Form OP-UA5 - Instructions

Process Heater/Furnace Attributes

Texas Commission on Environmental Quality

General:

This form is used to provide a description and data pertaining to all process heaters and furnaces 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 process heater and furnace, then it should be left blank and need not be submitted with the application. The following process heaters and furnaces are considered off-permit sources and do not need to be listed:

A. In counties affected by Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117), water heaters, process heaters, and furnaces that do not fire liquid or solid fuel and have a maximum rated capacity less than 1.0 MMBtu/hr, unless the unit is placed in service after June 9, 1993, as a functionally identical replacement for existing units subject to the provisions 30 TAC Chapter 117, Subchapter B.

B. In counties not affected by 30 TAC Chapter 117, process heaters and furnaces with a heat input capacity less than or equal to 40 MMBtu/hr that do not fire liquid or solid fuel.

C. In counties not affected by 30 TAC Chapter 117, water heaters with a heat input capacity less than 10 MMBtu/hr and do not fire liquid or solid fuel.

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 corresponds 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](#Table1a) - [1c](#Table1c): 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, for Process Heaters

[Table 2](#Table2): Title 30 Texas Administrative Code Chapter 112 (30 TAC Chapter 112), Control of Air Pollution from Sulfur Compounds

[Tables 3a](#Table3a) - [3b](#Table3b): 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, for Furnaces

[Table 4](#Table4): Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111), Subchapter A, Division 2: Incineration

[Tables 5a](#Table5a) - [5b](#Table5b): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart EEE: Hazardous Waste Combustors

[**Table 6a**](#Table_6a) **-** [**6g**](#Table_6g)**: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart DDDDD: Industrial, Commercial, and Institutional Process Heaters**

The Texas Commission on Environmental Quality (TCEQ) regulated entity number (RNXXXXXXXXX) and 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), the date of the revision submittal, and the regulated entity number.

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 (EPA) 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](http://www.tceq.texas.gov/permitting/central_registry).

Specific:

[Table 1a](#TBL1a" \o "Table 1a): 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, for Process Heaters

* Complete only for sites that are major sources of NOx, as defined in 30 TAC § 117.10, and are located in the Houston/Galveston/Brazoria, Beaumont/Port Arthur Eight-Hour, or Dallas/Fort Worth Eight-Hour ozone nonattainment areas.

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).

Unit Type:

Select one of the following types of units from the list below. Enter the code on the form.

Code Description

PRHTR Process Heater (in the Houston/Galveston/Brazoria ozone nonattainment area this code should not be used to describe pyrolysis reactors)

PYRO Pyrolysis reactors

BIF Designated as a Boiler or Industrial Furnace regulated as an existing facility by the EPA in Title 40 Code of Federal Regulations Part 266 (40 CFR Part 266), Subpart H (as was in effect on June 9, 1993)

* Continue if:
* The “Unit Type” is “PRHTR;” or
* If the “Unit Type” is “PYRO” or “BIF” and the site is located in the Houston/Galveston/Brazoria ozone nonattainment area.

Maximum Rated Capacity:

Select one of the following ranges for maximum rated capacity (MRC), as defined in 30 TAC Chapter 117. Enter the code on the form.

For units in SOP applications:

“Unit Type” is “PRHTR” and located in the Beaumont/Port Arthur ozone nonattainment area:

Code Description

40- MRC is less than 40 MMBtu/hr

40-100 MRC is greater than or equal to 40 MMBtu/hr but less than 100 MMBtu/hr

100-200 MRC is greater than or equal to 100 MMBtu/hr but less than 200 MMBtu/hr

200+ MRC is greater than or equal to 200 MMBtu/hr

“Unit Type” is “PRHTR,” “PYRO,” or “BIF” and located in the Houston/Galveston/Brazoria ozone nonattainment area:

Code Description

2- MRC is less than or equal to 2 MMBtu/hr

2-40 MRC is greater than 2 MMBtu/hr but less than 40 MMBtu/hr

40-100 MRC is greater than or equal to 40 MMBtu/hr but less than 100 MMBtu/hr

100-200 MRC is greater than or equal to 100 MMBtu/hr but less than 200 MMBtu/hr

200+ MRC is greater than or equal to 200 MMBtu/hr

“Unit Type” is “PRHTR” and located in the Dallas/Fort Worth Eight-Hour ozone nonattainment area:

Code Description

5- MRC is less than or equal to 5 MMBtu/hr

5-40 MRC is greater than 5 MMBtu/hr but less than 40 MMBtu/hr

40-100 MRC is greater than or equal to 40 MMBtu/hr but less than 100 MMBtu/hr

100+ MRC is greater than or equal to 100 MMBtu/hr

For units in GOP applications:

Code Description

G2- MRC is less than or equal to 2 MMBtu/hr

G2-5 MRC is greater than 2 MMBtu/hr but less than or equal to 5 MMBtu/hr

G5-40 MRC is greater than 5 MMBtu/hr but less than 40 MMBtu/hr

G40-100 MRC is greater than or equal to 40 MMBtu/hr but less than 100 MMBtu/hr

* **Do not continue if:**
* **The “Maximum Rated Capacity” is “2-” or “G2-;” or**
* **If the site is located in the Dallas/Fort Worth Eight- Hour ozone nonattainment area and “Maximum Rated Capacity” is “5-” or “G2-5;” or**
* **If the site is located in the Beaumont/Port Arthur ozone nonattainment area and “Unit Type” is “PRHTR” and “Maximum Rated Capacity” is “40-” or “G2-,” “G2-5,” or “G5-40.”**
* Complete “RACT Date Placed in Service” only if the site is located in the Beaumont/Port Arthur ozone nonattainment area.

RACT Date Placed in Service:

Select one of the following options for the date 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 specified in 30 TAC §§ 117.9000, 117.9010, 117.9020(1)

FCD+ After June 9, 1993, and on or after the final compliance date specified in 30 TAC §§ 117.9000, 117.9010, 117.9020(1)

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

Functionally Identical Replacement:

Select one of the following codes to identify if the unit is a functionally identical replacement for a unit or group of units that were in service on or before November 15, 1992. Enter the code on the form.

Code Description

YES Unit is a functionally identical replacement

NO Unit is not a functionally identical replacement

* Do not continue if located in the Beaumont/Port Arthur ozone nonattainment area and “RACT Date Placed in Service” is “93-FCD” and “Functionally Identical Replacement” is “NO,” or “RACT Date Placed in Service” is “92-93” or “FCD+.”

