Form OP-UA11 - Instructions

Stationary Turbine Attributes

# Texas Commission on Environmental Quality

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:

**[Tables 1a](#Table_1a" \o "Tables 1a - 1c) -** [**1c**](#Table_1c)**:** Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)

Subpart GG: Stationary Gas Turbines

[**Tables 2a**](#Table_2a) **-** [**2b**](#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

**[Tables 3a](#Table_3a" \o "Tables 3a - 3c) -** [**3c**](#Table_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

[**Tables 4a**](#Table_4a) **-** [**4b**](#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

[**Table 5**](#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

[**Tables 6a**](#Table_6a) **-** [**6c**](#Table_6c)**:** Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)

Subpart KKKK: Stationary Combustion Turbines

[**Tables 7a**](#Table_7a) **-** [**7b**](#Table_7b): Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart TTTT: Standards of Performance for Greenhouse Gas Emissions for Electric Utility Generating Units

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 website at [www.tceq.texas.gov/permitting/central\_registry/index.html](https://www.tceq.texas.gov/permitting/central_registry/index.html).

Specific:

**[Table 1a:](#Tbl_1a" \o "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 and GOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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**](#Tbl_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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**NOx Control Method:**

Select **one** of the following options for the NOx 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 NOx control method

NONE No NOx control method is used

**NOx Monitoring Method:**

Select **one** of the following options for the NOx 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 NOx 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 “NOx 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.”

* Do not complete “Turbine Combustion Process” if “NOx Monitoring Method” is “ALT.”

**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 “NOx 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](#Tbl_1c" \o "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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

* **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.”

**NOx Allowance:**

Enter “YES,” if the owner or operator is electing to use a NOx 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](#Tbl_2a" \o "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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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.

| *Example:* | **SOP Index No.** | **Fuel Type** |
| --- | --- | --- |
| Fuel-firing Option A: | R7UT-1 | NATGAS |
| Fuel-firing Option B: | R7UT-2 | FUELOIL |

* Complete “RACT NOx Emission Limitation” only if located in the Beaumont/Port Arthur Ozone Nonattainment Area.

**RACT NOx 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 NOx Emission Limitation” only if located in the Houston/Galveston/Brazoria Ozone Nonattainment Area.

**ESAD NOx Emission Limitation:**

Title 30 TAC Chapter 117 provides several methods to be in compliance with the applicable NOx 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 NOx 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 NOx Emission Limitation” is “X05.”

**[Table 2b](#Tbl_2b" \o "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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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 NOx emission limit in 30 TAC § 117.1005 is greater than the NOx emission limit in a 30 TAC Chapter 116 permit

93N NOx emission limit in 30 TAC § 117.1005 is not greater than the NOx 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 NOx 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 NOx emission limit in any 30 TAC Chapter 116 permit issued after June 9, 1993

**NOx 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 NOx 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](#Tbl_3a" \o "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 NOx 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 NOx 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 and GOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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.”

**NOx 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 “NOx 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**](#Tbl_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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

* Complete “30 TAC Chapter 116 Limit” only if “NOx 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 NOx emission limit in 30 TAC § 117.105 is greater than the NOx emission limit in a 30 TAC Chapter 116 permit

93N NOx emission limit in 30 TAC § 117.105 is not greater than the NOx 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 NOx 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 NOx 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

**NOx Reduction (ICI):**

Select **one** of the following NOx 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 NOx reduction

**NOx Monitoring System (ICI):**

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

*(for SOP applications in the Beaumont/Port Arthur Ozone Nonattainment Area only)*

75ARC Continuous emission monitoring system as required by 40 CFR Part 75

*(for SOP applications only)*

75ARP Predictive emission monitoring system as required by 40 CFR Part 75, Appendix E

*(for SOP applications only)*

MERT Maximum emission rate testing

**[Table 3c](#Tbl_3c" \o "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 and GOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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 NOx 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 NOx 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 “NOx 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](#Tbl_4a" \o "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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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.”**

**NOx Emission Limitation:**

Title 30 TAC Chapter 117 provides two methods to be in compliance with the applicable NOx 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

**NOx Monitoring:**

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

Code Description

CEMS A continuous emissions monitoring system is used to monitor NOx emissions

PEMS A parametric emissions monitoring system is used to monitor NOx emissions

OTHER A monitoring system other than a CEMS or PEMS is used to monitor NOx 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 NOx 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](#Tbl_4b" \o "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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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 NOx 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 NOx 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](#Tbl_5" \o "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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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 code 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 1,000 hours during a calendar year; or

Operating under GOPs 511, 512, 513, 514, or 517

Code Description

NG Turbine is fired with natural gas

**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 1,000 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 “NG.”**

**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 “NG.”

**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](#Tbl_6a" \o "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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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.”**

**NOx Standard:**

Enter “YES” if the output-based NOx 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**](#Tbl_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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**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 or equal to 30 MW. Otherwise, enter “NO.”

