

Texas Commission on Environmental Quality
Form OP-UA11
Stationary Turbine Attributes

General:

This form is used to provide a description and data pertaining to all stationary turbines with potentially applicable requirements associated with a particular regulated entity number and application. Each table number, along with the possibility of a corresponding letter (i.e., Table 1a, Table 1b), corresponds to a certain state or federal rule. If the rule on the table is not potentially applicable to a stationary turbine then it should be left blank and need not be submitted with the application. The following stationary turbines are considered off-permit sources and do not need to be listed:

- A. In the Beaumont/Port Arthur Ozone Nonattainment Area affected by Title 30 Texas Administrative Code Chapter 117, Subchapter B (30 TAC Chapter 117, Subchapter B),: Combustion Control at Major Industrial, Commercial, and Institutional Sources in Ozone Nonattainment Areas, Division 1, stationary gas turbines with a megawatt (MW) rating of less than 1.0 MW, unless the unit is placed in service after June 9, 1993, as a functionally identical replacement for existing units subject to the provisions of 30 TAC Chapter 117, Subchapter B.
- B. In counties not affected by 30 TAC Chapter 117, Subchapter B, stationary gas turbines with a heat input at peak load of less than 5.35 gigajoules per hour (5 MMBtu/hr).

If the codes entered by the applicant show negative applicability to the rule or sections of the rule represented on the table, then the applicant need not complete the remainder of the table(s) that correspond to the rule. Further instruction as to which questions should be answered and which questions should not be answered are located in the "Specific" section of the instruction text. The following is included in this form:

Table 1a - 1c: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)
Subpart GG: Stationary Gas Turbines

Table 2a - 2b: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter C: Combustion Control at Major Utility Electric Generation Sources in Ozone Nonattainment Areas

Table 3a - 3c: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter B: Combustion Control at Major Industrial, Commercial, and Institutional Sources in Ozone Nonattainment Areas

Table 4a - 4b: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter E, Division 1: Utility Electric Generation in East and Central Texas

Table 5: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)
Subpart YYYY: National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

Table 6a - 6c: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)
Subpart KKKK: Stationary Combustion Turbines

The application area name from Form OP-1, (Site Information Summary) must appear in the header of each page for the purpose of identification for the initial submittal. The date of the initial form submittal must also be included and should be consistent throughout the application (MM/DD/YYYY). Leave the permit number blank for the initial form submittal. If this form is included as part of the permit revision process, enter the permit number assigned by the TCEQ, the area name (from Form OP-1), and the date of the revision submittal.

Unit attribute questions that do not require a response from all applicants are preceded by qualification criteria in the instructions. If the unit does not meet the qualification criteria, a response to the question is not required. Anytime a response is not required based on the qualification criteria, leave the space on the form blank.

Notwithstanding any qualification criteria in the form instructions or information provided in other TCEQ guidance, the applicant may leave an attribute question blank (or indicate “N/A” for “Not Applicable”) if the attribute is not needed for the applicable requirement determinations of a regulation for a unit.

In some situations, the applicant has the option of selecting alternate requirements, limitations, and/or practices for a unit. Note that these alternate requirements, limitations, and/or practices must have the required approval from the TCEQ executive director and/or the U.S. Environmental Protection Agency Administrator before the federal operating permit application is submitted.

The Texas Commission on Environmental Quality (TCEQ) requires that a Core Data Form be submitted on all incoming registrations unless all of the following are met: the Regulated Entity and Customer Reference Numbers have been issued by the TCEQ and no core data information has changed. The Central Registry, a common record area of the TCEQ, maintains information about TCEQ customers and regulated activities, such as company names, addresses, and telephone numbers. This information is commonly referred to as “core data.” The Central Registry provides the regulated community with a central access point within the agency to check core data and make changes when necessary. When core data about a facility is moved to the Central Registry, two new identification numbers are assigned: the Customer Reference (CN) number and the Regulated Entity (RN) number. The Core Data Form is required if facility records are not yet part of the Central Registry or if core data for a facility has changed. If this is the initial registration, permit, or license for a facility site, then the Core Data Form must be completed and submitted with application or registration forms. If amending, modifying, or otherwise updating an existing record for a facility site, the Core Data Form is not required, unless any core data information has changed. To review additional information regarding the Central Registry, go to the TCEQ Web site at www.tceq.texas.gov/permitting/central_registry/index.html.

Specific:

Table 1a: Title 40 Code of Federal Regulations Part 60 Subchapter GG: Stationary Gas Turbines

Complete Tables 1a – 1c for turbines that commenced construction, reconstruction, or modification prior to February 18, 2005. Turbines constructed, reconstructed or modified after February 18, 2005 are subject to 40 CFR Part 60, Subpart KKKK

Unit ID No.:

Enter the identification number (ID No.) for the stationary gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP index numbers please go to the TCEQ Web site at www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

Peak Load Heat Input:

Select one of the following ranges for the heat input at peak load (100% of the manufacturer's design capacity of the stationary gas turbine at ISO standard day conditions, 288 degrees Kelvin, 60% relative humidity, and 101.3 kilopascals). Enter the code on the form.

| Code | Description |
|--------|---|
| 10- | Heat Input is less than 10 MMBtu/hr (10.7 GJ/hr) |
| 10-100 | Heat Input is greater or equal to 10 MMBtu/hr (10.7 GJ/hr) and less than or equal to (107.2 GJ/hr) 100 MMBtu/hr |
| 100+ | Heat Input is greater than 100 MMBtu/hr (107.2 GJ/hr) |

▼ Continue only if "Peak Load Heat Input" is "10-100" or "100+."

Construction/Modification Date:

Select one of the following ranges based on the most recent construction, modification, or reconstruction date. Enter the code on the form.

| Code | Description |
|-------|---|
| 77- | On or before October 3, 1977 |
| 77-82 | After October 3, 1977 and on or before January 27, 1982 |
| 82-82 | After January 27, 1982 and before October 3, 1982 |
| 82-04 | On or after October 3, 1982 and before July 8, 2004 |
| 2004+ | On or after July 8, 2004 and prior to February 18, 2005 |

▼ Continue only if "Construction/Modification Date" is "77-82," "82-82," "82-04," or "2004+."

Turbine Cycle:

Select one of the cycle types that describe the operation of the turbine. Enter the code on the form.

| Code | Description |
|--------|---|
| SIMPLE | Unit does not recover heat from the gas turbine exhaust to preheat inlet combustion air; or to heat water or generate steam |
| REGEN | Unit recovers heat from the gas turbine exhaust to preheat inlet combustion air |
| COMB | Unit recovers heat from the gas turbine exhaust to heat water or generate steam |

★ If "Turbine Cycle" is "REGEN" and "Peak Load Heat Input" is "10-100" do not complete the remainder of Table 1a or Table 1b, go to Table 1c and provide information beginning with "Sulfur Content."

Subpart GG Service Type:

Select one of the following types of service for the stationary gas turbine. Enter the code on the form (GOP applicants may only select "OTHER" or "EMERG").

| Code | Description |
|--------|--|
| ELCTRC | Electric utility generation |
| MLTRY | Military gas turbines installed for use as a military training facility, or for use in other than a garrison facility |
| EMERG | Emergency or firefighting |
| RESDEV | Used by a manufacturer engaged in research and development of both gas turbine emission control techniques and efficiency improvements and exempted by the EPA Administrator |
| OTHER | Other type of service |

★ If "Subpart GG Service Type" is "MLTRY," "EMERG," or "RESDEV" do not complete the remainder of Table 1a or Table 1b, go to Table 1c and provide information beginning with "Sulfur Content."

★ If "Subpart GG Service Type" is "ELCTRC" do not complete the remainder of Table 1a, go to Table 1b.

★ Complete "Federal Register" only if "Peak Load Heat Input" is "100+," "Construction/Modification Date" is "77-82" and "Subpart GG Service Type" is "OTHER."

Federal Register:

Select one of the following options to describe the Federal Register notification. Enter the code on the form.

| Code | Description |
|-------|--|
| REQ | Required in the September 10, 1979 Federal Register (44 FR 52792) to comply with 40 CFR § 60.332(a)(1) |
| NOREQ | Not required in the September 10, 1979 Federal Register (44 FR 52792) to comply with 40 CFR § 60.332(a)(1) |

- ★ If “Federal Register” is “REQ,” do not complete the remainder of Table 1a or Table 1b, go to Table 1c and provide information beginning with “Sulfur Content.”
- ★ Complete “Manufacturer’s Rated Base Load” only if “Peak Load Heat Input” is “100+,” “Subpart GG Service Type” is “OTHER” and one of the following conditions is met:
 1. “Construction/Modification Date” is NOT “77-82;” or
 2. “Construction/Modification Date” is “77-82” and “Federal Register” is “NOREQ”

Manufacturer’s Rated Base Load:

Select one of the following ranges for manufacturer’s rated base load (load level at which the stationary gas turbine is normally operated) at ISO conditions (288 degrees Kelvin, 60% relative humidity, and 101.3 kilopascals). Enter the code on the form.

| Code | Description |
|------|--|
| 30- | Base load is less than or equal to 30 MW |
| 30+ | Base load is greater than 30 MW |

- ★ If “Manufacturer’s Rated Base Load” is “30+,” do not complete Table 1b, go to Table 1c and provide information beginning with “Sulfur Content.”