Fuel Types:

Select one or more of the following options for fuel type(s) fired. Enter the code(s) on the form.

For units in SOP applications:

Code Description

NG Natural gas

GS Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases (refinery gas or mixtures, etc.)

LFG Landfill Gas

ORG Renewable non-fossil fuel gas other than landfill gas

LQD Liquid

WD Wood

H50-A Gaseous fuel containing more than 50% hydrogen (H2) by volume, over an annual basis, fuel gas sampled and analyzed every three hours

H50-8 Gaseous fuel containing more than 50% H2 by volume, over an eight-hour period, fuel gas sampled and analyzed every three hours

SLD Solid fuel other than wood

For units in GOP applications:

Code Description

NG Natural gas (GOP applicants for GOPs 511, 512, 513, and 514 must select this option, other applicants may select this option)

GS Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases (refinery gas or mixtures, etc.)

LFG Landfill Gas

ORG Renewable non-fossil fuel gas other than landfill gas

If a fuel-firing option consists of multiple fuel types being combusted simultaneously, enter the fuel type code for each fuel in a separate column on the same line, with a single SOP index number. If there are more than three fuels being combusted simultaneously, use multiple lines, and start each line with a different SOP index number. Start each additional fuel-firing option on a different line with a different SOP index number.

| **Example:** | **SOP Index No.** |  | **Fuel Type(s)** |  |
| --- | --- | --- | --- | --- |
| Fuel-firing Option A: | R7ICI-1 | GS | LQD | WD |
| Fuel-firing Option B: | R7ICI-2A | GS | LQD | WD |
|  | R7ICI-2B | SLD |  |  |
| Fuel-firing Option C: | R7ICI-3 | LQD |  |  |

* Complete “Annual Heat Input” only if “Unit Type” is “PRHTR” or “PYRO” or “BIF” and “Maximum Rated Capacity” is “40-100,” “100-200,” “100+” or “200+.”

Annual Heat Input:

Select one of the following options for the annual heat input. Enter the code on the form.

“Unit Type” is “PRHTR,” “PYRO,” or “BIF” with a “Maximum Rated Capacity” designation of “40-100”:

Code Description

28- Annual heat input is less than or equal to 2.8 (1011) Btu/yr., based on rolling 12-month average (Low annual capacity factor heaters)

28+ Annual heat input is greater than 2.8 (1011) Btu/yr., based on rolling 12-month average

“Unit Type” is “PRHTR,” “PYRO,” or “BIF” with a “Maximum Rated Capacity” designation of “100+”, “100-200”, or “200+”:

Code Description

22- Annual heat input is less than or equal to 2.2 (1011) Btu/yr., based on rolling 12-month average (Low annual capacity factor heaters)

22+ Annual heat input is greater than 2.2 (1011) Btu/yr., based on rolling 12-month average

NOx Emission Limitation:

Title 30 TAC Chapter 117 provides options 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

103B Title 30 TAC § 117.103(b)(1) exemption (for process heaters in the Beaumont/Port Arthur ozone nonattainment area potentially subject to RACT)

403B Title 30 TAC § 117.403(b)(1) exemption (for process heaters in Wise County potentially subject to RACT)

103A Title 30 TAC § 117.103(a)(2) exemption (use for process heaters, potentially subject to ESAD, located in the Beaumont/Port Arthur ozone nonattainment area and rated less than 40 MMBtu/hr)

103C Title 30 TAC § 117.103(c) exemption (use for process heaters, potentially subject to ESAD located in the Beaumont/Port Arthur ozone nonattainment area rated greater than 40 MMBtu/hr and qualifies as a low annual capacity unit.)

110A Title 30 TAC § 117.110(a)(2) (use for process heaters located in the Beaumont/Port Arthur ozone nonattainment area and rated greater than 40 MMBtu/hr and does not qualify as a low annual capacity unit. These units are subject to ESAD requirements)

310A Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8) [relating to mass emissions cap and trade in Chapter 101, Subchapter H, Division 3 and Emission Specifications for Attainment Demonstration]

410A Title 30 TAC § 117.410(a)(3) (use for units located in the Dallas/Fort Worth Eight-Hour ozone nonattainment area)

405B Title 30 TAC § 117.405(b)(1) (use for units located in Wise County)

For SOP applications:

For process heaters located in the Beaumont/Port Arthur ozone nonattainment area:

Code Description

105 Title 30 TAC § 117.105 (relating to Emission Specifications for Reasonably Available Control Technology)

110A Title 30 TAC § 117.110(a) (use for process heaters located in the Beaumont/Port Arthur ozone nonattainment area and rated greater than 40 MMBtu/hr and does not qualify as a low annual capacity unit.)

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 PRHTR or PYRO or BIF units located in the Houston/Galveston/Brazoria ozone nonattainment area:

Code Description

310D Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(8) [relating to mass emissions cap and trade in Chapter 101, Subchapter H, Division 3 and Emission Specifications for Attainment Demonstration]

ACF Process heater is complying with an annual capacity factor specification under Title 30 TAC §§ 117.310(d)(3) and 117.310(a) (17)

For process heaters located in the Dallas/Fort Worth Eight-Hour ozone nonattainment area:

**Code** **Description**

410A Title 30 TAC § 117.410(a)(3) (use for units located in the Dallas/Fort Worth Eight-Hour ozone nonattainment area excluding Wise County)

405B Title 30 TAC § 117.405(b)(1) (use for units located in Wise County)

ACF Process heater 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 “Opt-in Unit” only if the site is located in the Beaumont-Port Arthur ozone nonattainment area and “Emission Limitation” from Table 1a is “APES” or “SC.”

Opt-in Unit:

Enter “YES” if the unit is an opt-in unit listed in 30 TAC § 117.115(f) that the owner or operator has chosen to include into the Plant-wide emission or Source Cap to comply with § 117.105 (for non-gas-fired process heaters). Otherwise, enter “NO.”

* 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 NOx, CO, O2 (or CO2) 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). (Must use for § 117.115(f) opt-in units in the Beaumont/Port Arthur ozone nonattainment area)

[Table 1b:](#TBL1b" \o "Table 1b) 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, Process Heaters

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).

Diluent CEMS:

Enter “YES” if the process heater operates with a carbon dioxide (CO2) CEMS to monitor diluent. Otherwise, enter “NO.”

