

**Form OP-UA51
Dryer/Kiln/Oven Attributes
Texas Commission on Environmental Quality**

General:

This form is used to provide a description and data pertaining to ovens, dryers, and kilns 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 an oven, dryer, or kiln, then it should be left blank and need not be submitted with the application. 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:

- Table 1:** Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart PP: Standards of Performance for Ammonium Sulfate Manufacture
- Table 2:** Title 40 Code of Federal Regulations Part 61 (40 CFR Part 61), Subpart E: National Emission Standard for Mercury
- Table 3:** Title 40 Code of Federal Regulations Part 61 (40 CFR Part 61), Subpart K: National Emission Standards for Radionuclide Emissions From Elemental Phosphorus Plants
- Tables 4a – 4b:** 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, Dryers, Kilns, and Ovens
- Table 5:** Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117), Subchapter E: Multi-Region Combustion Control, Division 2, Cement Kilns
- Table 6:** Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111), Subchapter A: Visible Emissions and Particulate Matter, Division 2, Incineration
- Tables 7a – 7c:** Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart EEE: Hazardous Waste Combustors
- Tables 8a – 8d:** Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart JJJJJ: Brick and Structural Clay Products Manufacturing

The Texas Commission on Environmental Quality (TCEQ) regulated entity number (RNXXXXXXXXXX) 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.

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 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 the TCEQ customers and regulated activities, such a 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 has 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 an 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 1: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart PP: Standards of Performance for Ammonium Sulfate Manufacture

★ **Complete this table only for ammonium sulfate dryers within an ammonium sulfate manufacturing plant in the caprolactam by-product, synthetic, and coke oven by-product sectors of the ammonium sulfate industry.**

Unit ID No.:

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

SOP Index No.:

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

Construction Date:

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

Code	Description
80-	On or before February 4, 1980
80+	After February 4, 1980

▼ **Continue only if “Construction Date” is “80+.”**

Weigh Scales:

Enter “YES” if the plant, where the ammonium sulfate dryer is located, uses weigh scales to directly measure the production rate of ammonium sulfate. Otherwise, enter “NO.”

▼ **Continue only if “Weigh Scales” is “NO.”**

Material Balance:

Select one of the following options for the type of plant at which the ammonium sulfate dryer is located. Enter the code on the form.

Code	Description
SCOB	The ammonium sulfate dryer is located at a synthetic or coke oven by-product ammonium sulfate plant (the ammonium sulfate production rate is determined by material balance)
CAPB	The ammonium sulfate dryer is located at a caprolactam by-product ammonium sulfate plant (the ammonium sulfate production rate is determined by material balance)

Table 2: Title 40 Code of Federal Regulations Part 61 (40 CFR Part 61), Subpart E: National Emission Standard for Mercury

★ **Complete only for dryers of wastewater treatment plant sludge.**

Unit ID No.:

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

SOP Index No.:

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

Emissions Testing Waiver:

Enter "YES" if a waiver of emission testing has been obtained under 40 CFR § 61.13. Otherwise, enter "NO."

Waiver ID No.:

If a waiver has been approved by the EPA Administrator, then enter the corresponding unique identifier (maximum 10 characters) for each unit or process. If the unique identifier is unavailable, then enter the date of the approval letter. 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.

▼ **Continue only if "Emissions Testing Waiver" is "NO."**

Sludge Sampling:

Enter "YES" if sludge sampling is conducted. Otherwise, enter "NO."

Mercury Emissions:

Enter "YES" if mercury emissions exceed 1,600 grams per 24-hour period. Otherwise, enter "NO."

Table 3: Title 40 Code of Federal Regulations Part 61 (40 CFR Part 61), Subpart K: National Emission Standards for Radionuclide Emissions From Elemental Phosphorus Plants

★ **Complete only for calciner or nodulizing kilns located at an elemental phosphorus plant.**

Unit ID No.:

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

SOP Index No.:

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

Alternate Operating Condition:

Enter "YES" if calciner or nodulizing kiln is using an alternate operating condition (AOC), approved by the EPA Administrator. Otherwise, enter "NO."

