

# Statement of Basis of the Federal Operating Permit

Channel Energy Center, LLC

Site/Area Name: Channel Energy Center  
Physical location: 451 Light Company Road  
Nearest City: Houston  
County: Harris

Permit Number: O2084  
Project Type: Renewal

Standard Industrial Classification (SIC) Code: 4911  
SIC Name: Electric Services

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). Per 30 TAC §§ 122.241 and 243, the permit holder has submitted an application under § 122.134 for permit renewal. 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.

Revised on: February 6, 2014

## Operating Permit Basis of Determination

### Permit Area Process Description

Channel Energy Center LLC consists of three gas-fired combined-cycle combustion turbines, and includes three heat recovery steam generators (HRSGs) that recover the heat from each turbines' exhaust, and to which natural gas and refinery gases are added and burned by three duct burners, to provide supplemental energy to power steam turbines. The site is classified a "cogeneration" facility since it produces steam for off-site uses as well as electricity.

If steam demands cannot be met by the HRSG's, Channel Energy will have three auxiliary boilers to make up the steam demand. The boilers will also be able to fire either natural gas or refinery gas.

There are miscellaneous internal combustion engines, a cooling tower, and smaller sources of emissions scattered around the site that are covered by site-wide requirements.

EPA issued PSDTX955GHG on 11/29/2012 for GHG emissions associated with CTG3/HRSG3, NG-FUG/Fuel Gas Piping and SF6-FUG.

### 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, SO <sub>2</sub> , PM, NO <sub>x</sub> , CO, GHG* |
|------------------|---|

\*PSDTX955GHG

### Reading State of Texas's Federal Operating Permit

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

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

- General Terms and Conditions
- Special Terms and Conditions
  - Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting
  - Additional Monitoring Requirements

- New Source Review Authorization Requirements
- Compliance Requirements
- Protection of Stratosphere Ozone
- Permit Location
- Permit Shield (30 TAC § 122.148)
- Attachments
  - Applicable Requirements Summary
    - Unit Summary
    - Applicable Requirements Summary
  - Additional Monitoring Requirements
  - Permit Shield
  - New Source Review Authorization References
  - Compliance Plan
  - Alternative Requirements
- Appendix A
  - Acronym list
- Appendix B
  - Copies of major NSR authorizations

### General Terms and Conditions

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

### Special Terms and Conditions

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

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

### Attachments

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

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

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

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

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

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

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

## Appendix A

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

## Appendix B

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

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

The site contains stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) and constructed after January 31, 1972 which are limited, over a six-minute average, to 20% opacity as required by

30 TAC § 111.111(a)(1)(B). As a site may have a large number of stationary vents that fall into this category, they are not required to be listed individually in the permit’s Applicable Requirement Summary. This is consistent with EPA’s White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995, that states that requirements that apply identically to emission units at a site can be treated on a generic basis such as source-wide opacity limits.

Periodic monitoring is specified in Special Term and Condition 3.A.(iv) for stationary vents subject to 30 TAC § 111.111(a)(1)(B) to verify compliance with the 20% opacity limit. These vents are not expected to produce visible emissions during normal operation. The TCEQ evaluated the probability of these sources violating the opacity standards and determined that there is a very low potential that an opacity standard would be exceeded. It was determined that continuous monitoring for these sources is not warranted as there would be very limited environmental benefit in continuously monitoring sources that have a low potential to produce visible emissions. Therefore, the TCEQ set the visible observation monitoring frequency for these sources to once per calendar quarter.

The TCEQ has exempted vents that are not capable of producing visible emissions from periodic monitoring requirements. These vents include sources of colorless VOCs, non-fuming liquids, and other materials that cannot produce emissions that obstruct the transmission of light. Passive ventilation vents, such as plumbing vents, are also included in this category. Since this category of vents are not capable of producing opacity due to the physical or chemical characteristics of the emission source, periodic monitoring is not required as it would not yield any additional data to assure compliance with the 20% opacity standard of 30 TAC § 111.111(a)(1)(B).

In the event that visible emissions are detected, either through the quarterly observation or other credible evidence, such as observations from company personnel, the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 TAC § 111.111(a)(1)(B). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours. This will address possible emissions that may arise when switching fuel types.

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

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

**Federal Regulatory Applicability Determinations**

The following chart summarizes the applicability of the principal air pollution regulatory programs to the permit area:

| <b>Regulatory Program</b>   | <b>Applicability (Yes/No)</b> |
|---|-------------------------------|
| Prevention of Significant Deterioration (PSD)                                       | Yes                           |
| Nonattainment New Source Review (NNSR)  | Yes                           |
| Minor NSR   | Yes                           |
| 40 CFR Part 60 - New Source Performance Standards                                   | Yes                           |
| 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs) | No                            |

|  |     |
|--|-----|
| 40 CFR Part 63 - NESHAPs for Source Categories       | Yes |
| Title IV (Acid Rain) of the Clean Air Act (CAA)      | Yes |
| Title V (Federal Operating Permits) of the CAA       | Yes |
| Title VI (Stratospheric Ozone Protection) of the CAA | Yes |
| CAIR (Clean Air Interstate Rule)                     | Yes |

### **Acid Rain Permit**

The permitted area is subject to Federal Clean Air Act Title IV Acid Rain rules for Phase II units, as codified in 40 CFR Parts 72 through 78, because it meets the definition of “affected source.” Applicability of affected sources are defined in 40 CFR § 72.6 and include those sources that burn fossil fuel, and generates electricity for sale. Under 40 CFR Part 72, incorporated by reference into 30 TAC Chapter 122, all acid rain permits must contain specific terms and conditions, including monitoring, reporting, recordkeeping and excess emission requirements, established by the U.S. EPA. The Title IV permitting procedures are described within 30 TAC Chapter 122, Subchapter E. The applicable requirements of the Acid Rain Permit are contained in the Special Terms and Conditions of the FOP. The Acid Rain permit is effective as of the date of the issuance of the FOP and has a term ending in concurrence with the FOP.

### **CAIR Permit**

The Clean Air Interstate Rule (CAIR) was established to mitigate the interstate transport of NO<sub>x</sub> and SO<sub>2</sub> which contribute to the formation of fine particles (PM 2.5) and ground-level ozone. The EPA has promulgated a model cap and trade program in 40 CFR Part 96 to implement CAIR. This rule has been adopted by reference into 30 TAC Chapter 122, Subchapter E, Division 2: Clean Air Interstate Rule.

The permitted area is subject to CAIR as it contains units that meet the definition of a NO<sub>x</sub> budget unit in 40 CFR § 96.4(a)(1)-(2) and a CAIR SO<sub>2</sub> unit in 40 CFR § 96.204(a)(1)-(2). The applicable requirements of the CAIR permit are contained in the Special Terms and Conditions of the FOP. The CAIR permit is effective as of the date of the issuance of this revision and has a term ending in concurrence with the FOP.

### **Insignificant Activities**

In general, units not meeting the criteria for inclusion on either Form OP-SUM or Form OP-REQ1 are not required to be addressed in the operating permit application. Examples of these types of units include, but are not limited to, the following:

1. Office activities such as photocopying, blueprint copying, and photographic processes.
2. Sanitary sewage collection and treatment facilities other than those used to incinerate wastewater treatment plant sludge. Stacks or vents for sanitary sewer plumbing traps are also included.
3. Food preparation facilities including, but not limited to, restaurants and cafeterias used for preparing food or beverages primarily for consumption on the premises.
4. Outdoor barbecue pits, campfires, and fireplaces.
5. Laundry dryers, extractors, and tumblers processing bedding, clothing, or other fabric items generated primarily at the premises. This does not include emissions from dry cleaning systems using perchloroethylene or petroleum solvents.
6. Facilities storing only dry, sweet natural gas, including natural gas pressure regulator vents.
7. Any air separation or other industrial gas production, storage, or packaging facility. Industrial gases, for purposes of this list, include only oxygen, nitrogen, helium, neon, argon, krypton, and xenon.
8. Storage and handling of sealed portable containers, cylinders, or sealed drums.
9. Vehicle exhaust from maintenance or repair shops.