* Complete “30 TAC Chapter 116 Limit” only if the site is located in the Beaumont/Port Arthur ozone nonattainment area.

30 TAC Chapter 116 Limit:

Select one of the following descriptions of 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 Nitrogen oxides (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 MRC 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 in service after the final compliance date of 30 TAC §§ 117.9000, 117.9010 or 117.9020 as a functionally identical replacement for an existing unit or group of units and limited to the cumulative MRC of the units replaced:

Code Description

N/A NOx emission limit in 30 TAC § 117.105 applies for purposes of 30 TAC Chapter 117

NOx Emission Limit Basis:

Select one of the following options for complying with the nitrogen oxides (NOx) emission limit. Enter the code on the form.

Code Description

30DAY Complying with the applicable emission limit in lb/MMBtu on a rolling 30-day average

BLK1-LB Complying with the applicable emission limit using a block one-hour average

OTHER Other emission limit basis

NOx Reduction:

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

Code Description

FRCFG Forced flue gas recirculation

INDFG Induced flue gas recirculation

WATER Water or steam injection

POST1 Post combustion control technique with ammonia or urea injection

POST2 Post combustion control technique with chemical reagent injection other than ammonia or urea

OTHER Other NOx reduction method

NONE No NOx reduction

* Complete “Common Stack Combined” only if the unit is located in the Beaumont/Port Arthur ozone nonattainment area

Common Stack Combined:

Enter “YES” if the unit is vented through a common stack; the total rated heat input from combined units is greater than or equal to 250 MMBtu/hr: and the annual combined heat input is greater than 2.2 (1011) Btu/yr. Otherwise, enter “NO.”

* Complete “Fuel Type Heat Input” only if “NOx Emission Limitation” is “APES” (Beaumont/Port Arthur ozone nonattainment area).

Fuel Type Heat Input:

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

Code Description

GAS50 Process heater is fired with gaseous and liquid fuel, and derives more than 50% annual heat input from gaseous fuel

LIQ50 Process heater is fired with gaseous and liquid fuel, and derives more than 50% annual heat input from liquid fuel

SLDCOMBO Process heater is fired with a combination of either gaseous and solid fuels or of liquid and solid fuels

NONE Process heater is not fired with any of the above combinations

Note: Process heaters that derive exactly 50% annual heat input from gaseous fuel and 50% from liquid fuel may choose either GAS50 or LIQ50.

NOx Monitoring System:

Select the appropriate code to indicate the type of monitoring used. Enter the code on the form.

For units without a monitoring system:

Code Description

MERT Maximum emission rate testing [in accordance with 30 TAC § 117.8000]

For all other units:

Code Description

CEMS Continuous emissions monitoring system

PEMS Predictive emissions monitoring system

75ARCCEMS Continuous emissions monitoring system, used to comply with Title 40 Code of Federal Regulations Part 75 (40 CFR Part 75) (pertaining to Acid Rain)

75ARPPEMS Predictive emissions monitoring system, used to comply with 40 CFR Part 75 (pertaining to Acid Rain)

[Table 1c](#TBL1c" \o "Table 1c): 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, Process Heaters

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).

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)

* Do not complete “CO Emission Limitation” or “CO Monitoring System” if “Unit Type” is “BIF” and “NOx Emission Limitation” is “310D.”

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 process heaters located in the Beaumont/Port Arthur ozone nonattainment area:

Code Description

105F Title 30 TAC § 117.105(f) [relating to Emission Specifications for Reasonably Available Control Technology] (use for units subject to RACT in the Beaumont/Port Arthur ozone nonattainment area)

110C Title 30 TAC § 117.110(c)(1) [relating to Emission Specifications for Attainment Demonstration] (use for units subject to ESAD requirements in the Beaumont/Port Arthur ozone nonattainment area)

ACSS Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.125(a)

For PRHTR or PYRO or BIF units located in the Houston/Galveston/Brazoria ozone nonattainment area:

**Code Description**

310C Title 30 TAC § 117.310(c)(1) 400 ppmv option

310CPPMV Title 30 TAC § 117.310(c)(1) 775 ppmv option for wood-fuel-fired process heaters

ACSS Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.325(a)

For process heaters 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 Attainment Demonstration] (use for units subject to ESAD requirements in the Dallas/Fort Worth Eight-Hour ozone nonattainment area)

405D Title 30 TAC § 117.405(d)(1) (use for units subject to Reasonably Available Control Technology (RACT) requirements in Wise County in the Dallas/Fort Worth Eight-Hour ozone nonattainment area)

ACSS Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.425(a)

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

PEMS Predictive emissions monitoring system

OTHER Other than CEMS or PEMS

* Complete “NH3 Emission Limitation” only if “NOx Reduction” 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 process heaters located in the Beaumont/Port Arthur ozone nonattainment area:

**Code Description**

105G Title 30 TAC § 117.105(g) [relating to Emission Specifications for Reasonably Available Control Technology]

110C Title 30 TAC § 117.110(c)(2) [relating to Emission Specifications for Attainment Demonstration]

ACSS Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.125(a)

For PRHTR or PYRO or BIF units 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(a)

For process heaters 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 Attainment Demonstration]

405D Title 30 TAC § 117.405(d)(2) [use for units subject to Reasonably Available Control Technology (RACT) requirements in Wise County in the Dallas/Fort Worth Eight-Hour ozone nonattainment area]

ACSS Unit is complying with an Alternative Case Specific Specification under Title 30 TAC § 117.425

* Complete “NH3 Monitoring” only if “NOx Reduction” is “POST1.”

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 2](#TBL2" \o "Table 2): Title 30 Texas Administrative Code Chapter 112 (30 TAC Chapter 112) Control of Air Pollution from Sulfur Compounds

* Complete for SOP applications and Municipal Solid Waste Landfill (MSWL) GOP applications only.
* Complete only for liquid fuel-fired heaters or furnaces.

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).

Effective Stack Height:

Enter “YES” if the effective stack height is less than the standard effective stack height. Otherwise, enter “NO.”

Emission Point ID No.:

Enter the identification number (ID No.) of the emission point(s) (maximum 10 characters) to which the process heater or furnace routes emissions. This number should be consistent with the unit identification number listed on Form OP-SUM.

[Table 3a:](#TBL3a" \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, Furnaces

* Complete only for sites that are major sources of NOx, as defined in 30 TAC § 117.10, and are located in the Houston/Galveston/Brazoria or Dallas/Fort Worth Eight-Hour ozone nonattainment areas.