AOC ID No.:

If an AOC has been approved by the EPA Administrator, then enter the corresponding AOC unique identifier for each unit or process. If the unique identifier is unavailable, then enter the date of the AOC approval letter. 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 "Free-Jet Scrubber System" only if "Alternate Operating Condition" is "NO."

Free-Jet Scrubber System:

Enter "YES" if a Hydro-Sonic® Tandem Nozzle Fixed Throat Free-Jet Scrubber System is in place. Otherwise, enter "NO."

★ Complete "Wet Scrubber" only if "Free-Jet Scrubber System" is "NO."

Wet Scrubber:

Enter "YES" if a wet-scrubber is being used for emissions control. Otherwise, enter "NO."

Control Device ID No.:

If applicable, enter the identification number for the control device to which emissions are routed (maximum 10 characters). This number should be consistent with the control device identification number listed on Form OP-SUM (Individual Unit Summary). Use multiple lines if more than one control device is used. If there is no control device, then leave this column blank.

Table 4a: 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, Dryers, Kilns, and Ovens.

★ Complete Tables 4a - 4b only for units located at a major source of NO_x in the Houston/Galveston/Brazoria or Dallas/Fort Worth Eight-Hour ozone nonattainment areas.

Unit ID No.:

Enter the identification (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 number, please go to the TCEQ website at [www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional_fop_guidance.pdf](http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf).

Unit Type:

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

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

Code	Description
MGDRY	Magnesium chloride fluidized bed dryer
LKILN	Lime kiln
AGKILN	Lightweight aggregate kiln
OTHER1	Kiln, dryer or oven other than listed above

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

Code	Description
LKILN	Lime kiln
BKILN	Brick kiln
CKILN	Ceramic kiln
FGOVN	Gas fired curing oven used for the production of mineral wool-type or textile type fiberglass
OV/HTR	Oven or heater
DRYER	Dryer used in an organic solvent, printing ink, clay, brick, ceramic tile, calcining or vitrifying processes
SDRYER	Spray dryer used in ceramic tile manufacturing processes
OTHER2	Other not listed above such as fiberglass forming oven or natural gas-fired heater used exclusively for comfort heat in an area of occupancy

▼ Do not continue if “Unit Type” is “OTHER1” or “OTHER2”

Maximum Rated Capacity:

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

Code	Description
5-	MRC is 5 MMBtu/hr or less
5-100	MRC is greater than 5 MMBtu/hr but less than 100 MMBtu/hr
100	MRC is 100 MMBtu/hr or greater

▼ Do not continue if “Unit Type” is “BKILN,” “CKILN,” “FGOVN,” “OV/HTR,” “DRYER” or “SDRYER” and “Maximum Rated Capacity” is “5-.”

★ Complete “Fuel Fired” only if “Unit Type” is “OV/HTR,” “DRYER” OR “SDRYER.”

Fuel Fired:

Enter “YES” if the dryer, heater, or oven is fired with natural gas. Otherwise, enter “NO.”

▼ Do not continue if “Unit Type” is “OV/HTR,” “DRYER” or “SDRYER” and “Fuel-Fired” is “NO.”

★ Complete “N-Bound” only if “Unit Type” is “FGOVN.”

N-Bound:

Enter “YES” if the curing oven uses nitrogen-containing or other [bound chemical] additives. Otherwise, enter “NO.”

▼ Do not continue if “N-Bound” is “YES.”

NOx Emission Limitation:

Select the option that describes the NOx emission specification that applies to the unit. Enter the code on the form.

Code	Description
310	Complying with the requirements of 30 TAC § 117.310(a) [relating to Emission Specifications for Attainment Demonstration] <i>(use for units in the Houston/Galveston/Brazoria ozone nonattainment area)</i>
SC	Unit is complying with a Source Cap under Title 30 TAC § 117.423 <i>(use for incinerators in the Dallas/Fort Worth Eight-Hour ozone nonattainment area)</i>
410	Complying with the requirements of 30 TAC § 117.410(a) [relating to Emission Specifications for Eight-Hour Attainment Demonstration] <i>(use for units in the Dallas/Fort Worth Eight-Hour ozone nonattainment area)</i>
ACF	Unit is complying with an annual capacity factor specification under Title 30 TAC §§ 117.310(d)(3) and 117.310(a)(17) or under § 117.410(a)(14)

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

23C-Option:

Select one of the following § 117.423(c)(1) options for monitoring. Enter the code on the form.