10. Storage and use of non-VOC products or equipment for maintaining motor vehicles operated at the site (including but not limited to, antifreeze and fuel additives).
11. Air contaminant detectors and recorders, combustion controllers and shut-off devices, product analyzers, laboratory analyzers, continuous emissions monitors, other analyzers and monitors, and emissions associated with sampling activities. Exception to this category includes sampling activities that are deemed fugitive emissions and under a regulatory leak detection and repair program.
12. Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including but not limited to, assorted vacuum producing devices and laboratory fume hoods.
13. Steam vents, steam leaks, and steam safety relief valves, provided the steam (or boiler feedwater) has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
14. Storage of water that has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
15. Well cellars.
16. Fire or emergency response equipment and training, including but not limited to, use of fire control equipment including equipment testing and training, and open burning of materials or fuels associated with firefighting training.
17. Crucible or pot furnaces with a brim full capacity of less than 450 cubic inches of any molten metal.
18. Equipment used exclusively for the melting or application of wax.
19. All closed tumblers used for the cleaning or deburring of metal products without abrasive blasting, and all open tumblers with a batch capacity of 1,000 lbs. or less.
20. Shell core and shell mold manufacturing machines.
21. Sand or investment molds with a capacity of 100 lbs. or less used for the casting of metals;
22. Equipment used for inspection of metal products.
23. Equipment used exclusively for rolling, forging, pressing, drawing, spinning, or extruding either hot or cold metals by some mechanical means.
24. Instrument systems utilizing air, natural gas, nitrogen, oxygen, carbon dioxide, helium, neon, argon, krypton, and xenon.
25. Battery recharging areas.
26. Brazing, soldering, or welding equipment.

### **Determination of Applicable Requirements**

The tables below include the applicability determinations for the emission units, the index number(s) where applicable, and all relevant unit attribute information used to form the basis of the applicability determination. The unit attribute information is a description of the physical properties of an emission unit which is used to determine the requirements to which the permit holder must comply. For more information about the descriptions of the unit attributes specific Unit Attribute Forms may be viewed at [www.tceq.texas.gov/permitting/air/nav/air\\_all\\_ua\\_forms.html](http://www.tceq.texas.gov/permitting/air/nav/air_all_ua_forms.html).

A list of unit attribute forms is included at the end of this document. Some examples of unit attributes include construction date; product stored in a tank; boiler fuel type; etc.. Generally, multiple attributes are needed to determine the requirements for a given emission unit and index number. The table below lists these attributes in the column entitled "Basis of Determination." Attributes that demonstrate that an applicable requirement applies will be the factual basis for the specific citations in an applicable requirement that apply to a unit for that index number. The TCEQ Air Permits Division has developed flowcharts for determining applicability of state and federal regulations based on the unit attribute information in a Decision Support System (DSS). These flowcharts can be accessed via the internet at [www.tceq.texas.gov/permitting/air/nav/air\\_supportsys.html](http://www.tceq.texas.gov/permitting/air/nav/air_supportsys.html). The Air Permits Division staff may also be contacted for assistance at (512) 239-1250.

The attributes for each unit and corresponding index number provide the basis for determining the specific legal citations in an applicable requirement that apply, including emission limitations or standards,

monitoring, recordkeeping, and reporting. The rules were found to apply or not apply by using the unit attributes as answers to decision questions found in the flowcharts of the DSS. Some additional attributes indicate which legal citations of a rule apply. The legal citations that apply to each emission unit may be found in the Applicable Requirements Summary table of the draft permit. There may be some entries or rows of units and rules not found in the permit, or if the permit contains a permit shield, repeated in the permit shield area. These are sets of attributes that describe negative applicability, or; in other words, the reason why a potentially applicable requirement does not apply.

If applicability determinations have been made which differ from the available flowcharts, an explanation of the decisions involved in the applicability determination is specified in the column “Changes and Exceptions to RRT.” If there were no exceptions to the DSS, then this column has been removed.

The draft permit includes all emission limitations or standards, monitoring, recordkeeping and reporting required by each applicable requirement. If an applicable requirement does not require monitoring, recordkeeping, or reporting, the word “None” will appear in the Applicable Requirements Summary table. If additional periodic monitoring is required for an applicable requirement, it will be explained in detail in the portion of this document entitled “Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected.”

When attributes demonstrate that a unit is not subject to an applicable requirement, the applicant may request a permit shield for those items. The portion of this document entitled “Basis for Applying Permit Shields” specifies which units, if any, have a permit shield.

#### Operational Flexibility

When an emission unit has multiple operating scenarios, it will have a different index number associated with each operating condition. This means that units are permitted to operate under multiple operating conditions. The applicable requirements for each operating condition are determined by a unique set of unit attributes. For example, a tank may store two different products at different points in time. The tank may, therefore, need to comply with two distinct sets of requirements, depending on the product that is stored. Both sets of requirements are included in the permit, so that the permit holder may store either product in the tank.

## Determination of Applicable Requirements

| Unit ID      | Regulation                   | Index Number | Basis of Determination*   | Changes and Exceptions to DSS**  |
|--------------|------------------------------|--------------|---|--|
| EMENG1       | 40 CFR Part 63, Subpart ZZZZ | 63ZZZZ-ENG   | Brake HP = Stationary RICE with a brake hp less than 100 hp.<br>Manufacture Date = The stationary RICE was manufactured prior to January 1, 2008.<br>Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002.<br>Nonindustrial Emergency Engine = Stationary RICE is not defined as a residential emergency RICE, a commercial emergency RICE, or an institutional emergency RICE.<br>Service Type = Emergency use.<br>Stationary RICE Type = 4 stroke spark ignited lean burn engine. | HIGH-LEVEL 40 CFR PART 63, SUBPART ZZZZ APPLICABILITY SINCE RULE REQUIREMENTS TABLE NOT YET DEVELOPED. |
| EMENG2       | 40 CFR Part 63, Subpart ZZZZ | 63ZZZZ-ENG   | Brake HP = Stationary RICE with a brake hp less than 100 hp.<br>Manufacture Date = The stationary RICE was manufactured prior to January 1, 2008.<br>Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002.<br>Nonindustrial Emergency Engine = Stationary RICE is not defined as a residential emergency RICE, a commercial emergency RICE, or an institutional emergency RICE.<br>Service Type = Emergency use.<br>Stationary RICE Type = 4 stroke spark ignited lean burn engine. | HIGH-LEVEL 40 CFR PART 63, SUBPART ZZZZ APPLICABILITY SINCE RULE REQUIREMENTS TABLE NOT YET DEVELOPED. |
| EMERGAIRCOMP | 40 CFR Part 63, Subpart ZZZZ | 63ZZZZ-ENG   | Brake HP = Stationary RICE with a brake hp less than 100 hp.<br>Manufacture Date = The stationary RICE was manufactured prior to January 1, 2008.<br>Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002.<br>Nonindustrial Emergency Engine = Stationary RICE is not defined as a residential emergency RICE, a commercial emergency RICE, or an institutional emergency RICE.<br>Service Type = Emergency use.<br>Stationary RICE Type = 4 stroke spark ignited lean burn engine. | HIGH-LEVEL 40 CFR PART 63, SUBPART ZZZZ APPLICABILITY SINCE RULE REQUIREMENTS TABLE NOT YET DEVELOPED. |

| Unit ID    | Regulation                       | Index Number | Basis of Determination*  | Changes and Exceptions to DSS** |
|------------|----------------------------------|--------------|--|---------------------------------|
| GRPAUXBOIL | 30 TAC Chapter 117, Subchapter B | R117-MSS     | <p>NOX EMISSION LIMITATION = Title 30 TAC § 117.310(d)(3) [relating to mass emissions cap and trade in 30 TAC Chapter 101, Subchapter H, Division 3 and Emission Specifications for Attainment Demonstration].</p> <p>UNIT TYPE = Other industrial, commercial, or institutional boiler.</p> <p>MAXIMUM RATED CAPACITY = MRC is greater than or equal to 250 MMBtu/hr.</p> <p>NOX MONITORING SYSTEM = Continuous emissions monitoring system.</p> <p>FUEL FLOW MONITORING = Fuel flow is monitored with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>CO EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under 30 TAC §§ 117.125(a), 117.325(a) or 117.425(a).</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>EGF SYSTEM CAP UNIT = The unit is not used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES FUEL TYPE #1 [REG VII] = Natural gas.</p> <p>INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES FUEL TYPE #2 [REG VII] = Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases.</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under 30 TAC §§ 117.125(a), 117.325(a) or 117.425(a).</p> <p>NH<sub>3</sub> EMISSION MONITORING = Continuous emissions monitoring system.</p> <p>NOX REDUCTIONS = Post combustion control technique with ammonia injection.</p> <p>ANNUAL HEAT INPUT/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Annual heat input is greater than 2.2(10<sup>11</sup>) Btu/yr, based on rolling 12-month average.</p> |                                 |

| Unit ID    | Regulation                       | Index Number | Basis of Determination*  | Changes and Exceptions to DSS** |
|------------|----------------------------------|--------------|--|---------------------------------|
| GRPAUXBOIL | 30 TAC Chapter 117, Subchapter B | R117-NORMAL  | <p>NOX EMISSION LIMITATION = Title 30 TAC § 117.310(d)(3) [relating to mass emissions cap and trade in 30 TAC Chapter 101, Subchapter H, Division 3 and Emission Specifications for Attainment Demonstration].</p> <p>UNIT TYPE = Other industrial, commercial, or institutional boiler.</p> <p>MAXIMUM RATED CAPACITY = MRC is greater than or equal to 250 MMBtu/hr.</p> <p>NOX MONITORING SYSTEM = Continuous emissions monitoring system.</p> <p>FUEL FLOW MONITORING = Fuel flow is monitored with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>CO EMISSION LIMITATION = Title 30 TAC § 117.310(c)(1) 400 ppmv option.</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>EGF SYSTEM CAP UNIT = The unit is not used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES FUEL TYPE #1 [REG VII] = Natural gas.</p> <p>INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES FUEL TYPE #2 [REG VII] = Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases.</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Title 30 TAC § 117.310(c)(2).</p> <p>NH<sub>3</sub> EMISSION MONITORING = Continuous emissions monitoring system.</p> <p>NOX REDUCTIONS = Post combustion control technique with ammonia injection.</p> <p>ANNUAL HEAT INPUT/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Annual heat input is greater than 2.2(10<sup>11</sup>) Btu/yr, based on rolling 12-month average.</p> |                                 |

