evaluation as specified in § 63.1257(a)(1) is being conducted. Alt 63SS Mon Parameters = Alternate monitoring parameters or requirements have not been approved by the Administrator or have not been requested. CEMS = A CEMS is not used. SS Device Type = Incinerator other than a catalytic incinerator. Meets 63.988(b)(2) = The control device does not meet the criteria in § 63.985(b)(2). Designated Hal = The emission stream is not designated as halogenated. Determined Hal = The emission stream is determined to be non-halogenated. Hal Device Type = No halogen scrubber or other halogen reduction device is used. Prior Eval = The data from a prior evaluation or assessment is not used. Assessment Waiver = The Administrator has not granted a waiver of compliance assessment or no waiver is requested. Formaldehyde = The stream does not contain formaldehyde. Negative Pressure = The closed vent system is operated and maintained at or above atmospheric pressure. Bypass Line = No bypass lines.	Related Standard: Added [G]§ 63.2450(e)(6) Monitoring/Testing: Added [G]§ 63.2450(e)(6) Recordkeeping: Added § 63.2525(n) Reporting: Added § 63.2520(a)-Table 11.1, Table 11.2, and Table 11.3, and § 63.2520(e)(12)
VNTPE3-11A	40 CFR Part 63, Subpart FFFF	63FFFF-2	Emission Standard = The TRE index is not maintained above the threshold (5.0 for a new source and 1.9 for an existing source) and a non-flare CD is being used to meet a ppmv standard per § 63.2455(a) - Table 1.1.a.i. Designated Grp1 = The emission stream is designated as Group 1. Small Device = A small control device (defined in § 63.2550) is being used. 1257A1 = No design evaluation as specified in § 63.1257(a)(1) is being conducted. Alt 63SS Mon Parameters = Alternate monitoring parameters or requirements have not been approved by the Administrator or have not been requested. CEMS = A CEMS is not used. SS Device Type = Incinerator other than a catalytic incinerator. Meets 63.988(b)(2) = The control device does not meet the criteria in § 63.985(b)(2). Designated Hal = The emission stream is not designated as halogenated. Determined Hal = The emission stream is determined to be non-halogenated. Hal Device Type = No halogen scrubber or other halogen reduction device is used. Prior Eval = The data from a prior evaluation or assessment is not used. Assessment Waiver = The Administrator has not granted a waiver of compliance assessment or no waiver is requested. Formaldehyde = The stream does not contain formaldehyde. Negative Pressure = The closed vent system is operated and maintained at or above atmospheric pressure. Bypass Line = No bypass lines.	-- Affected Pollutant - 112(B) HAPS: The rule was amended on August 12, 2020, and the new citations not yet included in the DSS. Therefore, the citations were added as follows: Related Standard: Added [G]§ 63.2450(e)(6) Monitoring/Testing: Added [G]§ 63.2450(e)(6) Recordkeeping § 63.2525(n), § 63.2520(a)-Table 11.1, § 63.2520(a)-Table 11.2, § 63.2520(a)-Table 11.3, and § 63.2520(e)(12)

