

**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:

<u>Tables 1a - 1c:</u>	Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart GG: Stationary Gas Turbines
<u>Tables 2a - 2b:</u>	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
<u>Tables 3a - 3c:</u>	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
<u>Tables 4a - 4b:</u>	Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117), Subchapter E, Division 1: Utility Electric Generation in East and Central Texas
<u>Table 5:</u>	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
<u>Tables 6a - 6c:</u>	Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart KKKK: Stationary Combustion Turbines
<u>Tables 7a - 7b:</u>	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 Unit

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.

Specific:

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

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

Unit ID No.:

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

SOP/GOP Index No.:

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

Peak Load Heat Input:

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

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

▼ **Continue only if “Peak Load Heat Input” is “10-100” or “100+.”**

Construction/Modification Date:

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

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

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

Turbine Cycle:

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

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

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

Subpart GG Service Type:

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

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

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

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

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

Federal Register:

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

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

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

Manufacturer’s Rated Base Load:

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

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

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

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

Unit ID No.:

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

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html.

NO_x Control Method:

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

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

NO_x Monitoring Method:

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

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

Alternate Monitoring ID No.:

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

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

Regulated Under Part 75:

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

★ **Do not complete “Turbine Combustion Process” if “NO_x 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 “NO_x Monitoring Method” is “CEMS.”**

CEMS Performance Evaluation:

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

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

Unit ID No.:

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

SOP/GOP Index No.:

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

NO_x Allowance:

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

Sulfur Content:

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

Fuel Type Fired:

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

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

Fuel Supply:

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

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

Fuel Monitoring Schedule:

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

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

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

Custom Fuel Monitoring ID No.:

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

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

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

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

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

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

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

Unit ID No.:

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

SOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). For additional information relating to SOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at 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.

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

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

RACT NO_x Emission Limitation:

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

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

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

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

ESAD NO_x Emission Limitation:

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

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

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

Steam or Water Injection:

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

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

EGF:

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

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

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

Unit ID No.:

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

SOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). For additional information relating to SOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at 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	NO _x emission limit in 30 TAC § 117.1005 is greater than the NO _x emission limit in a 30 TAC Chapter 116 permit
93N	NO _x emission limit in 30 TAC § 117.1005 is not greater than the NO _x emission limit in a 30 TAC Chapter 116 permit

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

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

NO_x Monitoring System:

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

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

Annual Electric Output:

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

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

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

CO Emission Limitation:

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

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

CO Monitoring System:

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

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

Ammonia Use:

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

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

NH₃ Emission Limitation:

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

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

NH₃ Monitoring System:

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

Code	Description
CEMS	Continuous emission monitoring system
PEMS	Predictive emission monitoring system in accordance with 30 TAC §§ 117.1040(f), 117.1240(g) or 117.1340(g)
MBAL	Mass balance
OXY	Oxidation of ammonia to nitric oxide (NO)
STUBE	Stain tube

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

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

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)
B10-	Stationary gas turbine is located in Bexar County Ozone Nonattainment Area and MR is less than 10 MW
B30-	Stationary gas turbine is located in Bexar County Ozone Nonattainment Area and MR is less than 30 MW
B30+	Stationary gas turbine is located in Bexar County Ozone Nonattainment Area and MR greater than or equal to 30 MW as specified in § 117.240(b)(1)(B)
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-.”**
- ▼ **Do not continue if located in the Bexar County Ozone Nonattainment Areas and “Megawatt Rating” is “B10-.”**
- ★ **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), 117.203(1)(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.”**

★ **If located in the Bexar County Ozone Nonattainment Area and “Service Type (ICI)” is “TURB” or “DUCT” skip to Table 3b.**

NO_x Emission Limitation (ICI):

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

For GOP applications:

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

For SOP applications:

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

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

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

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

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

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

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

23C-Option:

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

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

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

★ **If located in the Bexar County Ozone Nonattainment Area skip to “NO_x Reduction (ICI).”**

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.