| Unit ID    | Regulation                 | Index Number | Basis of Determination*  | Changes and Exceptions to DSS** |
|------------|----------------------------|--------------|--|---------------------------------|
| GRPAUXBOIL | 40 CFR Part 60, Subpart Db | 60Db-FG      | <p>40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #1 = Gaseous fossil fuel other than natural gas and coal-derived synthetic fuel meeting the definition of natural gas.</p> <p>CONSTRUCTION/MODIFICATION DATE = Constructed or reconstructed after July 9, 1997, and on or before February 28, 2005.</p> <p>40 CFR 60 (NSPS) SUBPART DB HEAT INPUT CAPACITY = Heat input capacity is greater than 250 MMBtu/hr (73 MW).</p> <p>PM MONITORING TYPE = No particulate monitoring.</p> <p>40 CFR 60 (NSPS) SUBPART DA CORRESPONDING APPLICABILITIES [NSPS DB] = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da.</p> <p>OPACITY MONITORING TYPE = No particulate (opacity) monitoring.</p> <p>40 CFR 60 (NSPS) SUBPART DB CHANGES TO EXISTING AFFECTED FACILITY = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281.</p> <p>NOX MONITORING TYPE = Continuous emission monitoring system.</p> <p>ELECTRICAL OR MECHANICAL OUTPUT = 10% or less of the annual output is electrical or mechanical.</p> <p>SO<sub>2</sub> MONITORING TYPE = No SO<sub>2</sub> monitoring.</p> <p>SUBPART EA, EB OR AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA.</p> <p>SUBPART J CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J.</p> <p>OUTPUT BASED LIMIT = The facility is not electing to comply with the output based limit in § 60.44b(l)(3).</p> <p>SUBPART E CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E.</p> <p>SUBPART KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK.</p> <p>TECHNOLOGY TYPE = None.</p> <p>ACF OPTION - SO<sub>2</sub> = Other ACF or no ACF.</p> <p>SUBPART CB OR BBBB = The affected facility is not covered by an EPA approved State or Federal section 111(d)/129 plan implementing 40 CFR Part 60, Subpart Cb or BBBB emission guidelines.</p> <p>UNIT TYPE = OTHER UNIT TYPE</p> <p>ACF OPTION - PM = Other ACF or no ACF.</p> <p>60.49DA(N) ALTERNATIVE = The facility is not using the § 60.49Da(n) alternative.</p> <p>ACF OPTION - NOX = Other ACF or no ACF.</p> <p>60.49DA(M) ALTERNATIVE = The facility is not using the § 60.49Da(m) alternative.</p> |                                 |

| Unit ID    | Regulation                 | Index Number | Basis of Determination*   | Changes and Exceptions to DSS** |
|------------|----------------------------|--------------|---|---------------------------------|
| GRPAUXBOIL | 40 CFR Part 60, Subpart Db | 60Db-MG      | <p>40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #1 = Natural gas.</p> <p>CONSTRUCTION/MODIFICATION DATE = Constructed or reconstructed after July 9, 1997, and on or before February 28, 2005.</p> <p>40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #2 = Gaseous fossil fuel other than natural gas and coal-derived synthetic fuel meeting the definition of natural gas.</p> <p>40 CFR 60 (NSPS) SUBPART DB HEAT INPUT CAPACITY = Heat input capacity is greater than 250 MMBtu/hr (73 MW).</p> <p>PM MONITORING TYPE = No particulate monitoring.</p> <p>40 CFR 60 (NSPS) SUBPART DA CORRESPONDING APPLICABILITIES [NSPS DB] = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da.</p> <p>OPACITY MONITORING TYPE = No particulate (opacity) monitoring.</p> <p>40 CFR 60 (NSPS) SUBPART DB CHANGES TO EXISTING AFFECTED FACILITY = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281.</p> <p>NOX MONITORING TYPE = Continuous emission monitoring system.</p> <p>ELECTRICAL OR MECHANICAL OUTPUT = 10% or less of the annual output is electrical or mechanical.</p> <p>SO<sub>2</sub> MONITORING TYPE = No SO<sub>2</sub> monitoring.</p> <p>SUBPART EA, EB OR AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA.</p> <p>SUBPART J CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J.</p> <p>OUTPUT BASED LIMIT = The facility is not electing to comply with the output based limit in § 60.44b(l)(3).</p> <p>SUBPART E CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E.</p> <p>SUBPART KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK.</p> <p>TECHNOLOGY TYPE = None.</p> <p>ACF OPTION - SO<sub>2</sub> = Other ACF or no ACF.</p> <p>SUBPART CB OR BBBB = The affected facility is not covered by an EPA approved State or Federal section 111(d)/129 plan implementing 40 CFR Part 60, Subpart Cb or BBBB emission guidelines.</p> <p>UNIT TYPE = OTHER UNIT TYPE</p> <p>ACF OPTION - PM = Other ACF or no ACF.</p> <p>HEAT RELEASE RATE = Natural gas oil with a heat release rate greater than 70 MBtu/hr/ft<sup>3</sup>.</p> <p>60.49DA(N) ALTERNATIVE = The facility is not using the § 60.49Da(n) alternative.</p> <p>ACF OPTION - NOX = Other ACF or no ACF.</p> <p>60.49DA(M) ALTERNATIVE = The facility is not using the § 60.49Da(m) alternative.</p> |                                 |

| Unit ID    | Regulation                 | Index Number | Basis of Determination*   | Changes and Exceptions to DSS** |
|------------|----------------------------|--------------|---|---------------------------------|
| GRPAUXBOIL | 40 CFR Part 60, Subpart Db | 60Db-NG      | <p>40 CFR 60 (NSPS) SUBPART DB FUEL TYPE #1 = Natural gas.</p> <p>CONSTRUCTION/MODIFICATION DATE = Constructed or reconstructed after July 9, 1997, and on or before February 28, 2005.</p> <p>40 CFR 60 (NSPS) SUBPART DB HEAT INPUT CAPACITY = Heat input capacity is greater than 250 MMBtu/hr (73 MW).</p> <p>PM MONITORING TYPE = No particulate monitoring.</p> <p>40 CFR 60 (NSPS) SUBPART DA CORRESPONDING APPLICABILITIES [NSPS DB] = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da.</p> <p>OPACITY MONITORING TYPE = No particulate (opacity) monitoring.</p> <p>40 CFR 60 (NSPS) SUBPART DB CHANGES TO EXISTING AFFECTED FACILITY = No change has been made to the existing steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Db, for the sole purpose of combusting gases containing totally reduced sulfur as defined under 40 CFR § 60.281.</p> <p>NOX MONITORING TYPE = Continuous emission monitoring system.</p> <p>ELECTRICAL OR MECHANICAL OUTPUT = 10% or less of the annual output is electrical or mechanical.</p> <p>SO<sub>2</sub> MONITORING TYPE = No SO<sub>2</sub> monitoring.</p> <p>SUBPART EA, EB OR AAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAA.</p> <p>SUBPART J CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart J.</p> <p>OUTPUT BASED LIMIT = The facility is not electing to comply with the output based limit in § 60.44b(l)(3).</p> <p>SUBPART E CORRESPONDING APPLICABILITIES = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart E.</p> <p>SUBPART KKKK = The affected facility is not a heat recovery steam generator associated with combined cycle gas turbines and that meets applicability requirements of and is subject to 40 CFR Part 60, Subpart KKKK.</p> <p>TECHNOLOGY TYPE = None.</p> <p>ACF OPTION - SO<sub>2</sub> = Other ACF or no ACF.</p> <p>SUBPART CB OR BBBB = The affected facility is not covered by an EPA approved State or Federal section 111(d)/129 plan implementing 40 CFR Part 60, Subpart Cb or BBBB emission guidelines.</p> <p>UNIT TYPE = OTHER UNIT TYPE</p> <p>ACF OPTION - PM = Other ACF or no ACF.</p> <p>HEAT RELEASE RATE = Natural gas oil with a heat release rate greater than 70 MBtu/hr/ft<sup>3</sup>.</p> <p>60.49DA(N) ALTERNATIVE = The facility is not using the § 60.49Da(n) alternative.</p> <p>ACF OPTION - NOX = Other ACF or no ACF.</p> <p>60.49DA(M) ALTERNATIVE = The facility is not using the § 60.49Da(m) alternative.</p> |                                 |