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
VNTPE3-11B	40 CFR Part 63, Subpart FFFF	63FFFF-2	Emission Standard = The TRE index is not maintained above the threshold (5.0 for a new source and 1.9 for an existing source) and a non-flare CD is being used to meet a ppmv standard per § 63.2455(a) - Table 1.1.a.i. Designated Grp1 = The emission stream is designated as Group 1. Small Device = A small control device (defined in § 63.2550) is being used. 1257A1 = No design evaluation as specified in § 63.1257(a)(1) is being conducted. Alt 63SS Mon Parameters = Alternate monitoring parameters or requirements have not been approved by the Administrator or have not been requested. CEMS = A CEMS is not used. SS Device Type = Incinerator other than a catalytic incinerator. Meets 63.988(b)(2) = The control device does not meet the criteria in § 63.985(b)(2). Designated Hal = The emission stream is not designated as halogenated. Determined Hal = The emission stream is determined to be non-halogenated. Hal Device Type = No halogen scrubber or other halogen reduction device is used. Prior Eval = The data from a prior evaluation or assessment is not used. Assessment Waiver = The Administrator has not granted a waiver of compliance assessment or no waiver is requested. Formaldehyde = The stream does not contain formaldehyde. Negative Pressure = The closed vent system is operated and maintained at or above atmospheric pressure. Bypass Line = No bypass lines.	-- Affected Pollutant - 112(B) HAPS: The rule was amended on August 12, 2020, and the new citations not yet included in the DSS. Therefore, the citations were added as follows: Related Standard: Added [G]§ 63.2450(e)(6) Monitoring/Testing: Added [G]§ 63.2450(e)(6) Recordkeeping § 63.2525(n), § 63.2520(a)-Table 11.1, § 63.2520(a)-Table 11.2, § 63.2520(a)-Table 11.3, and § 63.2520(e)(12)
GRP-VENT	40 CFR Part 60, Subpart DDD	60DDD-2	Manufactured Product = Polypropylene or polyethylene. Continuous Process = The affected facility process is continuous. Construction/Modification Date = After January 10, 1989. Experimental Process Line = The affected facility is a production process line. Polyolefin Production = More than one polyolefin is produced. Process Emissions = Individual vent gas streams emit continuous emissions. Uncontrolled Annual Emissions = Uncontrolled annual emissions are less than 1.6 Mg/yr (1.76 tpy). Weight Percent TOC = Weight percent of total organic compounds is less than 0.10%. Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561).	
GRP-VENT	40 CFR Part 60, Subpart DDD	60DDD-3	Manufactured Product = Polypropylene or polyethylene. Continuous Process = The affected facility process is continuous. Construction/Modification Date = After January 10, 1989. Experimental Process Line = The affected facility is a production process line. Polyolefin Production = More than one polyolefin is produced.	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			Process Emissions = Individual vent gas streams emit continuous emissions. Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) or greater. Weight Percent TOC = Weight percent of total organic compounds is less than 0.10%. Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561).	
VENTPE3-10	40 CFR Part 60, Subpart DDD	60DDD-1	Manufactured Product = Polypropylene or polyethylene. Continuous Process = The affected facility process is continuous. Construction/Modification Date = After January 10, 1989. Experimental Process Line = The affected facility is a production process line. Polyolefin Production = More than one polyolefin is produced. Process Emissions = Individual vent gas streams emit continuous emissions. Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) or greater. Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater. Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561). Continuous Control Device = Flare. Annual Emissions Entering the Control Device = Annual emissions entering the control device are greater than or equal to the calculated threshold emissions levels calculated in Table 3. Table 3 Control Requirements = Calculations from Table 3 require controls. Emission Reduction from Control Device = Existing control device (as defined in 40 CFR § 60.561) reduces emissions by 98 percent or greater, or exit concentration is 20 ppmv or less.	-- Affected Pollutant - VOC/TOC: Deleted the NSPS DDD citations in the permit, because applicant is complying with NSPS DDD by complying with MACT FFFF. Added citation § 63.2535(h) for the use of MON (FFFF) in compliance for NSPS DDD, to the main standard, monitoring/testing, recordkeeping and reporting columns.
VNTPE3-11A	40 CFR Part 60, Subpart DDD	60DDD-1	Manufactured Product = Polypropylene or polyethylene. Continuous Process = The affected facility process is continuous. Construction/Modification Date = After January 10, 1989. Experimental Process Line = The affected facility is a production process line. Polyolefin Production = More than one polyolefin is produced. Process Emissions = Individual vent gas streams emit continuous emissions. Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) or greater. Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater. Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561). Continuous Control Device = Incinerator other than a catalytic incinerator.	-- Affected Pollutant - VOC/TOC: Deleted the NSPS DDD citations in the permit, because applicant is complying with NSPS DDD by complying with MACT FFFF. Added citation § 63.2535(h) for the use of MON (FFFF) in compliance for NSPS DDD, to the main standard, monitoring/testing, recordkeeping and reporting columns.