* Complete “Turbine Use” only if “NOx 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

**NOx Control:**

Enter “YES” if NOx emissions are being controlled by steam or water injection. Otherwise, enter “NO.”

**NOx Monitoring:**

Select **one** of the following options that best describes how continuous compliance with the applicable NOx 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 NOx 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](#Tbl_6c" \o "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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**Location:**

Enter “YES” if the turbine is located in a non-continental 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 SO2 concentration is being monitored

DILNT SO2 concentration and diluent gas concentration are being monitored

CTRCT Maximum sulfur content of fuels combusted is specified with a purchase contract, tariff sheet, transportation contract, or historical 12-month sulfur and GCV sampling data

▼ 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

**[Table 7a](#Tbl_7a" \o "Table 7a):** **Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart TTTT: Standards of Performance for Greenhouse Gas Emissions for Electric Utility Generating Units**

* Do not complete this table for stationary combustion turbines that have been constructed after January 8,2014, or have been reconstructed after June 18, 2014, that do not meet the applicability criteria listed in 40 CFR §60.5509(a)(1)-(2).
* Do not complete this table for stationary combustion turbines that meet any of the conditions specified in 40 CFR §60.5509(b)(1)-(10).

**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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

**Construction/Reconstruction Date:**

Select one of the following options describing the date of commencement of the most recent construction or reconstruction. Enter the code on the form.

**Code Description**

2014- Constructed on or before January 8, 2014

2014+ Constructed after January 8, 2014

2014-R Reconstructed on or before June 18, 2014

2014+R Reconstructed after June 18, 2014

▼ Do not continue if “Construction/Reconstruction Date” is “2014-” or “2014-R.”

**Standard:**

Select one of the following options describing if the unit is complying with the Alternative Standard. Enter the code on the form.

**Code Description**

OUTPUT The Administrator has granted permission for the unit to comply with the alternative net energy output-based standard

INPUT The unit is complying with the heat input-based standard

* Do not complete “Natural Gas Combustion,” “Net Electric Sales,” “Fuel Type,” and “CO2 Emissions Determination” if Standard is “OUTPUT.”

**Natural Gas Combustion:** Select one of the following options describing the natural gas combustion rate. Enter the code on the form.

**Code Description**

90%- The stationary combustion turbine combusts 90% or less natural gas on a heat input basis on a 12‑operating-month rolling average basis

90%+ The stationary combustion turbine combusts more than 90% natural gas on a heat input basis on a 12-operating-month rolling average basis

* Do not complete “Net Electric Sales” if Standard is “Input,” and “Natural Gas Combustion” is “90%-.”

**Net Electric Sales:**

Select one of the following options describing if the unit supplies net-electric sales. Enter the code on the form.

**Code Description**

NET The stationary combustion turbine supplies more than its design efficiency or 50 percent, whichever is less, times its potential electric output as net-electric sales on both a 12-month and 3-year rolling average basis

NO-NET The stationary combustion turbine does not supply net-electric sales

* Do not complete “Fuel Type” if “Standard” is “Input,” “Natural Gas Combustion” is “90%+,” and “Net Electric Sales” is “NET.”

**Fuel Type:**

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

**Code Description**

UNIFORM The stationary combustion turbine is only permitted to burn fuels with a consistent chemical composition (i.e., uniform fuels)

N-UNIFORM The stationary combustion turbine burns non-uniform fuels

▼ Do not continue if “Fuel Type” is “UNIFORM.”

* Do not complete “CO2 Emissions Determination” if “Standard” is “Input,” “Natural Gas Combustion” is “90%+,” and “Net Electric Sales” is “NET.”

**CO2 Emissions Determination:**

Select one of the following options describing CO2 emissions determination. Enter the code on the form.