| Unit ID | Regulation                 | Index Number | Basis of Determination*   | Changes and Exceptions to DSS**   |
|---------|----------------------------|--------------|---|---|
| GRPHRSG | 40 CFR Part 60, Subpart Da | 60Da-FG      | <p>40 CFR 60 (NSPS) SUBPART DA CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE = Constructed after July 9, 1997, and on or before February 28, 2005.</p> <p>FUEL PRETREATMENT = Fuel pretreatment credit is not claimed.</p> <p>40 CFR 60 (NSPS) SUBPART DA UNIT TYPE = Not a resource recovery unit.</p> <p>COMBINED CYCLE SYSTEM = The unit is used in conjunction with an electric utility combined cycle gas turbine not designed to burn fuels containing 50 percent (by heat input) or more solid derived fuel not meeting the definition of natural gas.</p> <p>HEAT INPUT OF FOSSIL FUEL [NSPS DA] = Heat input of fossil fuel is greater than 250 MMBtu/hr (73 MW).</p> <p>40 CFR 60 (NSPS) SUBPART DA FUEL TYPE #1 = Gaseous fossil fuel.</p> <p>DUCT BURNER = The unit is a duct burner.</p> <p>SULFUR DIOXIDE (SO<sub>2</sub>) MONITORING TYPE = As-fired sampling [§ 60.49Da(b)(3)].</p> <p>40 CFR 60 (NSPS) SUBPART DA CHANGES TO EXISTING AFFECTED FACILITY = Changes have not been made to the existing fossil fuel-fired steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Da, to accommodate the use of fuels not previously fired.</p> <p>NOX FLOW MONITORING SYSTEM = Fuel flow monitoring system certified and operated according to the requirements of 40 CFR Part 75, Appendix D (gas-fired or oil-fired units only) [in accordance with 40 CFR § 60.49Da(n)].</p> <p>NOX MONITORING TYPE = Continuous emission monitoring system installed to meet the requirements of Part 75.</p> <p>COMMERCIAL DEMONSTRATION PERMIT = The EPA Administrator has not issued a commercial demonstration permit (CDP).</p> <p>COMBINED CYCLE TYPE = Combined cycle gas turbine (other than an IGCC) that is not subject to NSPS KKKK.</p> <p>SULFUR DIOXIDE (SO<sub>2</sub>) EMISSION RATE [NSPS DA] = SO<sub>2</sub> emission rate is less than 0.20 lb/MMBtu (86 ng/J) heat input.</p> <p>FGD = The facility does not have a flue gas desulfurization system.</p> | MANUALLY DEVELOPED LOW-LEVEL 40 CFR PART 60, SUBPART Da APPLICABILITY BASED ON APPLICANT SUPPLIED ATTRIBUTES. |

| Unit ID | Regulation                 | Index Number | Basis of Determination*  | Changes and Exceptions to DSS**   |
|---------|----------------------------|--------------|--|---|
| GRPHRSG | 40 CFR Part 60, Subpart Da | 60Da-MG      | <p>40 CFR 60 (NSPS) SUBPART DA CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE = Constructed after July 9, 1997, and on or before February 28, 2005.</p> <p>FUEL PRETREATMENT = Fuel pretreatment credit is not claimed.</p> <p>40 CFR 60 (NSPS) SUBPART DA UNIT TYPE = Not a resource recovery unit.</p> <p>COMBINED CYCLE SYSTEM = The unit is used in conjunction with an electric utility combined cycle gas turbine not designed to burn fuels containing 50 percent (by heat input) or more solid derived fuel not meeting the definition of natural gas.</p> <p>HEAT INPUT OF FOSSIL FUEL [NSPS DA] = Heat input of fossil fuel is greater than 250 MMBtu/hr (73 MW).</p> <p>40 CFR 60 (NSPS) SUBPART DA FUEL TYPE #1 = Natural gas.</p> <p>DUCT BURNER = The unit is a duct burner.</p> <p>40 CFR 60 (NSPS) SUBPART DA FUEL TYPE #2 = Gaseous fossil fuel.</p> <p>SULFUR DIOXIDE (SO<sub>2</sub>) MONITORING TYPE = As-fired sampling [§ 60.49Da(b)(3)].</p> <p>40 CFR 60 (NSPS) SUBPART DA CHANGES TO EXISTING AFFECTED FACILITY = Changes have not been made to the existing fossil fuel-fired steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Da, to accommodate the use of fuels not previously fired.</p> <p>NOX FLOW MONITORING SYSTEM = Fuel flow monitoring system certified and operated according to the requirements of 40 CFR Part 75, Appendix D (gas-fired or oil-fired units only) [in accordance with 40 CFR § 60.49Da(n)].</p> <p>NOX MONITORING TYPE = Continuous emission monitoring system installed to meet the requirements of Part 75.</p> <p>COMMERCIAL DEMONSTRATION PERMIT = The EPA Administrator has not issued a commercial demonstration permit (CDP).</p> <p>COMBINED CYCLE TYPE = Combined cycle gas turbine (other than an IGCC) that is not subject to NSPS KKKK.</p> <p>SULFUR DIOXIDE (SO<sub>2</sub>) EMISSION RATE [NSPS DA] = SO<sub>2</sub> emission rate is less than 0.20 lb/MMBtu (86 ng/J) heat input.</p> <p>FGD = The facility does not have a flue gas desulfurization system.</p> | MANUALLY DEVELOPED LOW-LEVEL 40 CFR PART 60, SUBPART Da APPLICABILITY BASED ON APPLICANT SUPPLIED ATTRIBUTES. |

| Unit ID | Regulation                 | Index Number | Basis of Determination*   | Changes and Exceptions to DSS**   |
|---------|----------------------------|--------------|---|---|
| GRPHRSG | 40 CFR Part 60, Subpart Da | 60Da-NG      | <p>40 CFR 60 (NSPS) SUBPART DA CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE = Constructed after July 9, 1997, and on or before February 28, 2005.</p> <p>FUEL PRETREATMENT = Fuel pretreatment credit is not claimed.</p> <p>40 CFR 60 (NSPS) SUBPART DA UNIT TYPE = Not a resource recovery unit.</p> <p>COMBINED CYCLE SYSTEM = The unit is used in conjunction with an electric utility combined cycle gas turbine not designed to burn fuels containing 50 percent (by heat input) or more solid derived fuel not meeting the definition of natural gas.</p> <p>HEAT INPUT OF FOSSIL FUEL [NSPS DA] = Heat input of fossil fuel is greater than 250 MMBtu/hr (73 MW).</p> <p>40 CFR 60 (NSPS) SUBPART DA FUEL TYPE #1 = Natural gas.</p> <p>DUCT BURNER = The unit is a duct burner.</p> <p>SULFUR DIOXIDE (SO<sub>2</sub>) MONITORING TYPE = As-fired sampling [§ 60.49Da(b)(3)].</p> <p>40 CFR 60 (NSPS) SUBPART DA CHANGES TO EXISTING AFFECTED FACILITY = Changes have not been made to the existing fossil fuel-fired steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Da, to accommodate the use of fuels not previously fired.</p> <p>NOX FLOW MONITORING SYSTEM = Fuel flow monitoring system certified and operated according to the requirements of 40 CFR Part 75, Appendix D (gas-fired or oil-fired units only) [in accordance with 40 CFR § 60.49Da(n)].</p> <p>NOX MONITORING TYPE = Continuous emission monitoring system installed to meet the requirements of Part 75.</p> <p>COMMERCIAL DEMONSTRATION PERMIT = The EPA Administrator has not issued a commercial demonstration permit (CDP).</p> <p>COMBINED CYCLE TYPE = Not a combined cycle gas turbine.</p> <p>SULFUR DIOXIDE (SO<sub>2</sub>) EMISSION RATE [NSPS DA] = SO<sub>2</sub> emission rate is less than 0.20 lb/MMBtu (86 ng/J) heat input.</p> <p>FGD = The facility does not have a flue gas desulfurization system.</p> | MANUALLY DEVELOPED LOW-LEVEL 40 CFR PART 60, SUBPART Da APPLICABILITY BASED ON APPLICANT SUPPLIED ATTRIBUTES. |
| HRSG3   | 40 CFR Part 60, Subpart Da | 60Da         | <p>40 CFR 60 (NSPS) SUBPART DA CONSTRUCTION/MODIFICATION (RECONSTRUCTION) DATE = Constructed after February 28, 2005.</p> <p>HEAT INPUT OF FOSSIL FUEL [NSPS DA] = Heat input of fossil fuel is greater than 250 MMBtu/hr (73 MW).</p> <p>40 CFR 60 (NSPS) SUBPART DA FUEL TYPE #1 = Natural gas.</p> <p>40 CFR 60 (NSPS) SUBPART DA FUEL TYPE #2 = Gaseous fossil fuel.</p> <p>40 CFR 60 (NSPS) SUBPART DA CHANGES TO EXISTING AFFECTED FACILITY = Changes have not been made to the existing fossil fuel-fired steam generating unit, which was not previously subject to 40 CFR Part 60, Subpart Da, to accommodate the use of fuels not previously fired.</p> <p>% COAL REFUSE = The facility burns less than 75% coal refuse on a 12-month rolling average basis.</p> <p>COMBINED CYCLE TYPE = Combined cycle gas turbine (other than an IGCC) that is subject to NSPS KKKK.</p>   | MANUALLY DEVELOPED LOW-LEVEL 40 CFR PART 60, SUBPART Da APPLICABILITY BASED ON APPLICANT SUPPLIED ATTRIBUTES. |

