

2022 NOV 14 PM 2:38

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 2 AIR QUALITY (STATEWIDE)
PART 101 CARBON DIOXIDE EMISSION STANDARDS FOR COAL-FIRED ELECTRIC GENERATING FACILITIES

20.2.101.1 ISSUING AGENCY: Environmental Improvement Board.
[20.2.101.1 NMAC – N, 01/01/2023]

20.2.101.2 SCOPE: All geographic areas within the jurisdiction of the Environmental Improvement Board.
[20.2.101.2 NMAC – N, 01/01/2023]

20.2.101.3 STATUTORY AUTHORITY: Environmental Improvement Act, Section 74-1-1 to 74-1-16 NMSA 1978, including specifically Paragraph (4) of Subsection A of Section 74-1-8 NMSA 1978, and Air Quality Control Act, Sections 74-2-1 to 74-2-22 NMSA 1978, including specifically Subparagraph (b) of Paragraph (1) of Subsection B of Section 74-2-5 NMSA 1978.
[20.2.101.3 NMAC - N, 01/01/2023]

20.2.101.4 DURATION: Permanent.
[20.2.101.4 NMAC - N, 01/01/2023]

20.2.101.5 EFFECTIVE DATE: January 1, 2023, except where a later date is cited at the end of a section.
[20.2.101.5 NMAC - N, 01/01/2023]

20.2.101.6 OBJECTIVE: The objective of this Part is to establish a carbon dioxide (CO₂) emission standard for coal-fired electric generating facilities with an original installed capacity exceeding three hundred megawatts.
[20.2.101.6 NMAC - N, 01/01/2023]

20.2.101.7 DEFINITIONS: In addition to the terms defined in 20.2.2.7 NMAC (Definitions), as used in this Part, the following terms apply:

- A. “Affected Electric Generating Facility or Affected EGF”** means a new or existing electric generating facility with an original installed capacity exceeding 300 megawatts and that uses coal as a fuel source.
- B. “Continuous emission monitoring system or CEMS”** means the equipment used to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated data acquisition and handling system), a permanent record of CO₂ emissions or stack gas volumetric flow rate.
- C. “Department”** means the New Mexico environment department.
- D. “Electric generating facility (EGF)”** means a facility that generates electricity and includes all appurtenances and pollution control devices, and including, but not limited to all processes and equipment used to separate, compress, and transport CO₂ or other pollutants to offsite locations. A facility may include one or more electric generating units (EGU) at the same location.
- E. “Megawatt-hour (MWh)”** means the net generation from the affected EGU as determined by 40 CFR Part 60.5540.
- F. “Operating day”** means a calendar day during which any fuel is combusted in the affected EGU at any time.
- G. “Operator”** means the person or persons responsible for the overall operation of an affected EGF.
- H. “Owner”** means the person or persons who own all or part of an affected EGF.
- I. “Rolling average”** means the weighted average of all data, meeting quality assurance and quality control requirements normalized pursuant to this Part, collected during the applicable averaging period. A 365-operating-day rolling average is calculated by adding the hourly mass emissions over the previous 365 operating days and dividing that sum by the hourly generation (MWh-net) during the same period. A 30-operating-day rolling average is calculated by adding the hourly mass emissions over the previous 30 operating days and dividing that sum by the hourly generation (MWh-net) during the same period.
[20.2.101.7 NMAC - N, 01/01/2023]

20.2.101.8 SEVERABILITY: If any provision of this Part, or the application of this provision to any person or circumstance is held invalid, the remainder of this Part, or the application of this provision to any person or circumstance other than those as to which it is held invalid, shall not be affected thereby.

2022 NOV 14 PM 2:38

[20.2.101.8 NMAC - N, 01/01/2023]

20.2.101.9 CONSTRUCTION: This Part shall be liberally construed to carry out its purpose.

[20.2.101.9 NMAC - N, 01/01/2023]

20.2.101.10 SAVINGS CLAUSE: Repeal or supersession of prior versions of this Part shall not affect administrative or judicial action initiated under those prior versions.

[20.2.101.10 NMAC - N, 01/01/2023]

20.2.101.11 COMPLIANCE WITH OTHER REGULATIONS: Compliance with this Part does not relieve a person from the responsibility to comply with other applicable federal, state, or local laws, rules, or regulations, including more stringent controls.

[20.2.101.11 NMAC - N, 01/01/2023]

20.2.101.12 DOCUMENTS: Documents incorporated and cited in this Part may be viewed at the New Mexico environment department air quality bureau.