**Table 1b: Title 40 Code of Federal Regulations Part 60
Subchapter GG: Stationary Gas Turbines**

Unit ID No.:

Enter the identification number (ID No.) for the stationary gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please go to the TCEQ Web site at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

NO_x Control Method:

Select one of the following options for the NO_x control method. Enter the code on the form.

| Code | Description |
|---------|---|
| H2OSTM | Water or steam injection only |
| H2OSTM+ | Water or steam injection with other add-on controls |
| SCR | Selective catalytic reduction |
| OTHER | Other NO _x control method |
| NONE | No NO _x control method is used |

NO_x Monitoring Method:

Select one of the following options for the NO_x monitoring method. Enter the code on the form.

| Code | Description |
|------|---|
| CMS | Continuous monitoring system for water or steam injection |
| CEMS | Continuous emission monitoring system |
| CPMS | Continuous parameter monitoring system |
| ALT | Previously approved alternate for continuous monitoring of compliance with the applicable NO _x limit under 40 CFR § 60.332 |
| NONE | No continuous monitoring system is used |

Alternate Monitoring ID No.:

If an alternate method for continuous monitoring has been approved, then enter the corresponding unique identifier (maximum 10 characters). If the unique identifier is unavailable, then enter the date of the approval letter in the table column. The unique identifier and/or the date of the approval letter are contained in the compliance file under the appropriate account number. Otherwise, leave this column blank.

★ **Complete “Regulated under Part 75” only if “NO_x Monitoring Method” is “CPMS.”**

Regulated Under Part 75:

Enter “YES,” if the turbine is also regulated under 40 CFR Part 75 and the owner or operator is electing to monitor parameters under either section 2.3 of appendix E to Part 75 or 40 CFR § 75.19(c)(1)(iv)(H). Otherwise, enter “NO.”

★ **Complete “Turbine Combustion Process” only if “Regulated under Part 75” is “NO” and “NO_x Control Method” is not “SCR.”**

Turbine Combustion Process:

Select the combustion process that describes combustion in the gas turbine. Enter the code on the form.

| Code | Description |
|--------|---|
| DIFFLM | Combustion process is diffusion flame combustion |
| LNPMX | Combustion process is lean-premix staged combustion |

Note: Turbines capable of operating in either combustion process mode should submit on separate lines for each combustion process used at the site.

★ **Complete “CEMS Performance Evaluation” only if “Construction/Modification Date” is “2004+” and “NO_x Monitoring Method” is “CEMS.”**

CEMS Performance Evaluation:

Enter “YES,” if the owner or operator is electing to conduct a separate performance evaluation as described in 40 CFR § 60.335(b)(7). Otherwise, enter “NO.”

**Table 1c: Title 40 Code of Federal Regulations Part 60
Subchapter GG: Stationary Gas Turbines**

Unit ID No.:

Enter the identification number (ID No.) for the stationary gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please go to the TCEQ Web site at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

★ Complete “Duct Burner” only if “Turbine Cycle” is “COMB.”

Duct Burner:

Enter “YES,” if the turbine is part of a combined cycle turbine system equipped with supplemental heat (duct burner). Otherwise, enter “NO.”

NO_x Allowance:

Enter “YES,” if the owner or operator is electing to use a NO_x allowance in determining emission limits in 40 CFR § 60.332(a). Otherwise, enter “NO.”

Sulfur Content:

Enter “YES” if compliance is demonstrated by determining the sulfur content of the fuel. Otherwise, enter “NO.”

Fuel Type Fired:

Select one of the following options to describe the type of fuel fired in operation of the turbine. Enter the code on the form.

| Code | Description |
|------|---|
| NG | Natural gas meeting the definition in § 60.331(u) |
| GAS | Other gaseous fuel (SOP applications only) |
| LIQ | Liquid fuel (SOP applications only) |

Fuel Supply:

Select one of the following options to describe the stationary gas turbine fuel supply. Enter the code on the form.

| Code | Description |
|------|--|
| BULK | Stationary gas turbine is supplied its fuel from a bulk storage tank (for SOP applications only) |
| NONE | Stationary gas turbine is supplied its fuel without intermediate bulk storage |

Fuel Monitoring Schedule:

Select the option that describes the fuel monitoring schedule used to demonstrate compliance with sulfur requirement. Enter the code on the form.

| Code | Description |
|------|--|
| 331U | Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored |
| PREV | Previously approved custom fuel monitoring schedule (use only for turbines constructed/modified prior to July 8, 2004 for which a custom fuel monitoring schedule was approved prior to that date) |
| I2 | Monitoring and recording the sulfur content once per unit operating day |
| I3 | Using a custom fuel monitoring schedule approved by the Administrator as required by 40 CFR § 60.334(i)(3) |
| I3I | Using the custom fuel monitoring schedule set forth in 40 CFR § 60.334(i)(3)(i) |
| I3II | Using the custom fuel monitoring schedule set forth in 40 CFR § 60.334(i)(3)(ii) |

★ Complete “Custom Fuel Monitoring Id. No.” only if “Fuel Monitoring Schedule” is “PREV” or “I3.”

Custom Fuel Monitoring ID No.:

If a previously approved custom fuel monitoring schedule or a custom fuel monitoring schedule, under 40 CFR § 60.334(i)(3), approved by the Administrator is being used, then enter the unique identifier (maximum 10 characters). If the unique identifier is unavailable, then enter the date of the approval letter in the table column. The unique identifier and/or the date of the approval letter are contained in the compliance file under the appropriate account number. Otherwise, leave this column blank.

**Table 2a: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter C: Combustion Control at Major Utility Electric Generation Sources in Ozone
Nonattainment Areas**

Complete Tables 2a and 2b only for stationary gas turbines that are:

- included in an SOP application;
- used in an electric power generating system owned or operated by an electric cooperative, municipality, river authority, public utility or a Public Utility Commission (PUC) of Texas regulated utility or any of their successors; and
- located within the Houston/Galveston/Brazoria, Beaumont/Port Arthur, or Dallas/Fort Worth Eight-Hour Ozone Nonattainment Areas.

The Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area consists of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant counties.

Sites located in Parker County, other than independent power producers, have applicability under both 30 TAC Chapter 117, Subchapter C, Division 4 and under 30 TAC Chapter 117, Subchapter E, Division 1: Utility Electric Generation in East and Central Texas and should complete both Tables 2a - 2b and Tables 4a - 4b to determine requirements.

Independent power producers in Parker County are subject only to the requirements of 30 TAC Chapter 117, Subchapter E, Division 1: Utility Electric Generation in East and Central Texas and should complete only Tables 4a - 4b.

Unit ID No.:

Enter the identification number (ID No.) for the gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

SOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). For additional information relating to SOP index numbers, please go to the TCEQ Web site at www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

Date Placed in Service:

Select one of the following options for the date the gas turbine was placed in service. Enter the code on the form.

| Code | Description |
|--------|--|
| 92- | On or before November 15, 1992 |
| 92-93 | After November 15, 1992 and on or before June 9, 1993 |
| 93-FCD | After June 9, 1993 and before the final compliance date in 30 TAC §§ 117.9100, or 117.9120 |
| FCD+ | On or after the final compliance date in 30 TAC §§ 117.9100 or 117.9120 |

- ★ **Complete “Functionally Identical Replacement” only if “Date Placed in Service” is “93-FCD” and located in Beaumont/Port Arthur Ozone Nonattainment Area.**

Functionally Identical Replacement:

Select one of the following codes to identify if the stationary gas turbine as functionally identical replacement for a unit or group of units. Enter the code on the form.

| Code | Description |
|------|--|
| YES | Unit is a functionally identical replacement |
| NO | Unit is not a functionally identical replacement |

- ★ Complete “MW Rating” only if located in Beaumont/Port Arthur or Dallas/Fort Worth Eight-Hour Ozone Nonattainment Areas.