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			Annual Emissions Entering the Control Device = Annual emissions entering the control device are greater than or equal to the calculated threshold emissions levels calculated in Table 3. Table 3 Control Requirements = Calculations from Table 3 require controls. Emission Reduction from Control Device = Existing control device (as defined in 40 CFR § 60.561) reduces emissions by 98 percent or greater, or exit concentration is 20 ppmv or less.	
VNTPE3-11B	40 CFR Part 60, Subpart DDD	60DDD-1	Manufactured Product = Polypropylene or polyethylene. Continuous Process = The affected facility process is continuous. Construction/Modification Date = After January 10, 1989. Experimental Process Line = The affected facility is a production process line. Polyolefin Production = More than one polyolefin is produced. Process Emissions = Individual vent gas streams emit continuous emissions. Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) or greater. Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater. Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561). Continuous Control Device = Incinerator other than a catalytic incinerator. Annual Emissions Entering the Control Device = Annual emissions entering the control device are greater than or equal to the calculated threshold emissions levels calculated in Table 3. Table 3 Control Requirements = Calculations from Table 3 require controls. Emission Reduction from Control Device = Existing control device (as defined in 40 CFR § 60.561) reduces emissions by 98 percent or greater, or exit concentration is 20 ppmv or less.	-- Affected Pollutant - VOC/TOC: Deleted the NSPS DDD citations in the permit, because applicant is complying with NSPS DDD by complying with MACT FFFF. Added citation § 63.2535(h) for the use of MON (FFFF) in compliance for NSPS DDD, to the main standard, monitoring/testing, recordkeeping and reporting columns.
PE3 UNIT	40 CFR Part 63, Subpart FFFF	63FFFF-1	Ammonium Sulfate = The MCPU does not include the manufacture of ammonium sulfate as a by-product, or the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less or 10 ppmw benzene or less. Other Operations = The MCPU includes operations other than those listed in § 63.2435(c). 63.100 CMPU = The MCPU is not a CMPU defined in § 63.100. G2/<1000 lb/yr = The process does not include Group 2 batch process vents and/or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. Startup 2003 = The affected source startup was on or after November 10, 2003. Shared Batch Vent = The MCPU does not include a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63. PUG = The MCPU is not part of a process unit group (PUG). Startup 2002 = The affected source initial startup was on or after April 4, 2002.	-- Affected Pollutant - 112(B) HAPS: The following citations were added because these are new citations from the August 12, 2020 amendment that are not yet included in the DSS. Related Standard: Added § 63.2450(a)(2), § 63.2450(c)(2), [G]§ 63.2450(e)(4), § 63.2450(r), § 63.2450(u), [G]§ 63.2450(v); deleted § 63.2450(a) Monitoring/Testing: Added § 63.2450(g)(6), § 63.2450(g)(7), [G]§ 63.2450(v) Recordkeeping: Added [G]§ 63.2525(l), [G]§ 63.2525(m), § 63.2525(n), [G]§ 63.2525(p); Deleted § 63.2525(c) and § 63.2525(f)

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
			PP Alt = The MCPU is complying with the emission limitations and work practice standards contained in Tables 1 through 7. >1000 lb/yr = The process has uncontrolled hydrogen halide and halogen HAP emissions from process vents of less than 1,000 lb/yr. New Source = The MCPU is a new affected source as described in § 63.2440(c)(1) or (2). HAP Metals = Uncontrolled emissions from process vents are less than 150 lb/yr of HAP metals. Design Eval = Compliance with emission limits is being determined by performance test. Batch Process Vents = The source does not include batch process vents.	Reporting: Added § 63.2520(a)-Table 11.1, § 63.2520(a)-Table 11.2, § 63.2520(a)-Table 11.3, [G]§ 63.2520(e)(14), § 63.2520(f), § 63.2520(g)

* - The “unit attributes” or operating conditions that determine what requirements apply
** - Notes changes made to the automated results from the DSS, and a brief explanation why

NSR Versus Title V FOP

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

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

NSR Permit	Federal Operating Permit (FOP)
Issued Prior to new Construction or modification of an existing facility	For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.
Authorizes air emissions	Codifies existing applicable requirements, does not authorize new emissions
Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented.	Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.
Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.	One public notice required. Opportunity for public comments. No contested case hearings.
Applies to all point source emissions in the state.	Applies to all major sources and some non-major sources identified by the EPA.
Applies to facilities: a portion of site or individual emission sources	One or multiple FOPs cover the entire site (consists of multiple facilities)
Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.	Permits include terms and conditions that specify the general operational requirements of the site; and 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.: PSDTX1588M1	Issuance Date: 09/22/2023
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.: 127838	Issuance Date: 09/22/2023
Authorization No.: 172616	Issuance Date: 05/18/2023

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 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

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.: PE3-12	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-2
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Opacity shall not exceed 15% averaged over a six-minute period for any source having a total flow rate greater than or equal to 100,000 acfm.	
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.	

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 April 3, 2025.
   Site rating: 9.28 / Satisfactory Company rating: 9.21 / Satisfactory
   (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

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