Note: The Dallas/Fort Worth Eight-Hour ozone nonattainment area consists of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant counties.

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).

Unit Type:

Select one of the following types of units from the list below. Enter the code on the form.

For units located in the Houston/Galveston/Brazoria ozone nonattainment area:

Code Description

HTFUR Metallurgical heat treating furnace

RHFUR Metallurgical reheat furnace

PLRF Pulping liquor recovery furnace

INDFUR Industrial Furnace - Regulated as an existing facility by the EPA in Title 40 Code of Federal Regulations Part 266 (40 CFR Part 266), Subpart H (as was in effect on June 9, 1993)

OTHER Molten sulfur oxidation furnace or other furnace not listed above

For units located in the Dallas/Fort Worth Eight-Hour ozone nonattainment area:

Code Description

EARC Electric arc melting furnace used in steel production

HTFUR Metallurgical heat treating furnace

RHFUR Metallurgical reheat furnace

LSCO Lead smelting blast (cupola) and reverberatory furnaces used in conjunction

GLASS Container glass melting furnaces

MWCOLD Mineral wool-type cold-top electric fiberglass melting furnaces

MWREGEN Mineral wool-type fiberglass regenerative furnaces

MWNON Mineral wool-type fiberglass non-regenerative gas-fired furnaces

INDFUR Industrial Furnace - Regulated as an existing facility by the EPA in Title 40 Code of Federal Regulations Part 266 (40 CFR Part 266), Subpart H (as was in effect on June 9, 1993)

PLRFOTHER Pulping liquor recovery furnace, molten sulfur oxidation furnace or other furnace not listed above

Maximum Rated Capacity:

Select one of the following ranges for maximum rated capacity (MRC), as defined in 30 TAC Chapter 117. Enter the code on the form.

Code Description

2- MRC is less than or equal to 2 MMBtu/hr

2-20 MRC is greater than 2 MMBtu/hr but less than 20 MMBtu/hr

20-40 MRC is greater than 20 MMBtu/hr but less than 40 MMBtu/hr

40-100 MRC is greater than or equal to 40 MMBtu/hr but less than 100 MMBtu/hr

100-200 MRC is greater than or equal to 100 MMBtu/hr but less than 200 MMBtu/hr

200+ MRC is greater than or equal to 200 MMBtu/hr

* Do not continue if:
* The “Unit Type” is “OTHER;” or
* If the “Unit Type” is “HTFUR” or “RHFUR” and “Maximum Rated Capacity” is “2-“ or “2-20.”
* Do not continue if:
* The site is located in the Dallas/Fort Worth Eight-Hour ozone nonattainment area and “Unit Type” is “EARC,” “PLRFOTHER,” or “INDFUR;” or
* If the “Unit Type” is “GLASS,” “MWCOLD,” “MWREGEN” or “MWNON” and “Maximum Rated Capacity” is “2”.

NOx Emission Limitation:

Title 30 TAC Chapter 117 provides options 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.

Code Description

310A Title 30 TAC § 117.310(a) (use for units located in the Houston/Galveston ozone nonattainment area.)

410A Title 30 TAC § 117.410(a)(8) or (a)(10) (use for units located in the Dallas/Fort Worth
Eight Hour ozone nonattainment area)

ACF Furnace is complying with an annual capacity factor specification under
Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(17) or Title 30 TAC § 117.410(a)(14)

SC Unit is complying with a Source Cap under Title 30 TAC § 117.423(a) (use for units located in the Dallas/Fort Worth Eight-Hour ozone nonattainment area)

* 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 NOx, CO, O2 (or CO2) CEMS and a totalizing fuel flow meter per § 17.423(c)(1)(A)

23C-B PEMS and a totalizing fuel flow meter per § 117.423(c)(1)(B)

23C-C Rate measured by hourly emission rate testing per or § 117.423(c)(1)(C)

NOx Emission Limit Basis:

Select one of the following options for complying with the nitrogen oxides (NOx) emission limit. Enter the code on the form.

Code Description

30DAY Complying with the applicable emission limit in lb/MMBtu on a rolling 30-day average

BLK1-LB Complying with the applicable emission limit in lb/hr using a block one-hour average

OTHER Other emission limit basis

NOx Reduction:

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 ammonia or urea injection

POST2 Post combustion control technique with chemical reagent injection other than ammonia or urea

OTHER Other NOx reduction method

NONE No NOx reduction

NOx Monitoring System:

Select the appropriate code to indicate the type of monitoring used. Enter the code on the form.

For units without a monitoring system:

Code Description

MERT Maximum emission rate testing [in accordance with 30 TAC § 117.8000]

For all other units:

Code Description

CEMS Continuous emissions monitoring system

PEMS Predictive emissions monitoring system

75ARCCEMS Continuous emissions monitoring system, used to comply with Title 40 Code of Federal Regulations Part 75 (40 CFR Part 75) (pertaining to Acid Rain)

75ARPPEMS Predictive emissions monitoring system, used to comply with 40 CFR Part 75 (pertaining to Acid Rain)

[Table 3b](#TBL3b" \o "Table 3b): 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, Furnaces

* Complete only for sites that are major sources of NOx, as defined in 30 TAC § 117.10, and are located in the Houston/Galveston/Brazoria or Dallas/Fort Worth Eight-Hour ozone nonattainment areas.

Note: The Dallas/Fort Worth Eight-Hour ozone nonattainment area consists of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant counties.

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).

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 §§ 117.340(a) or 117.440(a)

X40A2-A Unit operates with a NOx and diluent CEMS and monitors stack exhaust flow per 30 TAC §§ 117.340(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 §§ 117.340(a)(2)(B) or 117.440(a)(2)(B)

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.

Code Description

310C Title 30 TAC § 117.310(c)(1) [relating to Emission Specifications for Attainment Demonstration] (use for units in the Houston/Galveston/Brazoria ozone nonattainment area)

410C Title 30 TAC § 117.410(c)(1) [relating to Emission Specifications for Attainment Demonstration] (use for units requirements in the Dallas/Fort Worth Eight-Hour ozone nonattainment area)

ACSS Unit is complying with an Alternative Case Specific Specification under Title 30 TAC §§ 117.325(a) or 117.425(a)

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

PEMS Predictive emissions monitoring system

OTHER Other than CEMS or PEMS

* Continue only if “NOx Reduction” 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.