**Code Description**

60.5535(b) Hourly CO2 mass emissions are determined according to §60.5535(b)(1) – (b)(5)

60.5535(c) Hourly CO2 mass emissions are determined according to the methods outlined under §60.5535(c)(5)(i)-(ii)

**Commercial Operation Date:**

Select one of the following options describing the date of commencement of commercial operation. Enter the code on the form.

**Code Description**

2015- The unit commenced commercial operation before October 23, 2015

2015+ The unit commenced commercial operation on or after October 23, 2015

**[Table 7b](#Tbl_7b" \o "Table 7b)**: **Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart TTTT: Standards of Performance for Greenhouse Gas Emissions for Electric Utility Generating Units**

**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 see the Completing FOP Applications – Additional Guidance on the TCEQ website at [www.tceq.texas.gov/permitting/air/guidance/titlev/tv\_fop\_guidance.html](http://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

* Complete “Emissions Reporting Date” only if “Commercial Operation Date” is “2015-.”

**Emissions Reporting Date:**

Select one of the following options describing when emissions reporting is required to begin. Enter the code on the form.

**Code Description**

OCT2015- The date on which emissions reporting was required to begin passed prior to October 23, 2015

OCT2015+ The date on which emissions reporting was required to begin was after October 23, 2015

**Acid Rain Program:**

Select one of the following options describing Acid Rain Program applicability. Enter the code on the form.

**Code Description**

ARP The unit is subject to the Acid Rain Program

NARP The unit is not subject to the Acid Rain Program

**CO2 Capture:**

Select one of the following options describing if the affected EGU captures CO2. Enter the code on the form.

**Code Description**

CAP The EGU captures CO2 to meet the applicable CO2 emission limit

NOCAP The EGU does not capture CO2 to meet the applicable CO2 emission limit

* **Complete “CO2 Transfer” only if “CO2 Capture” is “CAP.”**

**CO2 Transfer:**

Select one of the following options describing if captured CO2 is transferred. Enter the code on the form.

**Code Description**

TRAN The administrator has granted approval for the captured CO2 from the affected EGU to be transferred to a facility reporting under 40 CFR Part 98, Subpart RR

NOTRAN CO2 captured from the affected EGU is not transferred

▼ Do not continue if “Standard” is “Input,” “Natural Gas Combustion” is “90%-,” “Fuel Type” is “N-UNIFORM,” and “CO2 Emissions Determinations” is “60.5535(c).”

▼ Do not continue if “Standard” is “Input,” “Natural Gas Combustion” is “90%+,” “Net Electric Sales” is “NO-NET,” “Fuel Type” is “N-UNIFORM,” and “CO2 Emissions Determinations” is “60.5535(c).”

**Monitoring:**

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

**Code Description**

CEMS The affected EGU uses CO2 Continuous Emissions Monitoring (CEMS)

NOCEMS The affected EGU does not use CO2 Continuous Emissions Monitoring (CEMS)

* **Complete “Common Stack” only if “Monitoring” is “CEMS.”**

**Common Stack:**

Select one of the following options describing if the EGUs share a common stack. Enter the code on the form.

**Code Description**

C-STK Two or more affected EGUs share a common exhaust stack, are subject to the same emissions standard, and are choosing to monitor emissions at the common stack

I-STK Each affected EGU emits exhaust gases through individual stacks

* **Complete “Multiple Stacks” only if “Monitoring” is “CEMS.”**

**Multiple Stacks:**

Select one of the following describing if multiple stacks are used for exhaust gases. Enter the code on the form.

**Code Description**

M-STK The exhaust gases from the affected EGU are emitted to the atmosphere through multiple stacks, or the exhaust gases are routed to a common stack through multiple ducts and are electing to monitor in the ducts

S-STK The exhaust gases are emitted through a single stack

**Common Electric Generator:**

Select one of the following options describing if a common electric generator is used. Enter the code on the form.