MW Rating:

Select one of the following options for the megawatt rating (MR), as defined in 30 TAC Chapter 117 for the exempt units. Enter the code on the form.

| Code | Description |
|-------|--|
| 1- | MR is less than 1 MW |
| 1-10 | MR is greater than or equal to 1 MW and less than 10 MW |
| 10-30 | MR is greater than or equal to 10 MW and less than 30 MW |
| 30+ | MR is greater than or equal to 30 MW |

Service Type:

Select one of the following options for type of service. Enter the code on the form.

| Code | Description |
|-------|--|
| START | Used solely to power other engines or gas turbines during start-up |
| 850-A | Demonstrated to operate less than 850 hours per year, based on a rolling 12-month average (use for turbines located in the Beaumont-Port Arthur and Dallas-Fort Worth Eight-Hour Ozone Nonattainment Areas only) |
| PK72 | Gas turbine defined as a peaking unit in 40 CFR § 72.2 |
| PKOTH | Gas turbine used for peaking service, not including peaking units as defined in 40 CFR § 72.2 |
| NORM | Gas turbine (other than peaking service) |

- ▼ Do NOT continue if “Date Placed in Service” is “92-93” or “FCD+” and located in Beaumont/Port Arthur or Dallas/Fort Worth Eight-Hour Ozone Nonattainment Areas.
- ▼ Do NOT continue if “Functionally Identical Replacement” is “NO” and located in Beaumont/Port Arthur.
- ▼ Do NOT continue if “Service Type” is “START” or “850-A.”

Fuel Type:

Select one of the following options for fuel type. Enter the code on the form.

| Code | Description |
|---------|-------------------------|
| NATGAS | Firing natural gas only |
| FUELOIL | Firing fuel oil only |

Only one fuel type code may be entered per fuel-firing option. Start each additional fuel-firing option on a different line with a different SOP index number.

| <i>Example:</i> | SOP Index No. | Fuel Type |
|-----------------------|---------------|-----------|
| Fuel-firing Option A: | R7UT-1 | NATGAS |
| Fuel-firing Option B: | R7UT-2 | FUELOIL |

- ★ Complete “RACT NO_x Emission Limitation” only if located in the Beaumont/Port Arthur Ozone Nonattainment Area.

RACT NO_x Emission Limitation:

Title 30 TAC Chapter 117 provides several methods to be in compliance with the applicable limitation standards listed in 30 TAC Chapter 117, Subchapter C. Select one of the following options. Enter the code on the form.

| Code | Description |
|------|---|
| X05 | 30 TAC § 117.1005 [relating to Emission Specifications for Reasonably Available Control Technology] |
| ASES | Unit is complying with an Alternative System-wide Emission Specification under 30 TAC § 117.1015 |
| ACSS | Unit is complying with an Alternative Case Specific Specification under 30 TAC § 117.1025 |

Note: If using some other alternative, such as an alternate reasonably available control technology, alternate means of control, or emission reduction credit, the type of alternate used will need to be explained in a cover letter or some other attachment to the permit application.

- ★ **Complete “ESAD NO_x Emission Limitation” only if located in the Houston/Galveston/Brazoria Ozone Nonattainment Area.**

ESAD NO_x Emission Limitation:

Title 30 TAC Chapter 117 provides several methods to be in compliance with the applicable NO_x limitation standards listed in 30 TAC § 117.1210. Select one of the following options. Enter the code on the form.

| Code | Description |
|-------|---|
| 1201- | Unit complying with any applicable permit limit in a permit issued before January 2, 2001, in lb/MMBtu heat input as specified in § 117.1220 [relating to System Cap] and 30 TAC Chapter 101, Subchapter H, Division 3 |
| 1201+ | Unit complying with any applicable permit limit in a permit issued on or after January 2, 2001, that the owner or operator submitted an application determined to be administratively complete by the E.D. before January 2, 2001, in lb/MMBtu heat input as specified in § 117.1220 [relating to System Cap] and 30 TAC Chapter 101, Subchapter H, Division 3 |
| 12PBR | Unit complying with any applicable permit limit in a permit by rule under which construction commenced by January 2, 2001, that the owner or operator submitted an application determined to be administratively complete by the E.D. before January 2, 2001, in lb/MMBtu heat input as specified in § 117.1220 [relating to System Cap] and 30 TAC Chapter 101, Subchapter H, Division 3 |
| 1210 | Title 30 TAC § 117.1210 [relating to Emission Specifications for Attainment Demonstration] (not complying with any above emission specifications) |

- ★ **Complete “Steam or Water Injection” only if located in the Beaumont/Port Arthur or Dallas/Fort Worth Eight-Hour Ozone Nonattainment Areas.**

Steam or Water Injection:

Enter “YES” if the stationary gas turbine is using steam or water injection to comply with the NO_x emission specifications in either § 117.1005(g) (for Beaumont/Port Arthur Ozone Nonattainment Areas) or § 117.1310(a)(3) (for Dallas/Fort Worth Eight-Hour Ozone Nonattainment Areas). Otherwise, enter “NO.”

- ★ **Complete “EGF” only if located in the Houston/Galveston/Brazoria Ozone Nonattainment Area.**

EGF:

Enter “YES” if the unit meets the definition of an electric generating facility (EGF). Otherwise, enter “NO.”

- ★ **Complete “Title 30 TAC Chapter 116 Permit Limit” only if “RACT NO_x Emission Limitation” is “X05.”**

**Table 2b: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter C: Combustion Control at Major Utility Electric Generation Sources in Ozone
Nonattainment Areas**

Unit ID No.:

Enter the identification number (ID No.) for the gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

SOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). For additional information relating to SOP index numbers, please go to the TCEQ Web site at www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

Title 30 TAC Chapter 116 Permit Limit:

Select one of the following descriptions for the 30 TAC Chapter 116 permit limit. Enter the code on the form.

For units having a 30 TAC Chapter 116 permit in effect on June 9, 1993:

| Code | Description |
|------|---|
| 93Y | NO _x emission limit in 30 TAC § 117.1005 is greater than the NO _x emission limit in a 30 TAC Chapter 116 permit |
| 93N | NO _x emission limit in 30 TAC § 117.1005 is not greater than the NO _x emission limit in a 30 TAC Chapter 116 permit |

For units placed into service after June 9, 1993 and prior to the final compliance date in 30 TAC §§ 117.9100, as functionally identical replacement for an existing unit or group of units and limited to the cumulative maximum rated capacity of the units replaced:

| Code | Description |
|------|---|
| 95Y | Emission limit in 30 TAC § 117.1005 is greater than the NO _x emission limit in any 30 TAC Chapter 116 permit issued after June 9, 1993 |
| 95N | Emission limit in 30 TAC § 117.1005 is not greater than the NO _x emission limit in any 30 TAC Chapter 116 permit issued after June 9, 1993 |

NO_x Monitoring System:

Select one of the following monitoring system options. Enter the code on the form.

| Code | Description |
|-------|---|
| 75-E | Monitoring operating parameters in accordance with 40 CFR Part 75, Appendix E (use only for peaking units) |
| CEMS | Continuous emission monitoring system |
| PEMS | Predictive emission monitoring system in accordance with 30 TAC §§ 117.1040(f), 117.1140(f), 117.1240(g) or 117.1340(g) |
| 1HR | Monitoring operating parameters using the maximum block one-hour emission rate as measured by the 30-day test |
| OTHER | Not using any of the above monitoring methods |

Annual Electric Output:

Select one of the following options for annual electric output. Enter the code on the form.

| Code | Description |
|-------|---|
| 2500- | Annual electric output is less than the product of 2,500 hours and MW rating of the unit |
| 2500+ | Annual electric output is greater than or equal to the product of 2,500 hours and MW rating of the unit |

▼ **Do NOT continue if “Megawatt Rating” is “1-” or “1-10.”**

CO Emission Limitation:

Title 30 TAC Chapter 117 provides options to be in compliance with the applicable CO limitation standards listed in 30 TAC Chapter 117, Subchapter C. Select one of the following options. Enter the code on the form.

| Code | Description |
|------|--|
| 1005 | Title 30 TAC § 117.1005(i) (relating to Emission Specifications for Reasonably Available Control Technology) (use for turbines located in the Beaumont/Port Arthur Ozone Nonattainment Area) |
| 1210 | Title 30 TAC § 117.1210(b)(1) (relating to Emission Specifications for Attainment Demonstration) (use for turbines located in the Houston/Galveston/Brazoria Ozone Nonattainment Area) |
| 1310 | Title 30 TAC § 117.1310(b)(1)(B) (relating to Emission Specifications for Eight-Hour Attainment Demonstration) (use for turbines located in the Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area) |
| ACSS | Turbine is complying with an Alternative Case Specific Specification under 30 TAC §§ 117.1025, 117.1225 or 117.1325 |

CO Monitoring System:

Select one of the following monitoring system options. Enter the code on the form.

| Code | Description |
|-------|---------------------------------------|
| CEMS | Continuous emission monitoring system |
| PEMS | Predictive emission monitoring system |
| OTHER | Other than a CEMS or PEMS |

Ammonia Use:

Enter “YES” if urea or ammonia injection is used to control NO_x emissions. Otherwise, enter “NO.”