Code Description

310C Title 30 TAC § 117.310(c)(2) [relating to Emission Specifications for Attainment Demonstration]

410C Title 30 TAC § 117.410(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 or 117.425

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 4](#TBL4" \o "Table 4): Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111), Subchapter A, Division 2: Incineration

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).

Hazardous Waste:

Enter “YES” if the unit combusts hazardous waste as a fuel for energy recovery and the facility accepts hazardous waste as a fuel from off-site sources which involves a commercial transaction or a change of ownership of the waste and the facility is not regulated at 40 CFR Part 264 or 265, Subpart O. Otherwise, enter “NO”.

* Continue only if “Hazardous Waste” is “YES.”

Monitor:

Enter “YES” if the unit has a continuous opacity or carbon monoxide monitor (or equivalent). Otherwise, enter “NO.”

[Table 5a](#TBL5a" \o "Table 5a): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart EEE: Hazardous Waste Combustors

* Complete this table for HCl production furnaces that burn hazardous waste, and are located at an area source or a major source, and do not meet the criteria in Table 1 of § 63.1200(b)

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](https://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

Existing Source:

Enter “YES” if the furnace is an existing source (construction or reconstruction commenced on or before April 20, 2004). Otherwise, enter “NO.”

Area Source:

Enter “YES” if the furnace is an area source as defined under § 63.2. Otherwise, enter “NO.”

* Complete “Elective Standards” only if “Area Source” is “YES.”

Elective Standards:

Enter “YES” if the area source is electing to comply with § 63.1218 per § 266.100(b)(3). Otherwise, enter “NO.”

DIOXIN/FURAN Standard:

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

Code Description

CO-1 Complying with the CO standard in § 63.1218(a)(1) or (b)(1)

THC-1 Complying with the THC standard in § 63.1218(a)(1) or (b)(1)

CO/THC Standard:

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

Code Description

CO-5 Complying with the CO standard in § 63.1218(a)(5)(i) or (b)(5)(i)

THC-5 Complying with the THC standard in § 63.1218(a)(5)(ii) or (b)(5)(ii)

TOT-Cl Standard:

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

Code Description

PPMV-6 Complying with the 25 ppmv standard in § 63.1218(a)(6)(i) or (b)(6)(i)

SRE-6 Complying with the system removal efficiency (SRE) standard in § 63.1218(a)(6)(ii) or (b)(6)(ii)

[Table 5b](#TBL5b" \o "Table 5b): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart EEE: Hazardous Waste Combustors

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](https://www.tceq.texas.gov/permitting/air/guidance/titlev/tv_fop_guidance.html).

Baghouse:

Enter “YES” if the furnace is equipped with a baghouse. Otherwise, enter “NO.”

* Complete “PM Detection” only if “Baghouse” is “YES.”

PM Detection:

Enter “YES” if a PM detection system is used. Otherwise, enter “NO.”

Dioxin-Listed:

Enter “YES” if the furnace burns the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027. Otherwise, enter “NO.”

DRE Previous Test:

Enter “YES” if previous testing was used to document conformance with the DRE standard. Otherwise, enter “NO.”

* Complete “Feed Zone” only if “DRE Previous Test” is “YES.”

Feed Zone:

Enter “YES” if the source feeds waste at a location other than the normal flame zone. Otherwise, enter “NO.”

**[Table 6a](#TBL6a" \o "Table 6a): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart DDDDD: Industrial, Commercial, and Institutional Process Heaters**

**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).

**Commence:**

Select one of the following construction date options for the source. Enter the code on the form.

**Code Description**

NEW Source is new (commenced construction after June 4, 2010)

RECON Source is reconstructed (commenced reconstruction after June 4, 2010)

EXIST Source is existing (commenced construction or reconstruction on or before June 4, 2010)

**Table Applicability:**

Select one of the following options that describes the applicability of emission limitations in §63.7500(a)(1)-Tables 1 or 2. Enter the code on the form.

**Code Description**

SFF10 The unit burns coal/solid fossil fuel AND has heat input equal to or greater than 10 MMBtu/hr (subject to emission limits in Table 1 or 2)

BM10 The unit burns biomass/bio-based solid fuel AND has heat input equal to or greater than 10 MMBtu/hr (subject to emission limits in Table 1 or 2)

HLIQ10 The unit burns heavy liquid fuel AND has heat input equal to or greater than 10 MMBtu/hr (subject to emission limits in Table 1 or 2)

LLIQ10 The unit burns light liquid fuel AND has heat input equal to or greater than 10 MMBtu/hr (subject to emission limits in Table 1 or 2)

GAS210 The unit burns Gas 2 fuel AND has heat input equal to or greater than 10 MMBtu/hr (subject to emission limits in Table 1 or 2)

T3.1LTD The unit qualifies as a limited use boiler or process heater as defined in §63.7575 (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)‑Table 3.1)

T3.1TS The unit is designed to utilize a continuous oxygen trim system (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)-Table 3.1)

T3.1G1 The unit is designed to burn Gas 1 fuel AND has no continuous oxygen trim AND has heat input equal to or less than 5 MMBtu/hr (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)-Table 3.1)

T3.1G2 The unit is designed to burn Gas 2 fuel AND has heat input equal to or less than 5 MMBtu/hr (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)-Table 3.1)

T3.1LL The unit is designed to burn light liquid fuel AND has heat input equal to or less than 5 MMBtu/hr (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)-Table 3.1)

T3.2G1 The unit is designed to burn Gas 1 fuel AND has no continuous oxygen trim AND has heat input less than 10 MMBtu/hr but greater than 5 MMBtu/hr (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)-Table 3.2)

T3.2G2 The unit is designed to burn Gas 2 fuel AND has heat input less than 10 MMBtu/hr but greater than 5 MMBtu/hr (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)-Table 3.2)

T3.2LL The unit is designed to burn light liquid fuel AND has heat input less than 10 MMBtu/hr but greater than 5 MMBtu/hr (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)-Table 3.2)T3.2HL The unit is designed to burn heavy liquid fuel AND has heat input less than 10 MMBtu/hr (not subject to Table 1 or 2 emission limits but must comply with work practice standards in

§63.7500(a)(1)-Table 3.2)

T3.2S The unit is designed to burn solid fuel AND has heat input less 10 MMBtu/hr (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)‑Table 3.2)

T3.3G1 The unit is designed to burn Gas 1 fuel AND has no continuous oxygen trim AND has heat input equal to or greater than 10 MMBtu/hr (not subject to Table 1 or 2 emission limits but must comply with work practice standards in §63.7500(a)(1)-Table 3.3)

* **Continue only if “Table Applicability” is “SFF10”, “BM10”, “HLIQ10”, “LLIQ10”, or “GAS210.”**

**HCl Emission:**

Select one of the following hydrogen chloride emission limit options. Enter the code on the form.