| Unit ID | Regulation                       | Index Number | Basis of Determination*   | Changes and Exceptions to DSS** |
|---------|----------------------------------|--------------|---|---------------------------------|
| HRSG3   | 40 CFR Part 60, Subpart Db       | 60Db         | <p>CONSTRUCTION/MODIFICATION DATE = Constructed or reconstructed after February 28, 2005.</p> <p>40 CFR 60 (NSPS) SUBPART DB HEAT INPUT CAPACITY = Heat input capacity is greater than 250 MMBtu/hr (73 MW).</p> <p>40 CFR 60 (NSPS) SUBPART DA CORRESPONDING APPLICABILITIES [NSPS DB] = The affected facility does not meet applicability requirements of 40 CFR Part 60, Subpart Da.</p> <p>40 CFR 60 (NSPS) SUBPART DB 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 AAAAA = The affected facility does not meet applicability requirements of and is subject to 40 CFR Part 60, Subpart Ea, Eb or AAAAA.</p> <p>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.</p>  |                                 |
| CTG3    | 30 TAC Chapter 117, Subchapter B | R117-MSS     | <p>FUEL FLOW MONITORING = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>MEGAWATT RATING = MR is greater than or equal to 30 MW.</p> <p>CO EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.125, 117.325 or 117.425.</p> <p>EGF SYSTEM CAP UNIT = The engine is used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>AVERAGING METHOD = Complying with the applicable emission limit using a 30-day rolling average.</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.125, 117.325 or 117.425.</p> <p>NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Post combustion control technique with ammonia injection.</p> <p>SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Stationary gas turbine.</p> <p>NH<sub>3</sub> MONITORING = Continuous emissions monitoring system.</p> <p>NOX EMISSION LIMITATION = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11).</p> <p>NOX MONITORING SYSTEM = Continuous emission monitoring system as required by 40 CFR Part 75.</p> |                                 |

| Unit ID | Regulation                       | Index Number | Basis of Determination*   | Changes and Exceptions to DSS** |
|---------|----------------------------------|--------------|---|---------------------------------|
| CTG3    | 30 TAC Chapter 117, Subchapter B | R117-NORMAL  | <p>FUEL FLOW MONITORING = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>MEGAWATT RATING = MR is greater than or equal to 30 MW.</p> <p>CO EMISSION LIMITATION = Title 30 TAC § 117.310(c)(1).</p> <p>EGF SYSTEM CAP UNIT = The engine is used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>AVERAGING METHOD = Complying with the applicable emission limit using a 30-day rolling average.</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Title 30 TAC § 117.310(c)(2).</p> <p>NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Post combustion control technique with ammonia injection.</p> <p>SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Stationary gas turbine.</p> <p>NH<sub>3</sub> MONITORING = Continuous emissions monitoring system.</p> <p>NOX EMISSION LIMITATION = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11).</p> <p>NOX MONITORING SYSTEM = Continuous emission monitoring system as required by 40 CFR Part 75.</p> |                                 |

| Unit ID | Regulation                   | Index Number | Basis of Determination*  | Changes and Exceptions to DSS** |
|---------|------------------------------|--------------|--|---------------------------------|
| CTG3    | 40 CFR Part 60, Subpart KKKK | 60KKKK-1     | <p>75% OF PEAK = The combustion turbine operates at 75% of peak load or greater.</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>UNIT TYPE = Combined Heat and Power Combustion Turbine</p> <p>30 MW = The combustion turbine has an output of 30 MW or greater.</p> <p>CONSTRUCTION/MODIFICATION DATE = Turbine was constructed after February 18, 2005.</p> <p>SO<sub>2</sub> STANDARD = The heat input based SO<sub>2</sub> 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>HEAT INPUT = Turbine has a heat input at peak load of 850 MMBtu/hr or greater.</p> <p>FUEL QUALITY = Fuel is demonstrated not to exceed emission standard by representative fuel sampling data.</p> <p>NOX CONTROL = NO<sub>x</sub> emissions are not being controlled by steam or water injection.</p> <p>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.</p> <p>NOX MONITORING = A diluent NO<sub>x</sub> CEMS is used.</p> <p>PERFORMANCE TEST = Sulfur content of the fuel combusted in the turbine is being periodically determined.</p> <p>SERVICE TYPE = Service other than emergency service, as defined in § 60.4420(i), or research and development.</p> <p>COMMON STEAM HEADER = A steam header with one or more combustion turbines is utilized.</p> <p>NOX STANDARD = The parts per million NO<sub>x</sub> emission standard in Table 1 is being used.</p> <p>DUCT BURNER = The heat recovery system includes a duct burner.</p> <p>FUEL TYPE = 100% natural gas.</p> |                                 |

| Unit ID | Regulation                   | Index Number | Basis of Determination*   | Changes and Exceptions to DSS** |
|---------|------------------------------|--------------|---|---------------------------------|
| CTG3    | 40 CFR Part 60, Subpart KKKK | 60KKKK-2     | <p>75% OF PEAK = The combustion turbine operates at less than 75% of peak load.</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>UNIT TYPE = Combined Heat and Power Combustion Turbine</p> <p>30 MW = The combustion turbine has an output of 30 MW or greater.</p> <p>CONSTRUCTION/MODIFICATION DATE = Turbine was constructed after February 18, 2005.</p> <p>SO<sub>2</sub> STANDARD = The heat input based SO<sub>2</sub> 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>HEAT INPUT = Turbine has a heat input at peak load of 850 MMBtu/hr or greater.</p> <p>FUEL QUALITY = Fuel is demonstrated not to exceed emission standard by representative fuel sampling data.</p> <p>NOX CONTROL = NO<sub>x</sub> emissions are not being controlled by steam or water injection.</p> <p>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.</p> <p>NOX MONITORING = A diluent NO<sub>x</sub> CEMS is used.</p> <p>PERFORMANCE TEST = Sulfur content of the fuel combusted in the turbine is being periodically determined.</p> <p>SERVICE TYPE = Service other than emergency service, as defined in § 60.4420(i), or research and development.</p> <p>COMMON STEAM HEADER = A steam header with one or more combustion turbines is utilized.</p> <p>NOX STANDARD = The parts per million NO<sub>x</sub> emission standard in Table 1 is being used.</p> <p>DUCT BURNER = The heat recovery system includes a duct burner.</p> <p>FUEL TYPE = 100% natural gas.</p> |                                 |

| Unit ID | Regulation                       | Index Number | Basis of Determination*   | Changes and Exceptions to DSS** |
|---------|----------------------------------|--------------|---|---------------------------------|
| GRPGTG  | 30 TAC Chapter 117, Subchapter B | R117-MSS     | <p>FUEL FLOW MONITORING = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>MEGAWATT RATING = MR is greater than or equal to 30 MW.</p> <p>CO EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.125, 117.325 or 117.425.</p> <p>EGF SYSTEM CAP UNIT = The engine is used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>AVERAGING METHOD = Complying with the applicable emission limit using a 30-day rolling average.</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.125, 117.325 or 117.425.</p> <p>NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Post combustion control technique with ammonia injection.</p> <p>SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Stationary gas turbine.</p> <p>NH<sub>3</sub> MONITORING = Continuous emissions monitoring system.</p> <p>NOX EMISSION LIMITATION = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11).</p> <p>NOX MONITORING SYSTEM = Continuous emission monitoring system as required by 40 CFR Part 75.</p> |                                 |
| GRPGTG  | 30 TAC Chapter 117, Subchapter B | R117-NORMAL  | <p>FUEL FLOW MONITORING = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>MEGAWATT RATING = MR is greater than or equal to 30 MW.</p> <p>CO EMISSION LIMITATION = Title 30 TAC § 117.310(c)(1).</p> <p>EGF SYSTEM CAP UNIT = The engine is used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>AVERAGING METHOD = Complying with the applicable emission limit using a 30-day rolling average.</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Title 30 TAC § 117.310(c)(2).</p> <p>NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Post combustion control technique with ammonia injection.</p> <p>SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Stationary gas turbine.</p> <p>NH<sub>3</sub> MONITORING = Continuous emissions monitoring system.</p> <p>NOX EMISSION LIMITATION = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11).</p> <p>NOX MONITORING SYSTEM = Continuous emission monitoring system as required by 40 CFR Part 75.</p>   |                                 |