**Code Description**

C-GEN Two or more affected EGUs serve a common electric generator

I-GEN Two or more affected EGUs have individual electric generators

# 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

# Texas Commission on Environmental Quality

| **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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# 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

# Texas Commission on Environmental Quality

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

| **Unit ID No.** | **SOP/GOP****Index No.** | **NOx Control Method** | **NOx Monitoring Method** | **Alternative Monitoring ID No.** | **Regulated Under Part 75** | **Turbine Combustion Process** | **CEMS Performance Evaluation** |
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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

Texas Commission on Environmental Quality

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

| **Unit ID No.** | **SOP/GOP****Index No.** | **Duct Burner** | **NOx Allowance** | **Sulfur Content** | **Fuel Type Fired** | **Fuel Supply** | **Fuel Monitoring Schedule** | **Custom Fuel Monitoring** **ID No.** |
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**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**

**Texas Commission on Environmental Quality**

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| **Unit ID No.** | **SOP Index No.** | **Date Placed in Service** | **Functionally Identical Replacement** | **MW Rating** | **Service Type** | **Fuel Type** | **RACT NOx Emission Limitation** | **ESAD NOx Emission Limitation** | **Steam or Water Injection** | **EGF** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
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**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**

**Texas Commission on Environmental Quality**

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| **Unit ID No.** | **SOP Index No.** | **30 TAC Chapter 116 Permit Limit** | **NOx Monitoring System** | **Annual Electric Output** | **CO Emission Limitation** | **CO Monitoring System** | **Ammonia Use** | **NH3 Emission Limitation** | **NH3 Monitoring System** |
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**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**

**Texas Commission on Environmental Quality**

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| **Unit ID No.** | **SOP/GOP****Index No.** | **Megawatt Rating** | **RACT Date Placed in Service (ICI)** | **Functionally Identical Replacement (ICI)** | **Service Type (ICI)** | **NOx Emission Limitation (ICI)** | **23C-Option** |
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# 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

# Texas Commission on Environmental Quality

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

| **Unit ID No.** | **SOP Index No.** | **30 TAC Chapter 116 Limit (ICI)** | **EGF System Cap Unit** | **Averaging Method** | **NOx Reduction (ICI)** | **NOx Monitoring System (ICI)** |
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# 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

# Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| **Unit ID No.** | **SOP Index No.** | **Fuel Flow Monitoring** | **CO Emission Limitation** | **CO Monitoring System** | **NH3 Emission Limitation** | **NH3 Monitoring** |
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**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 Te**xas

**Texas Commission on Environmental Quality**

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

| **Unit ID No.** | **SOP Index No.** | **Date Placed in Service** | **Unit** | **NOx Emission Limitation** | **NOx Monitoring** | **Max Emission Rate** | **MW Rating** |
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**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**

**Texas Commission on Environmental Quality**

| **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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**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 YYYY: National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines**

**Texas Commission on Environmental Quality**

| **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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**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**

T**exas Commission on Environmental Quality**

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

| **Unit ID No.** | **SOP Index No.** | **Unit Type** | **Construction/Modification Date** | **Heat Input** | **Subject to Da** | **Service Type** | **NOx Standard** | **Fuel Type** |
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**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**

**Texas Commission on Environmental Quality**

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

| **Unit ID No.** | **SOP Index No.** | **75% of Peak** | **30 MW** | **Turbine Use** | **NOx Control** | **NOx 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**

**Texas Commission on Environmental Quality**

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| **Unit ID No.** | **SOP Index No.** | **Location** | **SO2 Standard** | **Fuel Monitoring** | **Fuel Quality** | **Performance Test** | **Intermediate Storage** | **Fuel Schedules** |
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**Boiler/Steam Generator/Steam Generating Unit Attributes**

**Form OP-UA11 (Page 15)**

**Federal Operating Permit Program**

**Table 7a: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart TTTT: Standards of Performance for Greenhouse Gas Emissions for Electric Utility Generating Units**

**Texas Commission on Environmental Quality**

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

| **Unit ID No.** | **SOP Index No.** | **Construction/Reconstruction Date** | **Standard** | **Natural Gas Combustion** | **Net Electric Sales** | **Fuel Type** | **CO2 Emissions Determination** | **Commercial Operation Date** |
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**Boiler/Steam Generator/Steam Generating Unit Attributes**

**Form OP-UA11 (Page 16)**

**Federal Operating Permit Program**

**Table 7b: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart TTTT: Standards of Performance for Greenhouse Gas Emissions for Electric Utility Generating Units**

**Texas Commission on Environmental Quality**

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| **Unit ID No.** | **SOP Index No.** | **Emissions Reporting Date** | **Acid Rain Program** | **CO2 Capture** | **CO2 Transfer** | **Monitoring** | **Common Stack** | **Multiple Stacks** | **Common Electric Generator** |
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