**Code Description**

BTU-HCL Emission limits for HCl in pounds per MMBtu heat input

STM-HCL Emission limits for HCl in pounds per MMBtu steam output (for steam generating units only)

MWH-HCL Emission limits for HCl in pounds per MWh power output (for boilers that generate electricity only)

**HCl-CMS:**

Select one of the following hydrogen chloride continuous monitoring system (CMS) options. Enter the code on the form.

**Code Description**

NONE A CMS is not being used

HCL-CEMS An HCl CEMS is used

SO2-CEMS An SO2 CEMS is used

**[Table 6b](#TBL6b" \o "Table 6b): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart DDDDD: Industrial, Commercial, and Institutional Process Heaters**

* **Complete this table only if “HCl-CMS” is “NONE.”**

**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).

**HCl-CD:**

Select one of the following hydrogen chloride control device options. Enter the code on the form.

**Code Description**

DS Dry scrubber is being used

WAS A wet acid scrubber is used

PWS-PH A particulate wet scrubber with pH effluent operating limit

OTHER Other control methods are being used

NONE A control device is not used

**HCl-Test:**

Select one of the following hydrogen chloride performance test options. Enter the code on the form.

**Code Description**

PT Compliance is demonstrated by conducting a performance test for HCl

NPT A performance test is not being used

**HCl-FA:**

Select one of the following hydrogen chloride fuel analysis options. Enter the code on the form.

**Code Description**

FA Compliance is demonstrated by conducting fuel analysis for HCl

NFA Fuel analysis is not being used

**HCl-FloMon:**

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

**Code Description**

FMS Operating limit requires a flow monitoring system for HCl

NFMS Flow monitoring system is not required for HCl

**HCl-pHMon:**

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

**Code Description**

PHMON Operating limit requires a pH monitoring system for HCl

NPH A pH monitoring system is not required for HCl

**[Table 6c](#TBL6c" \o "Table 6c): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart DDDDD: Industrial, Commercial, and Institutional Process Heaters**

**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).

**Hg Emission:**

Select one of the following hydrogen chloride emission limit options. Enter the code on the form.

**Code Description**

BTU-HG Emission limits for Hg in pounds per MMBtu heat input

STM-HG Emission limits for Hg in pounds per MMBtu steam output (for steam generating units only)

MWH-HG Emission limits for Hg in pounds per MWh power output (for boilers that generate electricity only)

**Hg-InjRate:**

Enter “YES” if an operating limit requires a monitoring system to measure sorbent injection rate for Hg. Otherwise, enter “NO.”

Hg-CMS:

Select one of the following mercury continuous monitoring system (CMS) options. Enter the code on the form.

**Code Description**

NONE A CMS is not being used

HG-CEMS An Hg CEMS is used

HGCMS A CMS other than an Hg CEMS is used

* **Continue on Table 6c only if “Hg-CMS” is “NONE”. If “Hg-CMS” is HG-CEMS” or “HGCMS,” skip to Table 6d.**

**Hg-CD:**

Select one of the following mercury control device options. Enter the code on the form.

**Code Description**

DS Dry scrubber is being used

WAS A wet acid scrubber is used

ESP-WS An electrostatic precipitator with a wet scrubber is used

ACI Activated carbon injection is used

OTHER Other control methods are being used

NONE A control device is not used

**Hg-Test:**

Select one of the following Hg performance test options. Enter the code on the form.

**Code Description**

PT Compliance is demonstrated by conducting a performance test for Hg.

NPT A performance test is not being used.

**Hg-FA:**

Select one of the following Hg fuel analysis options. Enter the code on the form.

**Code Description**

HGFA Compliance is demonstrated by conducting fuel analysis for Hg.

NFA Fuel analysis is not being used.

**[Table 6d](#TBL6d" \o "Table 6d): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart DDDDD: Industrial, Commercial, and Institutional Process Heaters**

**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).

* **Complete “BM Subcategory” only if “Table Applicability” is “BM10.”**

**BM Subcategory:**

Select one of the following options that describes subcategory of the boiler or process heater as listed in §63.7499. Enter the code on the form.

**Code Description**

7499(I) The unit is a stoker/sloped grate/other unit designed to burn wet biomass/bio-based solid

7499(D) The unit is a stoker/sloped grate/other unit designed to burn kiln dried biomass/bio-based solid

7499(E) The unit is a fluidized bed designed to burn biomass/bio-based solid

7499(F) The unit is a suspension burner designed to burn biomass/bio-based solid

7499(J) The unit is a Dutch oven/pile burner designed to burn biomass/bio-based solid

7499(G) The unit is a fuel cell designed to burn biomass/bio-based solid

7499(H) The unit is a hybrid suspension/grate burner designed to burn wet biomass/bio-based solid

**PM/TSM Emission:**

Select one of the following particulate matter or total selected metals emission limit options. Enter the code on the form.

**Code Description**

BTU-PM Emission limits for PM in pounds per MMBtu heat input

BTU-TSM Emission limits for TSM in pounds per MMBtu heat input

STM-PM Emission limits for PM in pounds per MMBtu steam output (for steam generating units only)

STM-TSM Emission limits for TSM in pounds per MMBtu steam output (for steam generating units only)

MWH-PM Emission limits for PM in pounds per MWh power output (for boilers that generate electricity only)

MWH-TSM Emission limits for TSM in pounds per MWh power output (for boilers that generate electricity only)

* **Continue on Table 6d only if “PM/TSM-Emission” is “BTU-TSM”, “STM-TSM”, or “MWH-TSM.”. If “PM/TSM Emission” is “BTU-PM,” “STM-PM,” or “MWH-PM,” skip to Table 6e.**

TSM-CMS:

Select one of the following continuous monitoring system (CMS) options. Enter the code on the form.