▼ **Continue only if “Ammonia Use” is “YES.”**

NH3 Emission Limitation:

Title 30 TAC Chapter 117 provides options to be in compliance with the applicable NH3 limitation standards listed in 30 TAC Chapter 117, Subchapter C. Select one of the following options. Enter the code on the form.

| Code | Description |
|------|---|
| 1005 | Title 30 TAC § 117.1005(j) (relating to Emission Specifications for Reasonably Available Control Technology) (use for turbines located in the Beaumont/Port Arthur Ozone Nonattainment Area) |
| 1210 | Title 30 TAC § 117.1210(b)(2) (relating to Emission Specifications for Attainment Demonstration) (use for turbines located in the Houston/Galveston/Brazoria Ozone Nonattainment Area) |
| 1310 | Title 30 TAC § 117.1310(b)(2) (relating to Emission Specifications for Eight-Hour Attainment Demonstration) (use for turbines located in the Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area) |
| ACSS | Turbine is complying with an Alternative Case Specific Specification under 30 TAC §§ 117.1025, 117.1225 or 117.1325 |

NH3 Monitoring System:

Select one of the following monitoring system options. Enter the code on the form.

| Code | Description |
|------|--|
| CEMS | Continuous emission monitoring system |
| PEMS | Predictive emission monitoring system in accordance with 30 TAC §§ 117.1040(f), 117.1240(g) or 117.1340(g) |

| | |
|-------|---|
| MBAL | Mass balance |
| OXY | Oxidation of ammonia to nitric oxide (NO) |
| STUBE | Stain tube |

**Table 3a: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter B: Combustion Control at Major Industrial, Commercial, and Institutional Sources in
Ozone Nonattainment Areas**

- ★ **Complete Tables 3a - 3c of this form for stationary gas turbines located at a commercial, institutional, and industrial major source of NO_x in the Houston/Galveston/Brazoria, Beaumont/Port Arthur or Dallas/Fort Worth Eight-Hour Ozone Nonattainment Areas or for duct burners used in turbine exhausts located at a commercial, institutional, and industrial major source of NO_x in the Houston/Galveston/Brazoria or Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area.**

Unit ID No.:

Enter the identification number (ID No.) for the stationary gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP index numbers, please go to the TCEQ Web site at www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf

Megawatt Rating:

Select one of the following ranges for the megawatt rating (MR), as defined in 30 TAC Chapter 117. Enter the code on the form.

| Code | Description |
|-------------|---|
| 1- | MR is less than 1 MW |
| 1-10 | MR is greater than or equal to 1 MW and less than 10 MW and unit is not an opt-in unit |
| 10-30 | MR is greater than or equal to 10 MW and less than 30 MW |
| 30+ | MR is greater than or equal to 30 MW |
| 10-OPT | Stationary gas turbine with an MR greater than or equal to 1.0 but less than 10.0 that is exempt from RACT requirements under 30 TAC § 117.103(b) but is included under either a Source Cap or an Alternative Plant-Wide Emission Specification in 30 TAC §§117.123(a) or 117.115(a) as an opt-in unit (for SOP applications in the Beaumont/Port Arthur Ozone Nonattainment Area only) |
| WL10HP | Stationary gas turbine is located in Wise County and the horsepower rating is less than 10,000 horsepower (7.5 MW) |
| W10HP | Stationary gas turbine is located in Wise County and horsepower rating is greater than or equal to 10,000 HP (7.5 MW) but less than 40,230 HP (30 MW) |
| WG40HP | Stationary gas turbine is located in Wise County and the horsepower rating is greater than or equal to 40,230 HP (30 MW) |

- ▼ **Do not continue if located in the Beaumont/Port Arthur Ozone Nonattainment Areas and “Megawatt Rating” is “1-.”**
- ★ **Complete “RACT Date Placed in Service” if located in the Beaumont/Port Arthur Ozone Nonattainment Area.**

RACT Date Placed in Service (ICI):

Select one of the following options for the date stationary gas turbine was placed in service. Enter the code on the form.

| Code | Description |
|--------|--|
| 92- | On or before November 15, 1992 |
| 92-93 | After November 15, 1992 and on or before June 9, 1993 |
| 93-FCD | After June 9, 1993 and before final compliance date specified in 30 TAC §§ 117.9000, 117.9010, or 117.9020 |
| FCD+ | On or after the final compliance date specified in 30 TAC §§ 117.9000, 117.9010 or 117.9020 |

★ **Complete “Functionally Identical Replacement (ICI)” only if “RACT Date Placed in Service” is “93-FCD.”**

Functionally Identical Replacement (ICI):

Enter “YES” if the stationary gas turbine is a functionally identical replacement for a unit or group of units. Otherwise, enter “NO.”

▼ **If located in the Beaumont/Port Arthur Ozone Nonattainment Area, continue only if “Date Placed in Service” is “93-FCD” and “Functionally Identical Replacement” is “YES;” or if “Date Placed in Service” is “92-.”**

Service Type (ICI):

Select one of the following options for type of service. Enter the code on the form.

| Code | Description |
|--------|--|
| EXEMPT | Used in research and testing, performance verification testing, solely to power other engines or turbines during startup, in response to and during the existence of any officially declared disaster or state of emergency, directly and exclusively in agricultural operations or as a chemical processing gas turbine |
| EMERG | TAC §§ 117.103(a)(6)(D), 117.303(a)(6)(D), 117.403(a)(7)(D), or 117.403(b)(2)(D) |
| 850-B | Demonstrated to operate less than 850 hours per year, based on a rolling 12-month average (low annual capacity factor in the Beaumont/Port Arthur Ozone Nonattainment Areas) |
| TURB | Stationary gas turbine |
| DUCT | Duct burner used in turbine exhaust |

▼ **Do not continue if “Service Type” is “EXEMPT” or “EMERG” or if located in the Beaumont/Port Arthur Ozone Nonattainment Areas and “Service Type” is “850-B” or “DUCT.”**

NO_x Emission Limitation (ICI):

Title 30 TAC Chapter 117 provides several methods to be in compliance with the applicable limitation standards listed in 30 TAC Chapter 117, Subchapter B. Select one of the following options. Enter the code on the form.

For GOP applications:

| Code | Description |
|------|---|
| X05 | Title 30 TAC §§ 117.105 or 117.305 (relating to Emission Specifications for Reasonably Available Control Technology) |
| 310A | Title 30 TAC § 117.310(a)(10) (relating to Emission Specifications for Attainment Demonstration) (use in the Houston/Galveston Ozone Nonattainment Area) |
| 410A | Title 30 TAC § 117.410(a)(5) (relating to Emission Specifications for Eight-Hour Attainment Demonstration) (use in the Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area excluding Wise County) |
| 405B | Title 30 TAC §§ 117.405(b)(3)(A) or 117.405(b)(3)(B) (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) (use in Wise County) |

For SOP applications:

For turbines located in the Beaumont/Port Arthur Ozone Nonattainment Areas:

| Code | Description |
|------|--|
| 105 | Title 30 TAC § 117.105 (relating to Emission Specifications for Reasonably Available Control Technology) |
| APES | Unit is complying with an Alternative Plant-Wide Emissions Specification under Title 30 TAC § 117.115 |
| ACSS | Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.125 |
| SC | Unit is complying with a Source Cap under Title 30 TAC § 117.123 |

For turbines located in the Houston/Galveston/Brazoria Ozone Nonattainment Area:

| Code | Description |
|------|---|
| 310D | Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(10) or 117.310(a)(11) (relating to Emission Specifications for Attainment Demonstration) (use in the Houston/Galveston Ozone Nonattainment Area) |
| ACF | Turbine is complying with an annual capacity factor specification under Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(17) |

For turbines located in the Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area:

| Code | Description |
|------|---|
| 410A | Title 30 TAC §§ 117.410(a)(5) or 117.410(a)(6) (relating to Emission Specifications for Eight-Hour Attainment Demonstration) (use in the Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area excluding Wise County) |
| 405B | Title 30 TAC §§ 117.405(b)(3)(A) or 117.405(b)(3)(B) (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) (use in Wise County) |
| ACF | Turbine is complying with an annual capacity factor specification under Title 30 TAC § 117.410(a)(14) |
| SC | Unit is complying with a Source Cap under Title 30 TAC § 117.423 |

★ **Complete “23C-Option” only if “NO_x Emission Limitation” is “SC.”**

23C-Option:

Select one of the following § 117.123(c)(1) or 423(c)(1) options for monitoring. Enter the code on the form.

| Code | Description |
|-------|---|
| 23C-A | CEMS and a totalizing fuel flow meter per §117.123(c)(1)(A) or §117.423(c)(1)(A). |
| 23C-B | PEMS and a totalizing fuel flow meter per §117.123(c)(1)(B) or §117.423(c)(1)(B). |
| 23C-C | Rate measured by hourly emission rate testing per §117.123(c)(1)(C) or §117.423(c)(1)(C). |

**Table 3b: Title 30 Texas Administrative Code Chapter 117
Subchapter B: Combustion Control at Major Industrial, Commercial, and Institutional Sources in
Ozone Nonattainment Areas**

Unit ID No.:

Enter the identification number (ID No.) for the stationary gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary.)