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

30 TAC Chapter 116 Permit Limit (ICI):

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

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

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

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

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

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

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

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

EGF System Cap Unit:

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

Averaging Method:

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

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

NO_x Reduction (ICI):

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

Code	Description
WATER	Water or steam injection
POST1	Post combustion control technique with urea or ammonia injection
POST2	Post combustion control technique with chemical reagent injection other than urea or ammonia
POST3	Post combustion control technique with chemical reagent injection (Bexar County only)
OTHER	Other post combustion control method
NONE	No NO _x reduction

NO_x 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 <i>(for SOP applications in the Beaumont/Port Arthur Ozone Nonattainment Area only)</i>
75ARC	Continuous emission monitoring system as required by 40 CFR Part 75 <i>(for SOP applications only)</i>
75ARP	Predictive emission monitoring system as required by 40 CFR Part 75, Appendix E <i>(for SOP applications only)</i>
MERT	Maximum emission rate testing

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

Unit ID No.:

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

SOP/GOP Index No.:

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

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), 117.240(a)(1), 117.340(a) or 117.440(a)
X40A2-A	Unit operates with a NO _x and diluent CEMS and monitors stack exhaust flow per 30 TAC §§ 117.140(a)(2)(A), 117.240(a)(2)(A), 117.340(a)(2)(A) or 117.440(a)(2)(A)
X40A2-B	Unit vents to a common stack with a NO _x and diluent CEMS and uses a single totalizing fuel flow meter per 30 TAC §§ 117.140(a)(2)(B), 117.240(a)(2)(B), 117.340(a)(2)(B) or 117.440(a)(2)(B)
X40A2-C	The unit is equipped with a continuous monitoring system that continuously monitors horsepower and hours of operation per 30 TAC §§ 117.240(a)(2)(C)
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)

▼ **Do not continue if located in the Bexar County Ozone Nonattainment Area.**

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

CO Emission Limitation:

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

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

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

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

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

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

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

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

CO Monitoring System:

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

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

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

NH₃ Emission Limitation:

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

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

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

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

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

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

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

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

NH₃ Monitoring:

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

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

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

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

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

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

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

Unit ID No.:

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

SOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). For additional information relating to SOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at 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.”**

NO_x Emission Limitation:

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

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

NO_x Monitoring:

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

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

Maximum Emission Rate:

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

MW Rating:

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

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

Unit ID No.:

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

SOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). For additional information relating to SOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at 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 NO_x emission specifications of § 117.3010(1)(B). Otherwise, enter “NO.”

Acid Rain:

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

Ammonia Use:

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

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

NH₃ Emission Limitation:

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

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

Ammonia Monitoring:

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

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

Table 5: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart YYYYY: 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 YYYYY that are in service. Turbines being tested at test cells are not subject to the requirements of Subpart YYYYY.**

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.

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.

Code	Description
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):

Code	Description
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: 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.

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

NO_x Standard:

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

Fuel Type:

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

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

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

Unit ID No.:

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

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at 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 “NO_x Standard” is “YES” or “Heat input” is “10-50.”**

Turbine Use:

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

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

NO_x Control:

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

NO_x Monitoring:

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

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

★ **Complete “Common Steam Header” only if “Unit Type” is “COMB” or “CHPT.”**

Common Steam Header:

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

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

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

Duct Burner:

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

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

Unit ID No.:

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

SOP/GOP Index No.:

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers, please see the Completing FOP Applications – Additional Guidance on the TCEQ website at 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	SO ₂ concentration is being monitored
DILNT	SO ₂ 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: 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.

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 the CO₂ emission limit the turbine is complying with in Table 2 to 40 CFR Part 60, Subpart TTTT. Enter the code on the form.