**Code Description**

TSMCEMS TSM CEMS is used

TSMCMS TSM CMS other than a TSM CEMS is used

NONE CMS is not being used

* **Continue on Table 6d only if “TSM-CMS” is “NONE”. If “TSM-CMS” is “TSMCEMS” or “TSMCMS,” skip to Table 6e.**

**TSM-Test:**

Select one of the following TSM performance test options. Enter the code on the form.

**Code Description**

PT Compliance is demonstrated by conducting a performance test for TSM

NPT A performance test is not being used

**TSM-FA:**

Select one of the following TSM fuel analysis options. Enter the code on the form.

**Code Description**

FA Compliance is demonstrated by conducting fuel analysis for TSM

NFA Fuel analysis is not being used

**[Table 6e](#TBL6e" \o "Table 6e): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart DDDDD: Industrial, Commercial, and Institutional Process Heaters**

* **Complete this table only if “only if “PM/TSM Emission” is “BTU-PM,” “STM-PM,” or “MWH-PM.”**

**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).

* **Complete “PM-250” only if “Table Applicability” is “SFF10” or “HLL10.”**

**PM-250:**

Select one of the following options for the average annual heat input. Enter the code on the form.

**Code Description**

250+ Average annual heat input rate is greater than 250 MMBtu per hour from solid fossil fuel and/or heavy liquid fuel

250- Average annual heat input rate is less than or equal to 250 MMBtu per hour from solid fossil fuel and/or heavy liquid fuel

**PM-CMS:**

Select one of the following continuous monitoring system (CMS) options. Enter the code on the form.

**Code Description**

PMCEMS PM CEMS is used

PMCMS PM CMS other than a PM CEMS is used

PMCPMS PM CPMS is used to monitor a PM control device

NONE CMS is not being used. (not a valid entry if “PM-250” is “250+”)

* **Continue on Table 6e only if “PM-CMS” is “NONE” or “PMCMS”.** **If “PM-CMS” is “PMCEMS” or “PMCPMS,” skip to Table 6f.**

**PM-CD:**

Select one of the following PM control device options. Enter the code on the form.

**Code Description**

BLD A Fabric Filter with a bag leak detection system is used

WS A Wet Scrubber is used

ESP-WS An Electrostatic Precipitator with a Wet Scrubber is used

OTHER Other control methods are being used

NONE A control device is not used

**PM-Test:**

Select one of the following PM performance test options. Enter the code on the form.

**Code Description**

PT Compliance is demonstrated by conducting a performance test for PM

NPT A performance test is not being used

**PM-FM:**

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

**Code Description**

FM Operating limit requires the use of a flow monitoring system

NFM A flow monitoring system is not required

**PM-PMON:**

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

**Code Description**

PMON Operating limit requires the use of a pressure monitoring system

NO A pressure monitoring system is not required

**[Table 6f](#TBL6f" \o "Table 6f): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart DDDDD: Industrial, Commercial, and Institutional Process Heaters**

* **Complete this table only if “TSM-CMS” is “NONE” or “PM-CMS” is PMCMS” or “NONE.”**

**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).

**Opacity-CD:**

Select one of the following control device options. Enter the code on the form.

**Code Description**

BLD A fabric filter with a bag leak detection system is used

FF A fabric filter without a bag leak detection system is used

ESP-WS An electrostatic precipitator with a wet scrubber is used

ESP An electrostatic precipitator without a wet scrubber is used

DRY A dry control system is used

OTHER Other control methods are being used

NONE A control device is not used

* **Continue on Table 6f only if “Opacity-CD” is “FF”, “ESP”, or “DRY****.” If “Opacity-CD” is “BLD,” “ESP‑WS,” “OTHER,” or “NONE,” skip to Table 6g.**

**COMS:**

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

**Code Description**

COMS A continuous opacity monitoring system is used

NOCOMS A continuous opacity monitoring system is not used

* **Continue on Table 6f only if “COMS” is “NOCOMS.”** **If “COMS” is “COMS,” skip to Table 6g.**

**OPT-Test:**

Select one of the following opacity performance test options. Enter the code on the form.

**Code Description**

OPT Compliance is demonstrated by conducting a performance test for opacity

NPTO A performance test is not being used

**[Table 6g](#TBL6g" \o "Table 6g): Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart DDDDD: Industrial, Commercial, and Institutional Process Heaters**

**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).

* **Complete “SFF Subcategory” only if “Table Applicability” is “SFF10.”**

**SFF Subcategory:**

Select one of the following options that describes subcategory of the boiler or process heater as listed in § 63.7499. Enter the code on the form

**Code Description**

7499(A) The unit is a pulverized coal/solid fossil fuel unit

7499(B) The unit is a stoker designed to burn coal/solid fossil fuel

7499(C) The unit is a fluidized bed unit designed to burn coal/solid fossil fuel (without integrated heat exchanger)

7499(S) The unit is a fluidized bed unit with an integrated fluidized bed heat exchanger designed to burn coal/solid fossil fuel

SUBNA The unit is not part of the subcategories in § 63.7499(a), (b), (c) or (s)

**CO Emission:**

Select one of the following CO emission limit options. Enter the code on the form

**Code Description**

PPM-CO Emission limits for CO in ppm by volume not using a CEMS (valid code only if “Table Applicability” is “SFF10” or if “BM Subcategory” is “”7499(I)”, “7499(E)”, “7499(F)”, “7499(J)” or “7944(H)”

CEM-CO Emission limits for CO in ppm by volume using a CEMS (valid code only if “Table Applicability” is “SFF10” or if “BM Subcategory” is “”7499(I)”, “7499(E), “7499(F)”, “7499(J)”, or “7944(H)”

PPM Emission limits for CO in ppm by volume (valid code only if “Table Applicability” is “HLIQ10” or “LLIQ10”, or “GAS2” or “BM Subcategory” is “”7499(D)”, or “7499(G)”

STM-CO Emission limits for CO in pounds per MMBtu steam output (for steam generating units only).

MWH-CO Emission limits for CO in pounds per MWh power output (for boilers that generate electricity only)

* **Continue only if “CO Emission” is “PPM-CO,” “PPM,” “STM-CO,” or “MWH-CO.”**

**CO-CMS:**

Select one of the following continuous monitoring system (CMS) options. Enter the code on the form.

**Code Description**

COCMS CO CMS is used

NONE CMS is not being used

**CO-Test:**

Select one of the following CO performance test options. Enter the code on the form.