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers, please go to the TCEQ Web site at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

★ **Complete “30 TAC Chapter 116 Limit” only if “NO_x Emission Limitation” is “105.”**

30 TAC Chapter 116 Permit Limit (ICI) :

Select one of the following descriptions for the 30 TAC Chapter 116 permit limit. Enter the code on the form.

For units having a 30 TAC Chapter 116 permit in effect on June 9, 1993:

| Code | Description |
|------|--|
| 93Y | NO _x emission limit in 30 TAC § 117.105 is greater than the NO _x emission limit in a 30 TAC Chapter 116 permit |
| 93N | NO _x emission limit in 30 TAC § 117.105 is not greater than the NO _x emission limit in a 30 TAC Chapter 116 permit |

For units placed into service after June 9, 1993 and prior to the final compliance date specified in 30 TAC §§ 117.9000, 117.9010 or 117.9020, as functionally identical replacement for an existing unit or group of units and limited to the cumulative maximum rated capacity of the units replaced:

| Code | Description |
|------|--|
| 95Y | Emission limit in 30 TAC § 117.105 is greater than the NO _x emission limit in any 30 TAC Chapter 116 permit issued after June 9, 1993 |
| 95N | Emission limit in 30 TAC § 117.105 is not greater than the NO _x emission limit in any 30 TAC Chapter 116 permit issued after June 9, 1993 |

For existing units without a 30 TAC Chapter 116 Permit in effect on June 9, 1993 or for units placed into service after the final compliance date in 30 TAC §§ 117.9000, 117.9010 or 117.9020 as a functionally identical replacement for and existing unit or group of units and limited to the cumulative maximum rated capacity of the units replaced:

| Code | Description |
|------|--|
| N/A | 30 TAC Chapter 117 limits applies for purposes of 30 TAC Chapter 117 |

★ **Complete “EGF System Cap Unit” only if located in the Houston/Galveston/Brazoria Ozone Nonattainment Area.**

EGF System Cap Unit:

Enter “YES” if the engine is used as an electric generating facility to generate electricity for sale to the electric grid. Otherwise, enter “NO.”

Averaging Method:

Select one of the following options for the method used to comply with the applicable emission limitation. Enter the code on the form.

| Code | Description |
|------|--|
| 30D | Complying with the applicable emission limit using a 30-day rolling average |
| 1HR | Complying with the applicable emission limits using a block one-hour average |

NO_x Reduction (ICD):

Select one of the following NO_x reduction options. Enter the code on the form.

| Code | Description |
|-------|--|
| WATER | Water or steam injection |
| POST1 | Post combustion control technique with urea or ammonia injection |
| POST2 | Post combustion control technique with chemical reagent injection other than urea or ammonia |
| OTHER | Other post combustion control method |
| NONE | No NO _x reduction |

NO_x Monitoring System (ICD):

Select one of the following monitoring system options. Enter the code on the form.

| Code | Description |
|-------|--|
| CEMS | Continuous emissions monitoring system |
| PEMS | Predictive emissions monitoring system |
| FRM | Steam to fuel or water to fuel ratio monitoring <i>(for SOP applications in the Beaumont/Port Arthur Ozone Nonattainment Area only)</i> |
| 75ARC | Continuous emission monitoring system as required by 40 CFR Part 75 <i>(for SOP applications only)</i> |
| 75ARP | Predictive emission monitoring system as required by 40 CFR Part 75, Appendix E <i>(for SOP applications only)</i> |
| MERT | Maximum emission rate testing |

**Table 3c: Title 30 Texas Administrative Code Chapter 117
Subchapter B: Combustion Control at Major Industrial, Commercial, and Institutional Sources in
Ozone Nonattainment Areas**

Unit ID No.:

Enter the identification number (ID No.) for the stationary gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary.)

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP index numbers, please go to the TCEQ Web site at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

Fuel Flow Monitoring:

Select one of the following options to indicate how fuel flow is monitored. Enter the code on the form.

| Code | Description |
|---------|---|
| X40A | Fuel flow is with a totalizing fuel flow meter per 30 TAC §§ 117.140(a), 117.340(a) or 117.440(a) |
| X40A2-A | Unit operates with a NO _x and diluent CEMS and monitors stack exhaust flow per 30 TAC §§ 117.140(a)(2)(A), 117.340(a)(2)(A) or 117.440(a)(2)(A) |
| X40A2-B | Unit vents to a common stack with a NO _x and diluent CEMS and uses a single totalizing fuel flow meter per 30 TAC §§ 117.140(a)(2)(B), 117.340(a)(2)(B) or 117.440(a)(2)(B). |
| X40A2-D | The unit is equipped with a continuous monitoring system that continuously monitors horsepower and hours of operation per 30 TAC §§ 117.140(a)(2)(D), 117.340(a)(2)(D) or 117.440(a)(2)(D). |

★ **Complete “CO Emission Limitation” only for SOP applications.**

CO Emission Limitation:

Title 30 TAC Chapter 117 provides several methods to be in compliance with the applicable CO emission specifications of 30 TAC Chapter 117. Select one of the following options. Enter the code on the form.

For turbines located in the Beaumont/Port Arthur Ozone Nonattainment Areas:

| Code | Description |
|------|---|
| 105 | Title 30 TAC § 117.105(c) [relating to Emission Specifications for Reasonably Available Control Technology] (use only in the Beaumont/Port Arthur Ozone Nonattainment Area) |
| ACSS | Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.125 |

For turbines located in the Houston/Galveston/Brazoria Ozone Nonattainment Area:

| Code | Description |
|------|---|
| 310C | Title 30 TAC § 117.310(c)(1) [relating to Emission Specifications for Attainment Demonstration] |
| ACSS | Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.325 |

For turbines located in the Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area:

| Code | Description |
|------|---|
| 410C | Title 30 TAC § 117.410(c)(1) [relating to Emission Specifications for Eight-Hour Attainment Demonstration] (use in the Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area excluding Wise County) |
| 405D | Title 30 TAC § 117.405(d)(1) [relating to Emission Specifications for Reasonably Available Control Technology (RACT)] (use in Wise County) |
| ACSS | Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.425 |

Note: If using some other alternative, such as an alternate reasonably available control technology, alternate means of control, or emission reduction credit, the type of alternate used will need to be explained in a cover letter or some other attachment to the permit application.

CO Monitoring System:

Select one of the following options to indicate how the unit is monitored for CO exhaust emissions. Enter the code on the form.

| Code | Description |
|-------|--|
| CEMS | Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1) |
| PEMS | Predictive emissions monitoring system complying with 30 TAC § 117.8100(b) |
| FRM | Steam to fuel or water to fuel ratio monitoring (for SOP applications in the Beaumont/Port Arthur Ozone Nonattainment Area only) |
| OTHER | Other than CEMS or PEMS or ratio monitoring |

★ **Continue only for SOP applications and only if “NO_x Reduction (ICI)” is “POST1.”**

NH₃ Emission Limitation:

Title 30 TAC Chapter 117 provides several methods to be in compliance with the applicable NH₃ emission specifications of 30 TAC Chapter 117. Select one of the following options. Enter the code on the form.

For turbines located in the Beaumont/Port Arthur Ozone Nonattainment Areas:

| Code | Description |
|------|--|
| 105 | Title 30 TAC § 117.105(g) [relating to Emissions Specifications for Reasonably Available Control Technology] (use only in the Beaumont/Port Arthur Ozone Nonattainment Area) |
| ACSS | Unit is complying with an Alternative Case Specific Specification under 30 TAC § 117.125 |

For turbines located in the Houston/Galveston/Brazoria Ozone Nonattainment Area:

| Code | Description |
|------|---|
| 310C | Title 30 TAC § 117.310(c)(2) [relating to Emission Specifications for Attainment Demonstration] |
| ACSS | Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.325 |

For turbines located in the Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area:

| Code | Description |
|------|---|
| 410C | Title 30 TAC § 117.410(c)(2) [relating to Emission Specifications for Eight-Hour Attainment Demonstration] (use in the Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area excluding Wise County) |
| 405D | Title 30 TAC § 117.405(d)(2) [relating to Emission Specifications for Reasonably Available Control Technology (RACT)] (use in Wise County)] |
| ACSS | Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.125, 117.325 or 117.425 |

Note: If using some other alternative, such as an alternate reasonably available control technology, alternate means of control, or emission reduction credit, the type of alternate used will need to be explained in a cover letter or some other attachment to the permit application.

NH3 Monitoring:

Select one of the following options to indicate how the unit is monitored for NH3 emissions. Enter the code on the form.

| Code | Description |
|-------|---|
| CEMS | Continuous emissions monitoring system |
| PEMS | Predictive emissions monitoring system |
| MBAL | Mass balance |
| OXY | Oxidation of ammonia to nitric oxide (NO) |
| STUBE | Stain tube |

**Table 4a: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter E, Division 1: Utility Electric Generation in East and Central Texas**

Complete this table only for utility stationary gas turbines (including duct burners used in turbine exhaust ducts) generating electric energy for compensation used in an electric power generating system owned or operated by an electric cooperative, independent power producer, municipality, river authority, or public utility, or any of its successors.