Code	Description
23C-A	NOx, CO, O ₂ (or CO ₂) CEMS, and a totalizing fuel flow meter per § 117.423(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 § 117.423(c)(1)(C).

★ **Complete “Kiln Lb/Ton NOx Limit” only if “Unit Type” is “BKILN” or “CKILN” and unit is in Dallas/Fort Worth Eight-Hour ozone nonattainment area.**

Kiln lb/ton NOx Limit:

Enter “YES” if the brick or ceramic kiln uses the lb/ton of product NOx emission limit (instead of 40% reduction). Otherwise, enter “NO.”

NOx Reduction (ICI):

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

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

NOx Monitoring System:

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

Code	Description
CEMS	Continuous emissions monitoring system complying with 30 TAC § 117.8100(a)(1)
CEMS75	Continuous emissions monitoring system complying with 40 CFR Part 75 requirements under 30 TAC § 117.8100(a)(5)
PEMS	Predictive emissions monitoring system
PEMS75	Predictive emissions monitoring system complying with 40 CFR Part 75
MERT	Maximum emission rate testing

Table 4b: 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; Dryers, Kilns, and Ovens

Unit ID No.:

Enter the identification (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 number, please go to the TCEQ website at www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf.

NOx 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

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 options to be in compliance with the carbon monoxide (CO) emission specifications of 30 TAC Chapter 117. Select one of the following options. Enter the code on the form.

Code	Description
310	Complying with 30 TAC § 117.310(c)(1) [relating to Emission Specifications for Attainment Demonstration] <i>(use for units in the Houston/Galveston/Brazoria ozone nonattainment area)</i>
410	Complying with 30 TAC § 117.410(c)(1) [relating to Emission Specifications for Eight-Hour Attainment Demonstration] <i>(use for units in the Dallas/Fort Worth Eight-Hour ozone nonattainment area)</i>
ACSS	Complying with an Alternative Case Specific Specification under 30 TAC §§ 117.325 or 117.425

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)
OTHER	Other than a CEMS or PEMS

▼ Continue only if “NOx Reduction (ICI)” is “POST1.”

NH3 Emission Limitation:

Title 30 TAC Chapter 117 provides two options to be in compliance with the ammonia (NH₃) emission specifications of 30 TAC Chapter 117. Select one of the following options. Enter the code on the form.

Code	Description
310	Complying with 30 TAC § 117.310(c)(2) [relating to Emission Specifications for Attainment Demonstration] <i>(use for units in the Houston/Galveston/Brazoria ozone nonattainment area)</i>
410	Complying with 30 TAC § 117.410(c)(2) [relating to Emission Specifications for Eight-Hour Attainment Demonstration] <i>(use for units in the Dallas/Fort Worth Eight-Hour ozone nonattainment area)</i>
ACSS	Complying with an Alternative Case Specific Specification under 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 5: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117), Subchapter E, Division 2: Cement Kilns

★ **Complete this table only for portland cement kilns located in Bexar, Comal, Ellis, Hays, or McClennan Counties.**

Unit ID No.:

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

SOP Index No.:

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

Date Placed in Service:

Select one of the following options to indicate the date that the portland cement kiln was placed in service. Enter the code on the form.

Code	Description
99-	Before December 31, 1999
99-06	On or after December 31, 1999, but before January 1, 2006
06+	On or after January 1, 2006

★ **Complete “Kilns at Account Before January 1, 2001” only if the site is located in Ellis County.**

Kilns at Account Before January 1, 2001:

Enter “YES” if there were any portland cement kilns in operation at the account before January 1, 2001. Otherwise, enter “NO.”