| Unit ID | Regulation                       | Index Number | Basis of Determination*  | Changes and Exceptions to DSS** |
|---------|----------------------------------|--------------|--|---------------------------------|
| GRPGTG  | 40 CFR Part 60, Subpart GG       | 6oGG         | <p>DUCT BURNER = The turbine is part of a combined cycle turbine system equipped with supplemental heat (duct burner).</p> <p>NITROGEN OXIDES (NOX) CONTROL METHOD [NSPS GG] = Selective catalytic reduction.</p> <p>PEAK LOAD HEAT INPUT [NSPS GG] = Heat Input is greater than 100 MMBtu/hr (107.2 GJ/hr)</p> <p>CONSTRUCTION/MODIFICATION DATE [NSPS GG] = On or after October 3, 1982 and before July 8, 2004.</p> <p>NOX ALLOWANCE = The owner or operator is not electing to use a NO<sub>x</sub> allowance in determining emission limits in 40 CFR § 60.332(a).</p> <p>NOX MONITORING METHOD = Continuous emission monitoring system.</p> <p>SULFUR CONTENT [NSPS GG] = Compliance is demonstrated by determining the sulfur content of the fuel.</p> <p>TURBINE CYCLE = Unit recovers heat from the gas turbine exhaust to heat water or generate steam.</p> <p>40 CFR 60 (NSPS) SUBPART GG SERVICE TYPE = Electric utility generation.</p> <p>FUEL TYPE FIRED = Natural gas meeting the definition in § 60.331(u).</p> <p>FUEL SUPPLY [NSPS GG] = Stationary gas turbine is supplied its fuel without intermediate bulk storage.</p> <p>FUEL MONITORING SCHEDULE = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.</p>  |                                 |
| GRPHRSG | 30 TAC Chapter 117, Subchapter B | R117-MSS     | <p>FUEL FLOW MONITORING = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>MEGAWATT RATING = MR is greater than or equal to 30 MW.</p> <p>CO EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.125, 117.325 or 117.425.</p> <p>EGF SYSTEM CAP UNIT = The engine is used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>AVERAGING METHOD = Complying with the applicable emission limit using a 30-day rolling average.</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.125, 117.325 or 117.425.</p> <p>NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Post combustion control technique with ammonia injection.</p> <p>SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Duct burner used in turbine exhaust.</p> <p>NH<sub>3</sub> MONITORING = Continuous emissions monitoring system.</p> <p>NOX EMISSION LIMITATION = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11).</p> <p>NOX MONITORING SYSTEM = Continuous emission monitoring system as required by 40 CFR Part 75.</p> |                                 |

| Unit ID | Regulation                       | Index Number | Basis of Determination*  | Changes and Exceptions to DSS** |
|---------|----------------------------------|--------------|--|---------------------------------|
| GRPHRSG | 30 TAC Chapter 117, Subchapter B | R117-NORMAL  | <p>FUEL FLOW MONITORING = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>MEGAWATT RATING = MR is greater than or equal to 30 MW.</p> <p>CO EMISSION LIMITATION = Title 30 TAC § 117.310(c)(1).</p> <p>EGF SYSTEM CAP UNIT = The engine is used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>AVERAGING METHOD = Complying with the applicable emission limit using a 30-day rolling average.</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Title 30 TAC § 117.310(c)(2).</p> <p>NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Post combustion control technique with ammonia injection.</p> <p>SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Duct burner used in turbine exhaust.</p> <p>NH<sub>3</sub> MONITORING = Continuous emissions monitoring system.</p> <p>NOX EMISSION LIMITATION = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11).</p> <p>NOX MONITORING SYSTEM = Continuous emission monitoring system as required by 40 CFR Part 75.</p>   |                                 |
| HRSG3   | 30 TAC Chapter 117, Subchapter B | R117-MSS     | <p>FUEL FLOW MONITORING = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>MEGAWATT RATING = MR is greater than or equal to 30 MW.</p> <p>CO EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.125, 117.325 or 117.425.</p> <p>EGF SYSTEM CAP UNIT = The engine is used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>AVERAGING METHOD = Complying with the applicable emission limit using a 30-day rolling average.</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.125, 117.325 or 117.425.</p> <p>NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Post combustion control technique with ammonia injection.</p> <p>SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Duct burner used in turbine exhaust.</p> <p>NH<sub>3</sub> MONITORING = Continuous emissions monitoring system.</p> <p>NOX EMISSION LIMITATION = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11).</p> <p>NOX MONITORING SYSTEM = Continuous emission monitoring system as required by 40 CFR Part 75.</p> |                                 |

| Unit ID    | Regulation                                    | Index Number | Basis of Determination*  | Changes and Exceptions to DSS** |
|------------|---|--------------|--|---------------------------------|
| HRS3       | 30 TAC Chapter 117, Subchapter B              | R117-NORMAL  | <p>FUEL FLOW MONITORING = Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a).</p> <p>MEGAWATT RATING = MR is greater than or equal to 30 MW.</p> <p>CO EMISSION LIMITATION = Title 30 TAC § 117.310(c)(1).</p> <p>EGF SYSTEM CAP UNIT = The engine is used as an electric generating facility to generate electricity for sale to the electric grid.</p> <p>AVERAGING METHOD = Complying with the applicable emission limit using a 30-day rolling average.</p> <p>CO MONITORING SYSTEM = Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1).</p> <p>NH<sub>3</sub> EMISSION LIMITATION = Title 30 TAC § 117.310(c)(2).</p> <p>NOX REDUCTIONS/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Post combustion control technique with ammonia injection.</p> <p>SERVICE TYPE/INSTITUTIONAL, COMMERCIAL, INDUSTRIAL SOURCES [REG VII] = Duct burner used in turbine exhaust.</p> <p>NH<sub>3</sub> MONITORING = Continuous emissions monitoring system.</p> <p>NOX EMISSION LIMITATION = Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11).</p> <p>NOX MONITORING SYSTEM = Continuous emission monitoring system as required by 40 CFR Part 75.</p> |                                 |
| GRPAUXSTK  | 30 TAC Chapter 111, Visible Emissions         | R111         | <p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>   |                                 |
| GRPHRSGSTK | 30 TAC Chapter 111, Nonagricultural Processes | R1151        | <p>Effective Stack Height = The effective stack height as calculated in the equation specified by 30 TAC §111.151(c) is not less than the standard effective stack height as determined by Table 2 specified in 30 TAC §111.151(b).</p>  |                                 |
| GRPHRSGSTK | 30 TAC Chapter 111, Visible Emissions         | R111         | <p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>   |                                 |

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

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

## NSR Versus Title V FOP

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

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

| NSR Permit  | Federal Operating Permit(FOP)  |
|---|--|
| Issued Prior to new Construction or modification of an existing facility  | For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.  |
| Authorizes air emissions  | Codifies existing applicable requirements, does not authorize new emissions  |
| Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented. | Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.   |
| Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.   | One public notice required. Opportunity for public comments. No contested case hearings.   |
| Applies to all point source emissions in the state.   | Applies to all major sources and some non-major sources identified by the EPA.   |
| Applies to facilities: a portion of site or individual emission sources   | One or multiple FOPs cover the entire site (consists of multiple facilities)   |
| Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.  | Permits include terms and conditions that specify the general operational requirements of the site; and also include codification of all applicable requirements for emission units at the site.   |
| Opportunity for EPA review for Federal Prevention of Significant Deterioration (PSD) and Nonattainment (NA) permits for major sources.  | Opportunity for EPA review, Affected states review, and a Public petition period for every FOP.  |
| Permits have a table listing maximum emission limits for pollutants   | Permit has an applicable requirements table and Periodic Monitoring (PM) / Compliance Assurance Monitoring (CAM) tables which document applicable monitoring requirements.   |
| Permits can be altered or amended upon application by company. Permits must be issued before construction or modification of facilities can begin.  | Permits can be revised through several revision processes, which provide for different levels of public notice and opportunity to comment. Changes that would be significant revisions require that a revised permit be issued before those changes can be operated. |
| NSR permits are issued independent of FOP requirements.   | FOP are independent of NSR permits, but contain a list of all NSR permits incorporated by reference  |

## New Source Review Requirements

Below is a list of the New Source Review (NSR) permits for the permitted area. These NSR permits are incorporated by reference into the operating permit and are enforceable under it. These permits can be found in the main TCEQ file room, located on the first floor of Building E, 12100 Park 35 Circle, Austin, Texas. The

Public Education Program may be contacted at 1-800-687-4040 or the Air Permits Division (APD) may be contacted at 1-512-239-1250 for help with any question.