Complete this table only for facilities located in Atascosa, Bastrop, Bexar, Brazos, Calhoun, Cherokee, Fannin, Fayette, Freestone, Goliad, Gregg, Grimes, Harrison, Henderson, Hood, Hunt, Lamar, Limestone, Marion, McLennan, Milam, Morris, Nueces, Parker, Palo Pinto, Red River, Robertson, Rusk, Titus, Travis, Victoria, or Wharton County.

Sites owned or operated by an electric cooperative, municipality, river authority, or public utility located in Parker County have applicability under both 30 TAC Chapter 117, Subchapter C, Division 4: Dallas/Fort Worth Eight-Hour Ozone Nonattainment Area Utility Electric Generation Sources and under 30 TAC Chapter 117, Subchapter E, Division 1: Utility Electric Generation in East and Central Texas and should complete both Tables 4a - 4b and Tables 2a - 2b to determine requirements.

Independent power producers in Parker County are subject only to the requirements of 30 TAC Chapter 117, Subchapter E, Division 1: Utility Electric Generation in East and Central Texas and should complete only Tables 4a - 4b.

Unit ID No.:

Enter the identification number (ID No.) for the unit (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary.)

SOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). For additional information relating to SOP index numbers, please go to the TCEQ Web site at www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

Date Placed in Service:

Select one of the following options for the date the unit was placed in service. Enter the code on the form.

| Code | Description |
|------|-------------------------------|
| 95- | Before December 31, 1995 |
| 95+ | On or after December 31, 1995 |

▼ **Continue only if “Date Placed in Service” is “95-.”**

Unit:

Select one of the following options that describe the unit. Enter the code on the form.

| Code | Description |
|----------|---|
| SUP | Turbine used solely to power other engines or gas turbines during start-up |
| HPY | Turbine that operates no more than an average of 10% of the hours per year, averaged over three most recent years, and no more than 20% of the hours in a single year |
| INT | Turbine generates electric energy primarily for internal use |
| HEATIN | Turbine has an annual heat input of less than or equal to 2.2 (1011) Btu/yr |
| TURB264 | Turbine that is subject to TUC § 39.264, except units designated under TUC § 39.264(i) |
| TURB264I | The unit is a turbine that is designated, in accordance with TUC § 39.264(i), to be subjected to TUC § 39.264 |
| TURB | Turbine that is not subject to TUC § 39.264 |

▼ **Continue only if “Unit” is “TURB,” “TURB264,” or “TURB264I.”**

NO_x Emission Limitation:

Title 30 TAC Chapter 117 provides two methods to be in compliance with the applicable NO_x limitation standards listed in 30 TAC §§ 117.3010(1). Select one of the following options. Enter the code on the form.

| Code | Description |
|------|--|
| 3010 | Title 30 TAC § 117.3010(1) [relating to Emission Specifications] |
| SC | Unit is complying with the System Cap under 30 TAC § 117.3020 |

NO_x Monitoring:

Select one of the following options that describe the NO_x monitoring used. Enter the code on the form.

| Code | Description |
|-------|--|
| CEMS | A continuous emissions monitoring system is used to monitor NO _x emissions. |
| PEMS | A parametric emissions monitoring system is used to monitor NO _x emissions. |
| OTHER | A monitoring system other than a CEMS or PEMS is used to monitor NO _x emissions |

Maximum Emission Rate:

Enter “YES” if the owner or operator is using the maximum emission rate measured by the testing conducted in §117.3035(d) to provide substitute emissions compliance when the NO_x monitor is off-line. Otherwise, enter “NO.”

MW Rating:

Enter "YES" if the unit has a MW rating greater than or equal to 1 MW operated more than an average of 10% of the hours of the year, averaged over the three most recent calendar years, or more than 20% of the hours in a single calendar year. Otherwise, enter "NO."

**Table 4b: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter E, Division 1: Utility Electric Generation in East and Central Texas**

Unit ID No.:

Enter the identification number (ID No.) for the unit (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary.)

SOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). For additional information relating to SOP index numbers, please go to the TCEQ Web site at www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

Monitoring Operations:

Enter "YES" if the owner or operator is monitoring operating parameters in accordance with 40 CFR Part 75, Appendix E. Otherwise, enter "NO."

★ **Complete "Steam or Water Injection" only if "Monitoring Parameters" is "NO."**

Steam or Water Injection:

Enter "YES" if the stationary gas turbine is rated less than 30 MW or a peaking gas turbine that uses steam or water injection to comply with the NO_x emission specifications of § 117.3010(1)(B). Otherwise, enter "NO."

Acid Rain:

Enter "YES" if the turbine is an acid rain peaking unit as defined in 40 CFR § 72.2. Otherwise, enter "NO."

Ammonia Use:

Enter "YES" if urea or ammonia injection is used to control NO_x emissions. Otherwise, enter "NO."

▼ **Continue only if "Ammonia Use" is "YES."**

NH₃ Emission Limitation:

Title 30 TAC Chapter 117 provides two methods to be in compliance with the applicable NH₃ limitation standards listed in 30 TAC Chapter 117, Subchapter E. Select one of the following options. Enter the code on the form.

| Code | Description |
|------|---|
| 3010 | Title 30 TAC § 117.3010(2) [relating to Emission Specifications] |
| ACSS | Unit is complying with an Alternative Case Specific Specification under 30 TAC § 117.3025 |

Ammonia Monitoring:

Select one of the following options that describe the ammonia monitoring used. Enter the code on the form.

| Code | Description |
|-------|---|
| CEMS | A continuous emissions monitoring system is used to monitor ammonia emissions. |
| PEMS | A parametric emissions monitoring system is used to monitor ammonia emissions. |
| OTHER | A monitoring system other than a CEMS or PEMS is used to monitor ammonia emissions. |

**Table 5: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)
Subpart YYYY: National Emission Standards for Hazardous Air Pollutants for Stationary
Combustion Turbines**

- ★ **Complete this table only for stationary gas turbines located at major sources of hazardous air pollutants as defined in 40 CFR Part 63, Subpart YYYY that are in service. Turbines being tested at test cells are not subject to the requirements of Subpart YYYY.**

Unit ID No.:

Enter the identification number (ID No.) for the unit (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary.)

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please go to the TCEQ Web site at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

Construction/Reconstruction Date:

Select one of the following options that describes the date for the construction or reconstruction of the turbine. Enter the code on the form.

| Code | Description |
|------|---|
| 03- | Turbine was constructed, modified, or reconstructed on or before 1/14/2003. |
| 03+ | Turbine was constructed, modified, or reconstructed after 1/14/2003. |

- ▼ **Continue only if “Construction/Reconstruction Date” is “03+.”**

Rated Peak Power Output:

Select one of the following options that describe the rated peak power output of the turbine. Enter the code on the form.

| Code | Description |
|------|---|
| 1- | Power output rating is less than one megawatt. |
| 1+ | Power output rating is one megawatt or greater. |

- ▼ **Continue only if “Rated Peak Power Output” is “1+.”**

Type of Service:

Select one of the following options that describe the type of service of the turbine. Enter the code on the form.

| Code | Description |
|-------|---|
| EMERG | Turbine is used exclusively in emergency service. |
| NORM | Turbine is used in non-emergency service. |

- ▼ **Continue only if “Type of Service” is “NORM.”**

Fuel Fired:

Select one of the following options that describe the fuel fired in the turbine. Enter the code on the form.

For purposes of Subpart YYYY, natural gas includes pipeline quality natural gas and similarly constituted fuels such as field gas, refinery gas, and syngas. It does not include landfill gas or gasified municipal solid waste.)

Use the following codes for turbines which are:

- Equipped to fire only natural gas;
- Equipped to fire both natural gas and oil, when firing natural gas;
- Equipped to fire both natural gas and oil, and are located at a site where all new, reconstructed and existing stationary turbines fire oil for no more than an aggregate total of 1000 hours during a calendar year; or
- Operating under GOPs 511, 512, 513, 514, or 517

| Code | Description |
|---------|--|
| NG | Turbine is fired with natural gas. |
| NGFINAL | Turbine is fired with natural gas and EPA has taken final action to require compliance with standards for gas-fired subcategories and published a document in the Federal Register in accordance with 40 CFR § 63.6095(d). |

Use the following code for turbines which are:

- Equipped to fire only oil
- Equipped to fire both natural gas and oil, and are located at a site where all new, reconstructed and existing stationary turbines fire oil for more than an aggregate total of 1000 hours during a calendar year.

| | |
|-----|--|
| OIL | Turbine is fired with distillate oil (SOP applications only) |
|-----|--|

Use the following codes for turbines firing any other type of fuel (including turbines operating under GOP 517):

| | |
|--------|--|
| LFG | Turbine is fired with landfill gas equivalent to 10% or more of the gross heat input on an annual basis. |
| DIGEST | Turbine is fired with digester gas equivalent to 10% or more of the gross heat input on an annual basis. |
| MSWGAS | Turbine is fired with gasified municipal solid waste equivalent to 10% or more of the gross heat input on an annual basis. (SOP applications only) |

▼ **Continue only if “Fuel Fired” is “OIL” or “NGFINAL.”**

Turbine Combustion Process:

Select one of the following options that describe combustion in the gas turbine. Enter the code on the form.

| Code | Description |
|--------|---|
| DIFFLM | Combustion process is diffusion flame combustion |
| LNPMX | Combustion process is lean-premix staged combustion |

Note: Turbines capable of operating in either combustion process mode should submit on separate lines for each combustion process used at the site.