Code	Description
90+OUT	Turbine that 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-operating month and a 3-year rolling average basis and combusts more than 90% natural gas on a heat input basis on a 12-operating-month rolling average basis complying with 450 kg CO ₂ /MWh of gross energy output
90+ALTOUT	Turbine that 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-operating month and a 3-year rolling average basis and combusts more than 90% natural gas on a heat input basis on a 12 operating month rolling average basis complying with 470 kg CO ₂ /MWh of net energy output
90+INPUT	Turbine that supplies its design efficiency or 50 percent, whichever is less, times its potential electric output or less as net-electric sales on either a 12-operating month or a 3-year rolling average basis and combusts more than 90% natural gas on a heat input basis on a 12 operating month rolling average basis complying with 50 kg CO ₂ /GJ of heat input
90-INPUT	Turbine that combusts 90% or less natural gas on a heat input basis on a 12-operating month rolling average basis complying with 50 kg CO ₂ /GJ to 69 kg CO ₂ /GJ of heat input

★ Do not complete “Fuel Type” if “Standard” is “90+OUT” or “90+ALTOUT.”

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 “90+OUT” or “90+ALTOUT.”

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 CO ₂ mass emissions are determined according to §60.5535(b)(1) – (b)(5)
60.5535(c)	Hourly CO ₂ 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: 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.

★ **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 CO ₂ to meet the applicable CO ₂ emission limit
NOCAP	The EGU does not capture CO ₂ to meet the applicable CO ₂ 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 CO ₂ from the affected EGU to be transferred to a facility reporting under 40 CFR Part 98, Subpart RR
NOTRAN	CO ₂ captured from the affected EGU is not transferred

Monitoring:

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

Code	Description
CEMS	The affected EGU uses CO ₂ Continuous Emissions Monitoring (CEMS)
NOCEMS	The affected EGU does not use CO ₂ 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

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.	NO _x Control Method	NO _x Monitoring Method	Alternative Monitoring ID No.	Regulated Under Part 75	Turbine Combustion Process	CEMS Performance Evaluation

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	NO _x Allowance	Sulfur Content	Fuel Type Fired	Fuel Supply	Fuel Monitoring Schedule	Custom Fuel Monitoring ID No.

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.

Unit ID No.	SOP Index No.	Date Placed in Service	Functionally Identical Replacement	MW Rating	Service Type	Fuel Type	RACT NO _x Emission Limitation	ESAD NO _x Emission Limitation	Steam or Water Injection	EGF

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.

Unit ID No.	SOP Index No.	30 TAC Chapter 116 Permit Limit	NO _x Monitoring System	Annual Electric Output	CO Emission Limitation	CO Monitoring System	Ammonia Use	NH ₃ Emission Limitation	NH ₃ Monitoring System

**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.

Unit ID No.	SOP/GOP Index No.	Megawatt Rating	RACT Date Placed in Service (ICI)	Functionally Identical Replacement (ICI)	Service Type (ICI)	NO _x Emission Limitation (ICI)	23C-Option

**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/GOP Index No.	30 TAC Chapter 116 Limit (ICI)	EGF System Cap Unit	Averaging Method	NO _x Reduction (ICI)	NO _x Monitoring System (ICI)

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.

Unit ID No.	SOP/GOP Index No.	Fuel Flow Monitoring	CO Emission Limitation	CO Monitoring System	NH ₃ Emission Limitation	NH ₃ Monitoring

Stationary Turbine Attributes
Form OP-UA11 (Page 9)
Federal Operating Permit Program
Table 4a: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter E, Division 1: Utility Electric Generation in East and Central Texas
Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.

Unit ID No.	SOP Index No.	Date Placed in Service	Unit	NO _x Emission Limitation	NO _x Monitoring	Max Emission Rate	MW Rating

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	NH ₃ Emission Limitation	Ammonia Monitoring

Stationary Turbine Attributes
Form OP-UA11 (Page 11)
Federal Operating Permit Program
Table 5: Title 40 Code of Federal Regulations, Part 63 (40 CFR, Part 63)
Subpart YYYYY: National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines
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

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
Texas 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	NO _x Standard	Fuel Type

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	NO _x Control	NO _x Monitoring	Common Steam Header	Duct Burner

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.

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

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	Fuel Type	CO ₂ Emissions Determination	Commercial Operation Date

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.

Unit ID No.	SOP Index No.	Emissions Reporting Date	Acid Rain Program	CO ₂ Capture	CO ₂ Transfer	Monitoring	Common Stack	Multiple Stacks	Common Electric Generator