Additionally, the site contains emission units that are permitted by rule under the requirements of 30 TAC Chapter 106, Permits by Rule. The following table specifies the permits by rule that apply to the site. All current permits by rule are contained in Chapter 106. Outdated 30 TAC Chapter 106 permits by rule may be viewed at the following Web site:

[www.tceq.texas.gov/permitting/air/permitbyrule/historical\\_rules/old106list/index106.html](http://www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html)

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

[www.tceq.texas.gov/permitting/air/permitbyrule/historical\\_rules/oldselist/se\\_index.html](http://www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html)

| <b>Prevention of Significant Deterioration (PSD) Permits</b>  |                              |
|---|------------------------------|
| PSD Permit No.: PSDTX955M1  | Issuance Date: 10/15/2012    |
| <b>Nonattainment (NA) Permits</b>   |                              |
| NA Permit No.: NO21M1   | Issuance Date: 10/15/2012    |
| <b>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.</b> |                              |
| Authorization No.: 42179  | Issuance Date: 10/15/2012    |
| <b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>  |                              |
| Number: 106.227   | Version No./Date: 09/04/2000 |
| Number: 106.262   | Version No./Date: 09/04/2000 |
| Number: 106.263   | Version No./Date: 11/01/2001 |
| Number: 106.371   | Version No./Date: 09/04/2000 |
| Number: 106.454   | Version No./Date: 09/04/2000 |
| Number: 106.472   | Version No./Date: 09/04/2000 |
| Number: 106.477   | Version No./Date: 09/04/2000 |
| Number: 106.511   | Version No./Date: 09/04/2000 |
| Number: 106.532   | Version No./Date: 09/04/2000 |
| Number: 106/472   | Version No./Date: 09/04/2000 |

## NSR Requirements – Greenhouse Gas (GHG) Emissions

Effective May 1, 2011, the Environmental Protection Agency in its notice-and-comment final rulemaking became the permitting authority for, and began applying the Federal PSD requirements to, large GHG-emitting sources in accordance with the thresholds established under the Tailoring Rule. (76 Fed. Reg. 25178, May 3, 2011)

EPA's action was predicated on a determination that because the Texas SIP does not apply PSD requirements to GHGs, EPA's previous action fully approving Texas's PSD program was in error under the Federal Clean Air Act. (See EPA's SIP Call Notice, 75 Fed. Reg. 77698, December 13, 2010, and Federal Implementation Plan, 75 Fed. Reg. 82430, December 30, 2010.)

| Prevention of Significant Deterioration (PSD) Permit for GHG Emissions |                           |
|--|---------------------------|
| PSD Permit No.: PSDTX955GHG  | Issuance Date: 11/29/2012 |

### Emission Units and Emission Points

In air permitting terminology, any source capable of generating emissions (for example, an engine or a sandblasting area) is called an Emission Unit. For purposes of Title V, emission units are specifically listed in the operating permit when they have applicable requirements other than New Source Review (NSR), or when they are listed in the permit shield table.

The actual physical location where the emissions enter the atmosphere (for example, an engine stack or a sandblasting yard) is called an emission point. For New Source Review preconstruction permitting purposes, every emission unit has an associated emission point. Emission limits are listed in an NSR permit, associated with an emission point. This list of emission points and emission limits per pollutant is commonly referred to as the "Maximum Allowable Emission Rate Table", or "MAERT" for short. Specifically, the MAERT lists the Emission Point Number (EPN) that identifies the emission point, followed immediately by the Source Name, identifying the emission unit that is the source of those emissions on this table.

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

### Monitoring Sufficiency

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

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

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

### **Periodic Monitoring:**

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

| <b>Unit/Group/Process Information</b>   |                                   |
|---|-----------------------------------|
| ID No.: GRPAUXSTK   |                                   |
| Control Device ID No.: N/A  | Control Device Type: N/A          |
| <b>Applicable Regulatory Requirement</b>  |                                   |
| Name: 30 TAC Chapter 111, Visible Emissions   | SOP Index No.: R1111              |
| Pollutant: OPACITY  | Main Standard: § 111.111(a)(1)(C) |
| <b>Monitoring Information</b>   |                                   |
| Indicator: Fuel Type  |                                   |
| Minimum Frequency: Annually   |                                   |
| Averaging Period: n/a   |                                   |
| Deviation Limit: Firing of an alternative fuel, either alone or in combination with the specified fuel (pipeline quality natural gas or refinery gas containing no more than 5.0 gr total sulfur per 100 dscf.  |                                   |
| Basis of monitoring:<br>Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only. |                                   |

| <b>Unit/Group/Process Information</b>  |                                |
|--|--------------------------------|
| ID No.: GRPHRSG  |                                |
| Control Device ID No.: N/A   | Control Device Type: N/A       |
| <b>Applicable Regulatory Requirement</b>   |                                |
| Name: 40 CFR Part 60, Subpart Da   | SOP Index No.: 60Da-FG         |
| Pollutant: SO <sub>2</sub>   | Main Standard: § 60.43Da(b)(2) |
| <b>Monitoring Information</b>  |                                |
| Indicator: Sulfur Content of Fuel  |                                |
| Minimum Frequency: quarterly and within 24 hours of any fuel change  |                                |
| Averaging Period: n/a*   |                                |
| Deviation Limit: > 70 gr S/100scf  |                                |
| Basis of monitoring:<br>A common way to determine SO <sub>2</sub> emissions is by determining the amount (percentage) of sulfur in fuel combusted by an emission unit. This quantity along with stack flow rate and quantity of fuel combusted may be used to calculate the amount of SO <sub>2</sub> emitted to the atmosphere. |                                |

\*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

| <b>Unit/Group/Process Information</b>  |                                |
|--|--------------------------------|
| ID No.: GRPHRSG  |                                |
| Control Device ID No.: N/A   | Control Device Type: N/A       |
| <b>Applicable Regulatory Requirement</b>   |                                |
| Name: 40 CFR Part 60, Subpart Da   | SOP Index No.: 60Da-MG         |
| Pollutant: SO <sub>2</sub>   | Main Standard: § 60.43Da(b)(2) |
| <b>Monitoring Information</b>  |                                |
| Indicator: Sulfur Content of Fuel  |                                |
| Minimum Frequency: quarterly and within 24 hours of any fuel change  |                                |
| Averaging Period: n/a*   |                                |
| Deviation Limit: > 70 gr S/100scf  |                                |
| Basis of monitoring:<br>A common way to determine SO <sub>2</sub> emissions is by determining the amount (percentage) of sulfur in fuel combusted by an emission unit. This quantity along with stack flow rate and quantity of fuel combusted may be used to calculate the amount of SO <sub>2</sub> emitted to the atmosphere. |                                |

\*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

| <b>Unit/Group/Process Information</b>  |                                |
|--|--------------------------------|
| ID No.: GRPHRSG  |                                |
| Control Device ID No.: N/A   | Control Device Type: N/A       |
| <b>Applicable Regulatory Requirement</b>   |                                |
| Name: 40 CFR Part 60, Subpart Da   | SOP Index No.: 60Da-NG         |
| Pollutant: SO <sub>2</sub>   | Main Standard: § 60.43Da(b)(2) |
| <b>Monitoring Information</b>  |                                |
| Indicator: Sulfur Content of Fuel  |                                |
| Minimum Frequency: quarterly and within 24 hours of any fuel change  |                                |
| Averaging Period: n/a*   |                                |
| Deviation Limit: > 70 gr S/100scf  |                                |
| Basis of monitoring:<br>A common way to determine SO <sub>2</sub> emissions is by determining the amount (percentage) of sulfur in fuel combusted by an emission unit. This quantity along with stack flow rate and quantity of fuel combusted may be used to calculate the amount of SO <sub>2</sub> emitted to the atmosphere. |                                |