Complying With Source Cap:

Enter "YES" if the kiln is located at an account that is complying with the source cap specified in 30 TAC § 117.3120. Otherwise, enter "NO."

- ▼ **Do not continue if the site is located in Bexar, Comal, Hays or McLennan County, "Date Placed in Service" is "99-06" or "06+," and "Complying with Source Cap" is "NO."**
- ▼ **Do not continue if the site is located in Ellis County, "Kilns at Account Before January 1, 2001" is "NO," and "Complying with Source Cap" is "NO."**
- ★ **Complete "Kiln Type" if "Date Placed in Service" is "99-" and "Complying with Source Cap" is "NO."**

Kiln Type:

Select one of the following options for the type of portland cement kiln. Enter the code on the form.

Code	Description
LWK	Long wet kiln
LDK	Long dry kiln
PREHTRK	Preheater kiln
PRECALK	Preheater-precalciner kiln or precalciner kiln

- ★ **Complete "NOx Control" if site is located in Bexar, Comal, Hays or McLennan County and "Date Placed in Service" is "99-" or if site is located in Ellis County, "Date Placed in Service" is "99-" and "Complying with Source Cap" is "NO."**

NOx Control:

Select one of the following options to indicate the type of control used for NOx. Enter the code on the form.

For kilns of type "LWK" or "LDK":

Code	Description
3110C	The kiln meets the specifications in § 117.3110(c) and the owner or operator is choosing to comply with these controls in lieu of the emission limits in § 117.3110(a).
WA	A weighted average for multiple cement kilns at the same account is used to comply with the NOx emission specifications as allowed under § 117.3110(b).
3110A	The kiln meets emission limits in § 117.3110(a).

For kilns of type "PREHTRK" or "PRECALK":

Code	Description
3110D	Either a low-NOx burner or a low-NOx precalciner is used to control NOx under § 117.3110(d).
WA	A weighted average for multiple cement kilns at the same account is used to comply with the NOx emission specifications as allowed under § 117.3110(b).
3110A	The kiln meets emission limits in § 117.3110(a).

NOx Monitoring Type:

Select one of the following options to indicate the type of monitoring system used to monitor the exhaust NOx emissions from the kiln. Enter the code on the form.

Code	Description
CEMS	Continuous emissions monitoring system
PEMS	Predictive emissions monitoring system

- ▼ **Do not continue if the site is located in Ellis County, "Kilns at Account Before January 1, 2001" is "NO," and "Complying with Source Cap" is "YES."**

NH₃ Injection:

Enter "YES" if ammonia or urea is injected into the exhaust stream for NO_x control. Otherwise, enter "NO."

★ **Complete "Alternative Case Specific Specifications for NH₃" only if "NH₃ Injection" is "YES."**

Alternative Case Specific Specifications for NH₃:

Enter "YES" if the applicant is complying with the Alternative Case Specific Specifications under § 117.3125. Otherwise, enter "NO."

Table 6: 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]). For additional information relating to SOP index numbers please go to the TCEQ website at [www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional_fop_guidance.pdf](http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf).

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 7a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart EEE: Hazardous Waste Combustors

★ **Complete this table for solid or liquid-fueled boilers 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/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]). For additional information relating to SOP index numbers please go to the TCEQ website at [www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional_fop_guidance.pdf](http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf).

Type Kiln:

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

Code	Description
CEMENT	Cement kiln
AGG	Lightweight aggregate kiln

Existing Source:

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

Inlet Temp:

Enter "YES" if the gas temperature at the inlet of the initial PM control device is 400 degrees F or lower. Otherwise, enter "NO."

★ Complete "Inline Raw Dual Stks" only if "Type Kiln" is "CEMENT."

Inline Raw Dual Stks.:

Enter "YES" if the kiln has an in-line raw mill with dual stacks. Otherwise, enter "NO."

Hg ALT:

Enter "YES" if the kiln is complying with the alternate Hg standards in § 63.1206(b). Otherwise, enter "NO."