▼ **Continue only if application type is SOP.**

Oxidation Catalyst:

Enter “YES” if the turbine is controlled with an oxidation catalyst. Otherwise, enter “NO.”

★ **Complete “Alternate Limitations” only if “Oxidation Catalyst” is “NO.”**

Alternate Limitations:

Select one of the following options that describe the approved petition for alternate limitations for the turbine. Enter the code on the form.

| Code | Description |
|-------|---------------------------------------|
| ALT | Petition for alternate limitations |
| NOALT | Petition for no alternate limitations |

★ Complete “Previous Performance Test” only if “Oxidation Catalyst” is “YES.”

Previous Performance Test:

Enter “YES” if a previous performance test meeting the requirements of 40 CFR § 63.6110(b)(1)-(5) was conducted. Otherwise, enter “NO.”

★ Complete “Distillate Oil Fired” only if “Fuel Fired” is “NGFINAL.”

Distillate Oil Fired:

Enter “YES” if any quantity of distillate oil is used to fire any new or existing stationary combustion turbine which is located at the same major source as the gas-fired stationary turbine. Otherwise, enter “NO.”

**Table 6a: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)
Subpart KKKK: Stationary Combustion Turbines**

★ Complete this table only for stationary combustion turbines (and heat recovery units operating independent of a stationary combustion engine) that are not part of a test cell/stand.

Unit ID No.:

Enter the identification number (ID No.) for the stationary gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please go to the TCEQ Web site at www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

Unit Type:

Select one of the following options that describe the affected unit type. Enter the code on the form.

| Code | Description |
|--------|--|
| SIMPLE | Simple Combustion Turbine |
| REGEN | Regenerative Cycle Combustion Turbine |
| COMB | Combined Cycle Combustion Turbine |
| CHPT | Combined Heat and Power Combustion Turbine |
| HEATR | Heat Recovery Steam Generating Unit |

Construction/Modification Date:

Select one of the following options that describe the date of commencement of the most recent construction, modification, or reconstruction. Enter the code on the form.

| Code | Description |
|-------|---|
| 2005- | Constructed, reconstructed or modified on or before February 18, 2005 |
| 2005C | Constructed after February 18, 2005 |
| 2005R | Reconstructed after February 18, 2005 |
| 2005M | Modified after February 18, 2005 |

▼ **Do not continue if “Construction/Modification Date” is “2005-.”**

Heat Input:

Select one of the following options that describes the heat input at peak load. Enter the code on the form.

| Code | Description |
|--------|---|
| 10- | Less than 10 MMBtu per hour |
| 10-50 | Equal to or greater than 10 MMBtu per hour but less than 50 MMBtu per hour |
| 50-850 | Equal to or greater than 50 MMBtu per hour but less than 850 MMBtu per hour |
| 850+ | Equal to or greater than 850 MMBtu per hour |

▼ **Do not continue if “Heat Input” is “10-.”**

Subject To Da:

Enter “YES” if the combustion turbine is located at an integrated gasification combined cycle electric utility steam generating unit subject to Da of Part 60. Otherwise, enter “NO.”

▼ **Continue only if “Subject to Da” is “NO.”**

Service Type:

Select one of the following options for type of service. Enter the code on the form.

| Code | Description |
|-------|---|
| EMERG | Emergency combustion turbines, as defined in '60.4420(i) |
| RSRCH | Stationary combustion turbines engaged by manufacturers in research and development of equipment for both combustion turbine emission control techniques and combustion turbine efficiency improvements |
| NOTER | Affected sources not described by the previous two codes |

▼ **Continue only if “Service Type” is “NOTER.”**

NO_x Standard:

Enter “YES” if the output-based NO_x emission standard in Table 1 is being used. Otherwise, enter “NO.”

Fuel Type:

Select one of the following options that describe the fuel type used by the affected source. Enter the code on the form.

| Code | Description |
|-------|---|
| NGO | 100% natural gas |
| NGG+ | Only gaseous fuel, > 50% natural gas |
| GS | Only gaseous fuel, < 50% natural gas |
| NGFO+ | Gaseous fuels and fuel oil, > 50% natural gas |
| GSFO+ | Gaseous fuels and fuel oil, > 50% other gas besides natural gas |
| FNG | Gaseous fuels and fuel oil, > 50% fuel oil |
| FGS | Gaseous fuels besides natural gas and fuel oil, > 50% fuel oil |
| FO | 100% fuel oil |
| BIOG | Only gaseous fuel, > 50% biogas (on a calendar basis) |
| BIOG+ | Gaseous fuels and fuel oil, > 50% biogas (on a calendar basis) |

**Table 6b: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)
Subpart KKKK: Stationary Combustion Turbines**

Unit ID No.:

Enter the identification number (ID No.) for the stationary gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please go to the TCEQ Web site at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

75% of Peak:

Enter "YES" if the combustion turbine operates at less than 75% of peak load or if the turbine operates at temperatures less than 0 °F. Otherwise, enter "NO."

★ Complete "30 MW" only if "75% of Peak" is "YES."

30 MW:

Enter "YES" if the combustion turbine has an output of less than 30 MW. Otherwise, enter "NO."

★ Complete "Turbine Use" only if "NO_x Standard" is "YES" or "Heat input" is "10-50."

Turbine Use:

Select one of the following options that best describes the turbine application. Enter the code on the form.

| Code | Description |
|------|---|
| ELCT | Turbine is used for electric generation |
| MECH | Turbine is used for mechanical drive |

NO_x Control:

Enter "YES" if NO_x emissions are being controlled by steam or water injection. Otherwise, enter "NO."

NO_x Monitoring:

Select one of the following options that best describes how continuous compliance with the applicable NO_x emission limitation is being demonstrated. Enter the code on the form.

| Code | Description |
|--------|---|
| CMS | Continuous Monitoring System for fuel consumption and ratio of water or steam to fuel fired |
| CEMS | A diluent NO _x CEMS is used |
| CPMS | Continuous Parameter Monitoring is used |
| CPMS+ | Continuous Parameter Monitoring according to § 60.4340(b)(2)(iv) |
| ANNUAL | Compliance is demonstrated with annual performance tests |

★ Complete "Common Steam Header" only if "Unit Type" is "COMB" or "CHPT."

Common Steam Header:

Select one of the following options that describe a common steam header possibly associated with the combustion turbine(s). Enter the code on the form.

| Code | Description |
|------|--|
| CMN | A steam header with one or more combustion turbines is utilized |
| CMN+ | A steam header with one or more combustion turbines is utilized for which the Administrator has approved methods for apportioning combined gross energy output |
| CMN- | A steam header is not utilized |

★ **Complete “Duct Burner” only if “Unit Type” is “COMB” or “CHPT.”**

Duct Burner:

Enter “YES” if the heat recovery system includes a duct burner. Otherwise, enter “NO.”

**Table 6c: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)
Subpart KKKK: Stationary Combustion Turbines**

Unit ID No.:

Enter the identification number (ID No.) for the stationary gas turbine (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please go to the TCEQ Web site at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

Location:

Enter “YES” if the turbine is located in a noncontinental area or 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. Otherwise, enter “NO.”

SO₂ Standard:

Enter “YES” if the output-based SO₂ emission standard in § 60.4330(a)(1) is being used. Otherwise, enter “NO.”

★ **Complete “Fuel Monitoring” only if “SO₂ Standard” is “NO.”**

Fuel Monitoring:

Enter “YES” if all fuels used are demonstrated not to exceed the potential emissions standard in § 60.4365. Otherwise, enter “NO.”

★ **Complete “Fuel Quality” only if “Fuel Monitoring” is “YES.”**

Fuel Quality:

Select one of the following codes that describe how continuous compliance with the SO₂ emission standard is being shown. Enter the code on the form.

| Code | Description |
|-------|--|
| SAMP | Fuel is demonstrated not to exceed emission standard by representative fuel sampling data |
| PRCHS | Fuel is demonstrated not to exceed emission standard by characteristics in purchase contract or tariff sheet |

Performance Test:

Select one of the following codes that describe how performance tests are being conducted. Enter the code on the form.

| Code | Description |
|-------------|--|
| SAMP | Sulfur content of the fuel combusted in the turbine is being periodically determined |
| CONC | SO ₂ concentration is being monitored |
| DILNT | SO ₂ concentration and diluent gas concentration are being monitored |

▼ **Continue only if “SO₂ Standard” is “YES,” or if “SO₂ Standard” is “NO,” and “Fuel Monitoring” is “NO.”**

★ **Complete “Intermediate Storage” only if “Fuel Type” is not “FO.”**

Intermediate Storage:

Enter “YES” if fuel is supplied with intermediate storage. Otherwise, enter “NO.”