\*The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

| <b>Unit/Group/Process Information</b>   |                                |
|---|--------------------------------|
| ID No.: GRPHRSG   |                                |
| Control Device ID No.: N/A  | Control Device Type: N/A       |
| <b>Applicable Regulatory Requirement</b>  |                                |
| Name: 40 CFR Part 60, Subpart Da  | SOP Index No.: 60Da-FG         |
| Pollutant: NOX  | Main Standard: § 60.44Da(d)(1) |
| <b>Monitoring Information</b>   |                                |
| Indicator: NOx Concentration  |                                |
| Minimum Frequency: four times per hour  |                                |
| Averaging Period: one hour  |                                |
| Deviation Limit: > 0.15 lb/MMBtu  |                                |
| <p>Basis of monitoring:<br/> It is widely practiced and accepted to calibrate and use a portable analyzer or NOx CEMS/PEMS to measure NOx concentration with procedures such as EPA Test Method 7. 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. Additionally, measuring the NOx concentration is provided as a monitoring option for any control device because an increase in NOx concentration may be indicative of the control device performance. Outlet NOx concentration has been used as an indicator in many federal and state rules.</p> |                                |

| <b>Unit/Group/Process Information</b>   |                                |
|---|--------------------------------|
| ID No.: GRPHRSG   |                                |
| Control Device ID No.: N/A  | Control Device Type: N/A       |
| <b>Applicable Regulatory Requirement</b>  |                                |
| Name: 40 CFR Part 60, Subpart Da  | SOP Index No.: 60Da-MG         |
| Pollutant: NOX  | Main Standard: § 60.44Da(d)(1) |
| <b>Monitoring Information</b>   |                                |
| Indicator: NOx Concentration  |                                |
| Minimum Frequency: four times per hour  |                                |
| Averaging Period: one hour  |                                |
| Deviation Limit: > 0.15 lb/MMBtu  |                                |
| <p>Basis of monitoring:<br/> It is widely practiced and accepted to calibrate and use a portable analyzer or NOx CEMS/PEMS to measure NOx concentration with procedures such as EPA Test Method 7. 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. Additionally, measuring the NOx concentration is provided as a monitoring option for any control device because an increase in NOx concentration may be indicative of the control device performance. Outlet NOx concentration has been used as an indicator in many federal and state rules.</p> |                                |

| <b>Unit/Group/Process Information</b>   |                                |
|---|--------------------------------|
| ID No.: GRPHRSG   |                                |
| Control Device ID No.: N/A  | Control Device Type: N/A       |
| <b>Applicable Regulatory Requirement</b>  |                                |
| Name: 40 CFR Part 60, Subpart Da  | SOP Index No.: 60Da-NG         |
| Pollutant: NOX  | Main Standard: § 60.44Da(d)(1) |
| <b>Monitoring Information</b>   |                                |
| Indicator: NOx Concentration  |                                |
| Minimum Frequency: four times per hour  |                                |
| Averaging Period: one hour  |                                |
| Deviation Limit: > 0.15 lb/MMBtu  |                                |
| <p>Basis of monitoring:<br/> It is widely practiced and accepted to calibrate and use a portable analyzer or NOx CEMS/PEMS to measure NOx concentration with procedures such as EPA Test Method 7. 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. Additionally, measuring the NOx concentration is provided as a monitoring option for any control device because an increase in NOx concentration may be indicative of the control device performance. Outlet NOx concentration has been used as an indicator in many federal and state rules.</p> |                                |

| <b>Unit/Group/Process Information</b>   |                                   |
|---|-----------------------------------|
| ID No.: GRPHRSGSTK  |                                   |
| Control Device ID No.: N/A  | Control Device Type: N/A          |
| <b>Applicable Regulatory Requirement</b>  |                                   |
| Name: 30 TAC Chapter 111, Visible Emissions   | SOP Index No.: R1111              |
| Pollutant: OPACITY  | Main Standard: § 111.111(a)(1)(C) |
| <b>Monitoring Information</b>   |                                   |
| Indicator: Fuel Type  |                                   |
| Minimum Frequency: Annually   |                                   |
| Averaging Period: n/a   |                                   |
| Deviation Limit: Firing of an alternative fuel, either alone or in combination with the specified fuel (pipeline quality natural gas or refinery gas containing no more than 5.0 gr total sulfur per 100 dscf.  |                                   |
| Basis of monitoring:<br>Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only. |                                   |

| <b>Unit/Group/Process Information</b>   |                             |
|---|-----------------------------|
| ID No.: GRPHRSGSTK  |                             |
| Control Device ID No.: N/A  | Control Device Type: N/A    |
| <b>Applicable Regulatory Requirement</b>  |                             |
| Name: 30 TAC Chapter 111, Nonagricultural Processes   | SOP Index No.: R1151        |
| Pollutant: PM   | Main Standard: § 111.151(a) |
| <b>Monitoring Information</b>   |                             |
| Indicator: Fuel Type  |                             |
| Minimum Frequency: Annually   |                             |
| Averaging Period: n/a   |                             |
| Deviation Limit: Firing of an alternative fuel, either alone or in combination with the specified fuel (pipeline quality natural gas or refinery gas containing no more than 5.0 gr total sulfur per 100 dscf.  |                             |
| Basis of monitoring:<br>Industry has demonstrated through performance tests and historical data that opacity and particulate matter standards are consistently met when combustion units fire natural gas only. |                             |

## Compliance Review

1. In accordance with 30 TAC Chapter 60, the compliance history was reviewed on 01/30/2014.
2. The compliance history review evaluated the period from 07/23/2007 to 01/30/2014.  
Site rating: 0.00 (high) Company rating: 1.63 (satisfactory)  
(High < 0.10; Satisfactory > 0.10 and < 55; Unsatisfactory > 55)
3. Has the permit changed on the basis of the compliance history or site/company rating? .....No

Permit reviewer notes: n/a

## 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

Permit reviewer notes: n/a

## Available Unit Attribute Forms

- OP-UA1 - Miscellaneous and Generic Unit Attributes
- OP-UA2 - Stationary Reciprocating Internal Combustion Engine Attributes
- OP-UA3 - Storage Tank/Vessel Attributes
- OP-UA4 - Loading/Unloading Operations Attributes
- OP-UA5 - Process Heater/Furnace Attributes
- OP-UA6 - Boiler/Steam Generator/Steam Generating Unit Attributes
- OP-UA7 - Flare Attributes
- OP-UA8 - Coal Preparation Plant Attributes
- OP-UA9 - Nonmetallic Mineral Process Plant Attributes
- OP-UA10 - Gas Sweetening/Sulfur Recovery Unit Attributes
- OP-UA11 - Stationary Turbine Attributes
- OP-UA12 - Fugitive Emission Unit Attributes
- OP-UA13 - Industrial Process Cooling Tower Attributes
- OP-UA14 - Water Separator Attributes
- OP-UA15 - Emission Point/Stationary Vent/Distillation Operation/Process Vent Attributes
- OP-UA16 - Solvent Degreasing Machine Attributes
- OP-UA17 - Distillation Unit Attributes
- OP-UA18 - Surface Coating Operations Attributes
- OP-UA19 - Wastewater Unit Attributes
- OP-UA20 - Asphalt Operations Attributes
- OP-UA21 - Grain Elevator Attributes
- OP-UA22 - Printing Attributes
- OP-UA24 - Wool Fiberglass Insulation Manufacturing Plant Attributes
- OP-UA25 - Synthetic Fiber Production Attributes
- OP-UA26 - Electroplating and Anodizing Unit Attributes
- OP-UA27 - Nitric Acid Manufacturing Attributes
- OP-UA28 - Polymer Manufacturing Attributes
- OP-UA29 - Glass Manufacturing Unit Attributes
- OP-UA30 - Kraft, Soda, Sulfite, and Stand-Alone Semicheical Pulp Mill Attributes
- OP-UA31 - Lead Smelting Attributes
- OP-UA32 - Copper and Zinc Smelting/Brass and Bronze Production Attributes
- OP-UA33 - Metallic Mineral Processing Plant Attributes
- OP-UA34 - Pharmaceutical Manufacturing
- OP-UA35 - Incinerator Attributes
- OP-UA36 - Steel Plant Unit Attributes
- OP-UA37 - Basic Oxygen Process Furnace Unit Attributes

OP-UA38 - Lead-Acid Battery Manufacturing Plant Attributes  
OP-UA39 - Sterilization Source Attributes  
OP-UA40 - Ferroalloy Production Facility Attributes  
OP-UA41 - Dry Cleaning Facility Attributes  
OP-UA42 - Phosphate Fertilizer Manufacturing Attributes  
OP-UA43 - Sulfuric Acid Production Attributes  
OP-UA44 - Municipal Solid Waste Landfill/Waste Disposal Site Attributes  
OP-UA45 - Surface Impoundment Attributes  
OP-UA46 - Epoxy Resins and Non-Nylon Polyamides Production Attributes  
OP-UA47 - Ship Building and Ship Repair Unit Attributes  
OP-UA48 - Air Oxidation Unit Process Attributes  
OP-UA49 - Vacuum-Producing System Attributes  
OP-UA50 - Fluid Catalytic Cracking Unit Catalyst Regenerator/Fuel Gas Combustion Device/Claus Sulfur Recovery Plant Attributes  
OP-UA51 - Dryer/Kiln/Oven Attributes  
OP-UA52 - Closed Vent Systems and Control Devices  
OP-UA53 - Beryllium Processing Attributes  
OP-UA54 - Mercury Chlor-Alkali Cell Attributes  
OP-UA55 - Transfer System Attributes  
OP-UA56 - Vinyl Chloride Process Attributes  
OP-UA57 - Cleaning/Depainting Operation Attributes  
OP-UA58 - Treatment Process Attributes  
OP-UA59 - Coke By-Product Recovery Plant Attributes  
OP-UA60 - Chemical Manufacturing Process Unit Attributes  
OP-UA61 - Pulp, Paper, or Paperboard Producing Process Attributes  
OP-UA62 - Glycol Dehydration Unit Attributes  
OP-UA63 - Vegetable Oil Production Attributes