★ Complete "Hg MTEC" and "Hg Feedrate" only if "Hg Alt" is "NO."

Hg MTEC:

Enter "YES" if the kiln is complying with the maximum theoretical emission concentration. Otherwise, enter "NO."

Hg Feedrate:

Enter "YES" if extrapolation of feedrate levels is used for Hg. Otherwise, enter "NO."

Table 7b: 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/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]). For additional information relating to SOP index numbers please go to the TCEQ website at [www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional_fop_guidance.pdf](http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf).

Semivol ALT:

Enter "YES" if the kiln is complying with the alternate semi-volatile metals standards in § 63.1206(b). Otherwise, enter "NO."

Lowvol ALT:

Enter "YES" if the kiln is complying with the alternate low volatile metals standards in § 63.1206(b). Otherwise, enter "NO."

★ Complete "Met Feedrate" if "Semivol Alt" and/or "Lowvol Alt" are "NO."

Met Feedrate:

Enter "YES" if extrapolation of feedrate levels is used for semi-volatile and/or low volatile metals. Otherwise, enter "NO."

CO/THC Standard:

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

For cement kilns:

Code	Description
1206-1	Complying with § 63.1206(b)(13)(i)(A)(1) or § 63.1206(b)(13)(i)(B)(1) [hydrocarbons in the main stack]

1206-2	Complying with § 63.1206(b)(13)(i)(A)(2) or § 63.1206(b)(13)(i)(B)(2)(i) [hydrocarbons both in the by-pass duct and at a preheater tower combustion gas monitoring location]
1206-3	Complying with § 63.1206(b)(13)(i)(A)(3) or § 63.1206(b)(13)(i)(B)(3)(i) [only firing location of hazardous waste upstream of the point where combustion gases are diverted into the bypass duct is at the kiln end where products are normally discharged]
CO-5MID	Complying with the CO standard in § 63.1220(a)(5)(i)(A) or § 63.1220(b)(5)(i)(A)(1) [for kilns equipped with a by-pass duct or midkiln gas sampling system]
THC-5MID	Complying with the THC standard in § 63.1220(a)(5)(i)(B) or § 63.1220(b)(5)(i)(A)(2) [for kilns equipped with a by-pass duct or midkiln gas sampling system]

For cement kilns:

Code	Description
CO-5	Complying with the CO standard in § 63.1220(a)(5)(ii)(B) or § 63.1220(b)(5)(ii)(B)(1)
THC-5	Complying with the THC standard in § 63.1220(a)(5)(ii)(A) or § 63.1220(b)(5)(ii)(A)

For lightweight aggregate kilns:

Code	Description
CO-5A	Complying with the CO standard in § 63.1221(a)(5)(i) or (b)(5)(i)
THC-5A	Complying with the THC standard in § 63.1221(a)(5)(ii) or (b)(5)(ii)

★ Complete “No Previous Kiln” only if “Type Kiln” is “Cement” and “Existing Source” is “NO.”

No Previous Kiln:

Enter “YES” if the kiln was constructed after April 19, 1996, at a site where a cement kiln did not previously exist. Otherwise, enter “NO.”

Chlorine ALT:

Enter “YES” if the kiln is complying with the alternate hydrogen chloride/chlorine gas standards in § 63.1206(b). Otherwise, enter “NO.”

Baghouse:

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

Table 7c: 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/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]). For additional information relating to SOP index numbers, please go to the TCEQ website at [www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional_fop_guidance.pdf](http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/additional_fop_guidance.pdf).

★ 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 the 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."

★ Complete "Inline Raw Mill" only if "Type Kiln" is "CEMENT."

Inline Raw Mill:

Enter "YES" if the kiln has an in-line raw mill. Otherwise, enter "NO."

★ Complete "Preheater Dual Stks" only if "Type Kiln" is "CEMENT."

Preheater Dual Stacks:

Enter "YES" if the kiln is a preheater/precalciner kiln with dual stacks. Otherwise, enter "NO."