Fuel Schedules:

Select one of the following codes that describe the schedule on which the sulfur content is monitored. Enter the code on the form.

| Code | Description |
|-------------|--|
| NONE | No custom fuel monitoring schedule is used |
| CUST1 | Custom fuel monitoring schedule described in § 60.4370(c)(1) |
| CUST2 | Custom fuel monitoring schedule based on data collected during the 720-hour sulfur sampling demonstration in Appendix D to Part 75 |
| ADM | Custom fuel monitoring schedule approved by Administrator |

Texas Commission on Environmental Quality
Stationary Turbine Attributes
Form OP-UA11 (Page 1)
Federal Operating Permit Program
Table 1a: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)
Subpart GG: Stationary Gas Turbines

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP/GOP Index No. | Peak Load Heat Input | Construction/Modification Date | Turbine Cycle | Subpart GG Service Type | Federal Register | Manufacturer's Rated Base Load |
|-------------|-------------------|----------------------|--------------------------------|---------------|-------------------------|------------------|--------------------------------|
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Texas Commission on Environmental Quality
Stationary Turbine Attributes
Form OP-UA11 (Page 2)
Federal Operating Permit Program
Table 1b: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)
Subpart GG: Stationary Gas Turbines

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP/GOP Index No. | NO _x Control Method | NO _x Monitoring Method | Alternative Monitoring ID No. | Regulated Under Part 75 | Turbine Combustion Process | CEMS Performance Evaluation |
|-------------|-------------------|--------------------------------|-----------------------------------|-------------------------------|-------------------------|----------------------------|-----------------------------|
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Texas Commission on Environmental Quality
Stationary Turbine Attributes
Form OP-UA11 (Page 3)
Federal Operating Permit Program
Table 1c: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)
Subpart GG: Stationary Gas Turbines

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP/GOP Index No. | Duct Burner | NO _x Allowance | Sulfur Content | Fuel Type Fired | Fuel Supply | Fuel Monitoring Schedule | Custom Fuel Monitoring ID No. |
|-------------|-------------------|-------------|------------------------------|-------------------|-----------------|-------------|--------------------------------|----------------------------------|
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**Texas Commission on Environmental Quality
Stationary Turbine Attributes
Form OP-UA11 (Page 4)
Federal Operating Permit Program**

**Table 2a: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter C: Combustion Control at Major Utility Electric Generation in Ozone Nonattainment Areas**

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | Date Placed in Service | Functionally Identical Replacement | MW Rating | Service Type | Fuel Type | RACT NO _x Emission Limitation | ESAD NO _x Emission Limitation | Steam or Water Injection | EGF |
|-------------|---------------|------------------------|------------------------------------|-----------|--------------|-----------|--|--|--------------------------|-----|
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**Texas Commission on Environmental Quality
 Stationary Turbine Attributes
 Form OP-UA11 (Page 5)
 Federal Operating Permit Program**

**Table 2b: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
 Subchapter C: Combustion Control at Major Utility Electric Generation in Ozone Nonattainment Areas**

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | 30 TAC Chapter 116 Permit Limit | NO _x Monitoring System | Annual Electric Output | CO Emission Limitation | CO Monitoring System | Ammonia Use | NH3 Emission Limitation | NH3 Monitoring System |
|-------------|---------------|--|---|------------------------------|---------------------------|----------------------------|----------------|----------------------------|-----------------------------|
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**Texas Commission on Environmental Quality
Stationary Turbine Attributes
Form OP-UA11 (Page 6)**

Federal Operating Permit Program

**Table 3a: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter B: Combustion Control at Major Industrial, Commercial, Institutional, and
Industrial Sources in Ozone Nonattainment Area**

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP/GOP Index No. | Megawatt Rating | RACT Date Placed in Service (ICI) | Functionally Identical Replacement (ICI) | Service Type (ICI) | NO _x Emission Limitation (ICI) | 23C-Option |
|-------------|-------------------|-----------------|-----------------------------------|--|--------------------|---|------------|
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**Texas Commission on Environmental Quality
 Stationary Turbine Attributes
 Form OP-UA11 (Page 7)
 Federal Operating Permit Program**

**Table 3b: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
 Subchapter B: Combustion Control at Major Industrial, Commercial, Institutional, and
 Industrial Sources in Ozone Nonattainment Areas**

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | 30 TAC Chapter 116 Limit (ICI) | EGF System Cap Unit | Averaging Method | NO _x Reduction (ICI) | NO _x Monitoring System (ICI) |
|-------------|---------------|--------------------------------|---------------------|------------------|---------------------------------|---|
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**Texas Commission on Environmental Quality
 Stationary Turbine Attributes
 Form OP-UA11 (Page 8)
 Federal Operating Permit Program**

**Table 3c: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
 Subchapter B: Combustion Control at Major Industrial, Commercial, Institutional, and
 Industrial Sources in Ozone Nonattainment Areas**

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | Fuel Flow Monitoring | CO Emission Limitation | CO Monitoring System | NH3 Emission Limitation | NH3 Monitoring |
|-------------|---------------|----------------------|------------------------|----------------------|-------------------------|----------------|
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**Texas Commission on Environmental Quality
 Stationary Turbine Attributes
 Form OP-UA11 (Page 9)
 Federal Operating Permit Program**

**Table 4a: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
 Subchapter E, Division 1: Utility Electric Generation in East and Central Texas**

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | Date Placed in Service | Unit | NO _x Emission Limitation | NO _x Monitoring | Max Emission Rate | MW Rating |
|-------------|---------------|------------------------|------|-------------------------------------|----------------------------|-------------------|-----------|
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**Texas Commission on Environmental Quality
 Stationary Turbine Attributes
 Form OP-UA11 (Page 10)
 Federal Operating Permit Program**

**Table 4b: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
 Subchapter E, Division 1: Utility Electric Generation in East and Central Texas**

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | Monitoring Operations | Steam or Water Injection | Acid Rain | Ammonia Use | NH3 Emission Limitation | Ammonia Monitoring |
|-------------|---------------|-----------------------|--------------------------|-----------|-------------|-------------------------|--------------------|
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**Texas Commission on Environmental Quality
Stationary Turbine Attributes
Form OP-UA11 (Page 11)
Federal Operating Permit Program**

Table 5: Title 40 Code of Federal Regulations, Part 63 (40 CFR, Part 63)

Subpart YYYYY: National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | Construction/ Reconstruction Date | Rated Peak Power Output | Type of Service | Fuel Fired | Turbine Combustion Process | Oxidation Catalyst | Alternate Limitations | Previous Performance Test | Distillate Oil Fired |
|-------------|---------------|---|----------------------------------|--------------------|---------------|----------------------------------|-----------------------|--------------------------|---------------------------------|-------------------------|
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Texas Commission on Environmental Quality
Stationary Turbine Attributes
Form OP-UA11 (Page 12)
Federal Operating Permit Program
Table 6a: Title 40 Code of Federal Regulations (40 CFR Part 60)
Subpart KKKK: Stationary Combustion Turbines

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | Unit Type | Construction/ Modification Date | Heat Input | Subject to Da | Service Type | NO _x Standard | Fuel Type |
|-------------|---------------|-----------|------------------------------------|------------|---------------|--------------|--------------------------|-----------|
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Texas Commission on Environmental Quality
Stationary Turbine Attributes
Form OP-UA11 (Page 13)
Federal Operating Permit Program
Table 6b: Title 40 Code of Federal Regulations (40 CFR Part 60)
Subpart KKKK: Stationary Combustion Turbines

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | 75% of Peak | 30 MW | Turbine Use | NO _x Control | NO _x Monitoring | Common Steam Header | Duct Burner |
|-------------|---------------|-------------|-------|-------------|-------------------------|----------------------------|---------------------|-------------|
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Stationary Turbine Attributes
Form OP-UA11 (Page 14)
Federal Operating Permit Program
Table 6c: Title 40 Code of Federal Regulations (40 CFR Part 60)
Subpart KKKK: Stationary Combustion Turbines

| | |
|------------------------------|--|
| Date: | |
| Permit No.: | |
| Regulated Entity No.: | |

| Unit ID No. | SOP Index No. | Location | SO ₂ Standard | Fuel Monitoring | Fuel Quality | Performance Test | Intermediate Storage | Fuel Schedules |
|-------------|---------------|----------|--------------------------|-----------------|--------------|------------------|----------------------|----------------|
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