Mass Emissions Cap and Trade (MECT) Annual Compliance Reports Supporting Documentation

Overview

The purpose of this document is to provide guidance on the supporting documents needed to verify that the appropriate monitoring and testing protocols, per 30 Texas Administrative Code (TAC) Chapter 117, were used to quantify annual NO_x emissions. This document is not a compliance substitute for the rule requirements in Chapter 117 and only reflects the documentation used by the Emission Banking and Trading Team to process annual compliance reports. The official version of the Chapter 117 rules is available on the Secretary of State website.

Notes:

- Emissions for each MECT facility must be quantified using appropriate Chapter 117 monitoring and testing methods. If the required Chapter 117 data is missing or unavailable, you must provide an alternate method, in accordance with 30 TAC §101.354(b) as well as a detailed description of the reason the alternate data is being used.
- Data substitution provided for CEMS or PEMS downtime in accordance Chapter 117 procedures (e.g., §117.340(c)(3)) should not be listed as §101.354(b).
- If alternate data is used due to noncompliance with Chapter 117 protocols, an additional 10% quantification penalty will be applied in accordance with 30 TAC §101.354(b)(2) for the period of noncompliance.

Instructions

1. Select the source type for your site from the options below.
    - Major Industrial/Commercial/Institutional (ICI) Source
    - Utility Electric Generation Source
    - Minor ICI Source
2. Look for the appropriate Chapter 117 **level of activity** and **emission factor** citations for each MECT facility in the provided tables.
3. Once you've found the appropriate citations, review the **Supporting Documentation** list.
4. Attach the applicable documentation to your annual compliance report in the State of Texas Environmental Electronic Reporting System (STEERS). Complete and detailed supporting documentation will facilitate the review of your report.

Major Sources

Level of Activity Supporting Documents

Chapter 117 Citation	Description	Supporting Documentation
§117.340(a)(1)(B)	Totalizing fuel flow meter for each unit **not** equipped with CEMS or PEMS	• Annual fuel usage for each unit, in scf or gallons • If the unit was re-tested during the control period, provide the fuel usage values for before and after the test was conducted, since the new stack test value can only be used to calculate emissions from the date of the test forward • Type(s) of fuel burned • Higher (gross) heating value of the fuel(s) in Btu/scf (Btu/gallons, if liquid fuel) and the basis for the gross heating value (e.g., fuel test data, supplier data, AP-42, etc.) • For engines, heat rate in Btu/hp-hr (using data from the stack test, manufacturer's specification sheet, or other source) • For pulping liquor recovery furnaces, annual production rate if emission factors are reported in pound per air-dried ton of pulp
§117.340(a)(1)(B)	Totalizing fuel flow meter for each unit with CEMS or PEMS	• Annual heat input or production rate (for kilns or pulping liquor recovery furnaces) for each unit
§117.340(a)(2)(A)	Stack exhaust flow monitoring for a unit with a CEMS	• Stack exhaust flow for each unit (annual summaries are acceptable) • Note: §117.340(c)(1)(H) requires stack exhaust flow monitoring for FCCUs (fluid catalytic cracking units, including carbon monoxide (CO) boilers, CO furnaces, and catalyst regenerator vents)

Chapter 117 Citation	Description	Supporting Documentation
§117.340(a)(2)(B)	Totalizing fuel flow meter for multiple units that vent to a common stack with a CEMS	• Annual heat input or production rate (for kilns or pulping liquor recovery furnaces) for each unit
§117.340(a)(2)(C)	Monthly fuel use records for each diesel engine operating with a run time meter	• Annual diesel usage for each unit, in gallons • If the unit was re-tested during the control period, provide the diesel usage values for before and after the test was conducted, since the new stack test value can only be used to calculate emissions from the date of the test forward • Higher (gross) heating value of the diesel in Btu/gal and the basis for the gross heating value (e.g., fuel test data, supplier data, AP-42, etc.) • Heat rate in Btu/hp-hr (using data from the stack test, manufacturer's specification sheet, or other source)
§117.340(a)(2)(D)	Continuous monitoring of horsepower and hours of operation for each stationary reciprocating internal combustion engine or stationary gas turbine	• Total hp-hr for the control period determined by summing the total hp-hr for each day (calculated by multiplying the average hp for that day times the total hours of operation for that day - electronic version preferred) • If the unit was re-tested during the control period, provide the hp-hr values for before and after the test was conducted, since the new stack test value can only be used to calculate emissions from the date of the test forward

Emission Factor Supporting Documents

Chapter 117 Citation	Description	Supporting Documentation
§117.340(c) and (f)	NO_X CEMS	• Supporting Documentation for CEMS and PEMS form signed by the AAR
§117.340(c) and (g)	NO_X PEMS	• Supporting Documentation for CEMS and PEMS form signed by the AAR
§117.340(o)	Stack test	• NO_X emission rate in units of the applicable emission limit (§117.8010(2)(A)) • Copy (electronic version preferred) of the full stack test report if not sent with a report submitted for a previous control period (if summary pages were provided previously, the complete report must be provided) • If a unit was re-tested during the control period, also provide a copy (electronic version preferred) of the full stack test report for the re-test, since the new stack test value can only be used to calculate emissions from the date of the test forward

Note: Section 117.340(c)(1) requires NO_X CEMS or PEMS for:

- stationary gas turbines with a MW rating ≥ 30 MW operated ≥ 850 hours per year;
- units using a chemical reagent to reduce NO_X;
- lime kilns and lightweight aggregate kilns;
- units with a rated heat input ≥ 100 MMBtu/hr; and
- fluid catalytic cracking units (including CO boilers, CO furnaces, and catalyst regenerator vents).