Table 8a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart JJJJJ: Brick and Structural Clay Products Manufacturing

★ Complete this table for periodic or tunnel kilns that are located at a major source of HAP, and are not subject to 40 CFR Part 63, Subparts KKKKK or SSSSS

Unit ID No.:

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

SOP Index No.:

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

Kiln Type:

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

Code	Description
PERI	Periodic kiln
TUN	Tunnel kiln

▼ Do not continue if "Kiln Type" is "PERI."

HCl Eq Control Device Type:

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

Code	Description
DLA	Tunnel Kiln equipped with a Dry Limestone Absorber
DRY	Tunnel Kiln equipped with a Dry Lime Injection Fabric Filter, Dry Line Scrubber/Fabric Filter
WS	Tunnel Kiln equipped with a Wet Scrubber
T2ALT	APCD not addressed in Table 2 per § 63.8445(h)
NONE	No add-on control device

HCl Eq Control Device ID No.:

If applicable, enter the identification number for the control device to which emissions are routed (maximum 10 characters). This number should be consistent with the control device identification number listed on Form OP-SUM. If there is no control device, then leave this column blank.

- ★ Complete “HCl Eq Alternative Standard” and “HCl Eq Monitoring Type” only if “HCl Eq Control Device Type” is “DLA,” “DRY” or “WS.”

HCl Eq Alternate Standard:

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

Code	Description
ALT	Alternate standard established for the kiln
NOALT	No alternate standard established for the kiln

HCl Eq Monitoring Type:

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

Code	Description
CMS	Continuous Monitoring System
ALTM	Approved alternative monitoring

Table 8b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart JJJJJ: Brick and Structural Clay Products Manufacturing

Unit ID No.:

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

SOP Index No.:

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

- ★ If “HCl Eq Control Device Type” is “WS,” skip to Table 8c.

PM/Opacity Control Device Type:

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

Code	Description
DLA	Dry Limestone Absorber used to maintain no visible emissions
DRY	Dry Lime Injection Fabric Filter, Dry Line Scrubber/Fabric Filter used to maintain no visible emission
NONE	No add-on control device

PM/Opacity Control Device ID No.:

If applicable, enter the identification number for the control device to which emissions are routed (maximum 10 characters). This number should be consistent with the control device identification number listed on Form OP-SUM. If there is no control device, then leave this column blank

- ★ Complete “Visual Emissions Alternate Standard” and “PM/Opacity Monitoring Type” only if “PM/Opacity Control Device Type” is “DLA,” or “DRY”.

Visual Emissions Alternate Standard:

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

Code	Description
VEALT	Visible Emissions Alternate standard established for the kiln
NOVEALT	No Visible Emissions Alternate standard established for the kiln

PM/Opacity Monitoring Type:

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

Code	Description
CMS	Continuous Monitoring System
ALTM	Approved alternative monitoring

Table 8c: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart JJJJJ: Brick and Structural Clay Products Manufacturing

Unit ID No.:

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

SOP Index No.:

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

Design Capacity:

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

Code	Description
10-	Tunnel kiln less than 10 tons/hr (9.07 Mg/hr) is a small kiln
10+	Tunnel kiln greater than 10 tons/hr (9.07 Mg/hr) is a large kiln

Construction Date:

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

Code	Description
EXIST	Tunnel kiln commenced on or before December 18, 2014 is an existing kiln
NEW-REC	Tunnel kiln commenced after December 18, 2014 is a new or reconstructed kiln

PM Pollutant Emission Limit Units:

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

Code	Description
PMKM	Particulate Matter pollutant measured in kg/Mg (lb/ton) of fired product
PMMD	Particulate Matter pollutant measured in mg/dscm (gr/dscf) at 17% O ₂ of fired product
TNHGHM	Kiln is using non-Hg HAP Metal in lieu of particulate matter

PM Control Device Type:

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

Code	Description
DLA	Dry Limestone Absorber
DRY	Dry Lime Injection Fabric Filter, Dry Line Scrubber/Fabric Filter
WS	Wet Scrubber
T2ALT	APCD not addressed in Table 2 per § 63.8445(h)
NONE	No add-on control device

PM Control Device ID No.:

If applicable, enter the identification number for the control device to which emissions are routed (maximum 10 characters). This number should be consistent with the control device identification number listed on Form OP-SUM. If there is no control device, then leave this column blank

- ★ Complete “PM Alternative Standard” only if “PM Control Device Type” is “DLA,” “DRY,” or “WS.”