**Code Description**

PT Compliance is demonstrated by conducting a performance test for CO

NPT A performance test is not being used

Process Heater/Furnace Attributes

Form OP-UA5 (Page 1)

Federal Operating Permit Program

Table 1a: 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, Process Heaters

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| Unit ID No. | SOP/GOP Index No. | Unit Type | Maximum Rated Capacity | RACT Date Placed in Service | Functionally Identical Replacement | Fuel | Type(s) |  | Annual Heat Input | NOx Emission Limitation | Opt-In Unit | 23C-Option |
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Process Heater/Furnace Attributes

Form OP-UA5 (Page 2)

Federal Operating Permit Program

Table 1b: Title 30 Texas Administrative Code Chapter 112 (30 TAC Chapter 117)

Subchapter B: Combustion Control at Major Industrial, Commercial, and

Institutional Sources in Ozone Nonattainment Areas, Process Heaters

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
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| Unit ID No. | SOP/GOPIndex No. | Diluent CEMS | 30 TACChapter 116 Limit | NOx Emission Limit Basis | NOx Reduction | Common Stack Combined | Fuel Type Heat Input | NOx Monitoring System |
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Process Heater/Furnace Attributes

Form OP-UA5 (Page 3)

Federal Operating Permit Program

Table 1c: 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, Process Heaters

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
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| Unit ID No. | SOP/GOP Index No. | Fuel Flow Monitoring | CO Emission Limitation | CO Monitoring System | NH3 Emission Limitation | NH3 Monitoring |
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Process Heater/Furnace Attributes

Form OP-UA5 (Page 4)

Federal Operating Permit Program

Table 2: Title 30 Texas Administrative Code Chapter 112 (30 TAC Chapter 112)

Control of Air Pollution from Sulfur Compounds

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
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| Unit ID No. | SOP/GOP Index No. | Effective Stack Height | Emission Point ID No. |
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Process Heater/Furnace Attributes

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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, and Institutional Sources in

Ozone Nonattainment Areas, Furnaces

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
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| Unit ID No. | SOP/GOPIndex No. | Unit Type | Maximum Rated Capacity | NOx Emission Limitation | 23C-Option | NOx Emission Limit Basis | NOx Reduction | NOx Monitoring System |
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Process Heater/Furnace Attributes

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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, and Institutional Sources in

Ozone Nonattainment Areas, Furnaces

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
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| Unit ID No. | SOP/GOP Index No. | Fuel Flow Monitoring | CO Emission Limitation | CO Monitoring System | NH3 Emission Limitation | NH3 Monitoring |
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Process Heater/Furnace Attributes

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Federal Operating Permit Program

Table 4: Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111)

Subchapter A, Division 2: Incineration

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| Unit ID No. | SOP/GOP Index No. | Hazardous Waste | Monitor |
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Process Heater/Furnace Attributes

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Federal Operating Permit Program

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

Subpart EEE: Hazardous Waste Combustors

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| Unit ID No. | SOP/GOPIndex No. | Existing Source | Area Source | Elective Standards | Dioxin/Furan Standard | CO/THC Standard | TOT-Cl Standard |
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Process Heater/Furnace Attributes

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Federal Operating Permit Program

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

Subpart EEE: Hazardous Waste Combustors

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| Unit ID No. | SOP/GOP Index No. | Baghouse | PM Detection | Dioxin-Listed | DRE Previous Test | Feed Zone |
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Process Heater/Furnace Attributes

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Federal Operating Permit Program

Table 6a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)

Subchapter DDDDD: Industrial, Commercial, and Institutional Process Heaters

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| **Unit ID No.** | **SOP/GOP Index No.** | **Commence** | **Table Applicability** | **HCl Emission** | **HCl-CMS** |
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Process Heater/Furnace Attributes

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Federal Operating Permit Program

Table 6b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)

Subchapter DDDDD: Industrial, Commercial, and Institutional Process Heaters

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| Unit ID No. | SOP/GOP Index No. | HCl-CD | HCl-Test | HCl-FA | HCl-FloMon | HCl-pHMon |
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**Process Heater/Furnace Attributes**

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**Federal Operating Permit Program**

**Table 6c: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subchapter DDDDD: Industrial, Commercial, and Institutional Process Heaters**

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| **Unit ID No.** | **SOP/GOP****Index No.** | **Hg Emission** | **Hg-InjRate** | **Hg-CMS** | **Hg-CD** | **Hg-Test** | **Hg-FA** |
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**Process Heater/Furnace Attributes**

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**Federal Operating Permit Program**

**Table 6d: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subchapter DDDDD: Industrial, Commercial, and Institutional Process Heaters**

Texas Commission on Environmental Quality

| **Date** | **Permit No.** | **Regulated Entity No.** |
| --- | --- | --- |
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| **Unit ID No.** | **SOP/GOP****Index No.** | **BM Subcategory** | **PM/TSM Emission** | **TSM-CMS** | **TSM-Test** | **TSM-FA** |
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**Process Heater/Furnace Attributes**

**Form OP-UA5 (Page 14)**

**Federal Operating Permit Program**

**Table 6e: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subchapter DDDDD: Industrial, Commercial, and Institutional Process Heaters**

**Texas Commission on Environmental Quality**

| **Date** | **Permit No.** | **Regulated Entity No.** |
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| **Unit ID No.** | **SOP/GOP****Index No.** | **PM-250** | **PM-CMS** | **PM-CD** | **PM-Test** | **PM-FM** | **PM-PMON** |
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**Process Heater/Furnace Attributes**

**Form OP-UA5 (Page 15)**

**Federal Operating Permit Program**

**Table 6f: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subchapter DDDDD: Industrial, Commercial, and Institutional Process Heaters**

**Texas Commission on Environmental Quality**

| **Date** | **Permit No.** | **Regulated Entity No.** |
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| **Unit ID No.** | **SOP/GOP Index No.** | **Opacity-CD** | **COMS** | **OPT-Test** |
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**Process Heater/Furnace Attributes**

**Form OP-UA5 (Page 16)**

**Federal Operating Permit Program**

**Table 6g: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subchapter DDDDD: Industrial, Commercial, and Institutional Process Heaters**

**Texas Commission on Environmental Quality**

| **Date** | **Permit No.** | **Regulated Entity No.** |
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| **Unit ID No.** | **SOP/GOP Index No.** | **SFF Subcategory** | **CO Emission** | **CO-CMS** | **CO-Test** |
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