Utility Electric Generating Sources

Level of Activity Supporting Documents

Chapter 117 Citation	Description	Supporting Documentation
§117.1240(i)(2)	Totalizing fuel flow meter or assume fuel consumption at maximum design fuel flow rates during hours of the unit's operation	• Annual fuel usage for each unit, in scf or gallons • Type(s) of fuel burned • Higher (gross) heating value of the fuel(s) in Btu/scf and the basis for the gross heating value (e.g., fuel test data, supplier data, AP-42, etc.) • Maximum design fuel flow rates (firing rate) • Annual hours of operation for each unit without a totalizing fuel flow meter

Emission Factor Supporting Documents

Chapter 117 Citation	Description	Supporting Documentation
§117.1240(a)	NO_x CEMS or PEMS	• Supporting Documentation for CEMS and PEMS form signed by the AAR
§117.1240(e)(1)	Operating parameter monitoring for an acid rain peaking unit in accordance with 40 CFR Part 75, Appendix E	• Operating parameter measurements • Emission rate in lb/MMBtu
§117.1240(f)(2)	Industrial boiler monitoring requirements in §117.340 for an auxiliary steam boiler	• Supporting Documentation for CEMS and PEMS form signed by the AAR • If no CEMS is required, NO_x emission rate in lb/MMBtu determined during performance testing required in §117.340(o). Include summary of the performance test to support the reported NO_x emission rate

Minor Sources

Level of Activity Supporting Documents

Chapter 117 Citation	Description	Supporting Documentation
§117.2035(a)(1)	Totalizing fuel flow meter for each unit **not** equipped with CEMS or PEMS	• Annual fuel usage for each unit, in scf or gallons • If the unit was re-tested during the control period, provide the fuel usage values for before and after the test was conducted, since the new stack test value can only be used to calculate emissions from the date of the test forward • Type(s) of fuel burned • Higher (gross) heating value of the fuel(s) in Btu/scf (Btu/gallons, if liquid fuel) and the basis for the gross heating value (e.g., fuel test data, supplier data, AP-42, etc.) • For each engine, heat rate in Btu/hp-hr (using data from the stack test, manufacturer's specification sheet, or other source)
§117.2035(a)(1)	Totalizing fuel flow meter for each unit with CEMS or PEMS	• Annual heat input or production rate for each unit
§117.2035(a)(2)(A)	Stack exhaust flow monitoring for a unit with a CEMS	• Stack exhaust flow for each unit (annual summaries are acceptable)
§117.2035(a)(2)(B)	Totalizing fuel flow meter for multiple units that vent to a common stack with a CEMS	• Annual heat input for each unit

Chapter 117 Citation	Description	Supporting Documentation
§117.2035(a)(2)(C)	Monthly fuel use records for each diesel engine operating with a run time meter	• Annual diesel usage for each unit, in gallons • If the unit was re-tested during the control period, provide the diesel usage values for before and after the test was conducted, since the new stack test value can only be used to calculate emissions from the date of the test forward • Higher (gross) heating value of the diesel in Btu/gal and the basis for the gross heating value (e.g., fuel test data, supplier data, AP-42, etc.) • Heat rate in Btu/hp-hr (using data from the stack test, manufacturer's specification sheet, or other source)
§117.2035(a)(2)(D)	Single totalizing fuel flow meter for multiple units of the same equipment category if a stack test is performed for each unit and the test results from the unit with the highest emission rate are used for all the units	• Annual fuel in scf or gallons • If the unit was re-tested during the control period, provide the fuel usage values for before and after the test was conducted, since the new stack test value can only be used to calculate emissions from the date of the test forward • Type(s) of fuel burned • Higher (gross) heating value of the fuel(s) in Btu/scf (Btu/gallons, if liquid fuel) and the basis for the gross heating value (e.g., fuel test data, supplier data, AP-42, etc.) • For engines, heat rate in Btu/hp-hr (using data from the stack test, manufacturer's specification sheet, or other source) • List of each unit (FIN and EPN) monitored with the same meter

Chapter 117 Citation	Description	Supporting Documentation
§117.2035(a)(2)(G)	Continuous monitoring of horsepower and hours of operation for each stationary reciprocating internal combustion engine or stationary gas turbine	• Total hp-hr for the control period determined by summing the total hp-hr for each day (calculated by multiplying the average hp for that day times the total hours of operation for that day—electronic version preferred) • If the unit was re-tested during the control period, provide the hp-hr values for before and after the test was conducted, since the new stack test value can only be used to calculate emissions from the date of the test forward

Emission Factor Supporting Documents

Chapter 117 Citation	Description	Supporting Documentation
§117.2035(c)	NO_x CEMS or PEMS	• Supporting Documentation for CEMS and PEMS form signed by the AAR
§117.2035(e)	Stack test	• NO_x emission rate in units of the applicable emission limit • Copy (electronic version preferred) of the full stack test report if not sent with a report submitted for a previous control period (if summary pages were provided previously, the complete report must be provided) • If a unit was re-tested during the control period, also provide a copy (electronic version preferred) of the full stack test report for the re-test, since the new stack test value can only be used to calculate emissions from the date of the test forward

Note: The use of NO_x CEMS or PEMS is optional for minor sources.