PM Alternate Standard:

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

Code	Description
ALT	Alternate standard established for the kiln
NOALT	No alternate standard established for the kiln

Table 8d: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subpart JJJJJ: Brick and Structural Clay Products Manufacturing

Unit ID No.:

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

SOP Index No.:

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

- ★ Complete “PM Monitoring Type” only if “PM Control Device Type” is “DLA,” “DRY,” or “WS.”

PM Monitoring Type:

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

Code	Description
CMS	Continuous Monitoring System
ALTM	Approved alternative monitoring

Hg Pollutant Emission Limit Units:

Select one of the following options for the HG pollutant emission limit units. Enter the code on the form.

Code	Description
HGKM	Mercury pollutant measured in kg/Mg (lb/ton) of fired product
HGMD	Mercury pollutant measured in µg/dscm at 17% O ₂ of fired product
HGKH	Mercury pollutant measured in kg/hr (lb/hr) of fired product

Hg Control Device Type:

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

Code	Description
DLA	Dry Limestone Absorber
ACI	Activated carbon injection
T2ALT	APCD not addressed in Table 2 per § 63.8445(h)
NONE	No add-on control device

Hg Control Device ID No.:

If applicable, enter the identification number for the control device to which emissions are routed (maximum 10 characters). This number should be consistent with the control device identification number listed on Form OP-SUM. If there is no control device, then leave this column blank.

- ★ Complete “Hg Alternative Standard” and “Hg Monitoring Type” only if “Hg Control Device Type” is “DLA” or “ACI.”

Hg Alternate Standard:

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

Code	Description
ALT	Alternate standard established for the kiln
NOALT	No alternate standard established for the kiln

Hg Monitoring Type:

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

Code	Description
CMS	Continuous Monitoring System
ALTM	Approved alternative monitoring

Dryer/Kiln/Oven Attributes

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Federal Operating Permit Program

Table 3: Title 40 Code of Federal Regulations Part 61 (40 CFR Part 61)

**Subpart K: National Emission Standard for Radionuclide Emissions From Elemental Phosphorus Plants
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.

Unit ID No.	SOP Index No.	Alternate Operating Condition	AOC ID No.	Free-Jet Scrubber System	Wet Scrubber	Control Device ID No.

Dryer/Kiln/Oven Attributes

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Federal Operating Permit Program

Table 4a: 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, Dryers, Kilns and Ovens
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.

Unit ID No.	SOP Index No.	Unit Type	Maximum Rated Capacity	Fuel Fired	N-Bound	NOx Emission Limitation	23C-Option	Kiln lb/ton NOx Limit	NOx Reduction (ICI)	NOx Monitoring System

Dryer/Kiln/Oven Attributes

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Table 4b: 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, Dryers, Kilns, and Ovens

Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.

Unit ID No.	SOP Index No.	NOx Averaging Method	Fuel Flow Monitoring	CO Emission Limitation	CO Monitoring System	NH3 Emission Limitation	NH3 Monitoring

Dryer/Kiln/Oven Attributes
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Federal Operating Permit Program
Table 5: Title 30 Texas Administrative Code Chapter 117 (30 TAC Chapter 117)
Subchapter E, Division 2: Cement Kilns
Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.

Unit ID No.	SOP Index No.	Date Placed in Service	Kilns at Account before January 1, 2001	Complying with Source Cap	Kiln Type	NOx Control	NOx Monitoring Type	NH ₃ Injection	Alternative Case Specific Specifications for NH ₃

Dryer/Kiln/Oven Attributes
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Federal Operating Permit Program
Table 6: 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.

Unit ID No.	SOP Index No.	Hazardous Waste	Monitor