[20.2.101.12 NMAC - N, 01/01/2023]

[The Air Quality Bureau is located at 525 Camino de los Marquez, Suite 1, Santa Fe, New Mexico 87505.]

20.2.101.13-20.2.101.110 [RESERVED]

20.2.101.111 APPLICABILITY: This Part shall apply to new and existing affected electric generating facilities.

[20.2.101.111 NMAC - N, 01/01/2023]

20.2.101.112 EMISSION STANDARD: After January 1, 2023, the owner or operator of an affected EGF shall limit CO₂ emissions from the EGF to no more than 1,100 pounds per megawatt-hour on a 365-operating-day rolling average basis. The calculation shall be performed within 15 days of the end of each calendar month. The calculation of pounds of CO₂ emitted must include all CO₂ emitted during the compliance period, including but not limited to emissions during startup, shutdown, maintenance, and malfunction. The calculation of megawatt-hours generated during the compliance period must include all net megawatt-hours generated by the affected EGF.

[20.2.101.112 NMAC - N, 01/01/2023]

20.2.101.113 MONITORING REQUIREMENTS:

A. Owners or operators of an affected EGF shall prepare a monitoring plan to quantify the hourly CO₂ mass emission rate in tons per hour (tph) in accordance with the applicable provisions of this Section and 40 CFR Part 75.53(g). The monitoring plan shall be submitted to the Department and in place prior to reporting emission data and the results of the monitoring system certification test under Subsection A of 20.2.101.113 NMAC. The monitoring plan shall be updated as appropriate.

B. Owners or operators shall determine the hourly CO₂ mass emissions in pounds or tons from each affected electric generating unit (EGU) according to paragraphs (1) through (5) of Subsection B of 20.2.101.113 NMAC.

(1) Owners or operators shall install, certify, operate, maintain, and calibrate a CO₂ continuous emission monitoring system (CEMS) to directly measure and record the hourly average CO₂ concentration in the affected EGU exhaust gas emitted to the atmosphere, and a flow monitoring system to measure hourly average stack gas flow rates, in accordance with 40 CFR Part 75.10(a)(3)(i). As an alternative to direct measurement of the CO₂ concentration, provided that the affected EGU does not employ carbon separation (e.g., carbon capture and storage), owners or operators may use data from a certified oxygen (O₂) monitor to calculate the hourly average CO₂ concentration in accordance with 40 CFR Part 75.10(a)(3)(iii). If the CO₂ concentration is measured on a dry basis, owners or operators shall also install, certify, operate, maintain, and calibrate a continuous moisture monitoring system, in accordance with 40 CFR Part 75.11(b). Alternatively, owners or operators may either use an appropriate fuel-specific default moisture value from 40 CFR Part 75.11(b) or submit a petition to the Department for a site-specific default moisture value.

(2) For each CEMS used to comply with this Part, owners or operators shall meet the applicable certification and quality assurance procedures in 40 CFR Part 75.20 and Appendices A and B of 40 CFR Part 75.

(3) Owners or operators shall use only unadjusted exhaust gas volumetric flow rates to

2022 NOV 14 PM 2:38

determine the hourly CO₂ mass emission rate from each affected EGU. Owners or operators shall not apply the bias adjustment factors described in Section 7.6.5 of Appendix A to 40 CFR Part 75 to the exhaust gas flow rate data.

(4) Owners or operators shall select an appropriate reference method to set up the flow monitor and perform the ongoing Relative Accuracy Test Audit (RATA), in accordance with 40 CFR Part 75. If owners or operators use a Type-S pitot tube or a pitot tube assembly for the flow RATA, owners or operators shall calibrate the pitot tube or pitot tube assembly. Owners or operators may not use the 0.84 default Type-S pitot tube coefficient specified in Method 2.

(5) Owners or operators shall calculate the hourly CO₂ mass emissions (in tons) as described in Subparagraphs (a) through (c) of Paragraph (5) of Subsection B of 20.2.101.113 NMAC. Owners and operators shall only perform this calculation for valid operating hours, as defined in 40 CFR Part 60.5540(a)(1).

(a) Begin with the hourly CO₂ mass emission rate (tons/hour), obtained either from Equation F-11 of Appendix F of 40 CFR Part 75 (if the CO₂ concentration is measured on a wet basis), or by following the procedure in section 4.2 of Appendix F of 40 CFR Part 75 (if the CO₂ concentration is measured on a dry basis).

(b) Next, multiply each hourly CO₂ mass emission rate by the EGU or stack operating time in hours (as defined in 40 CFR Part 72.2), to calculate the tons of CO₂.

(c) The hourly CO₂ emission rate and the EGU (or stack) operating hours used to calculate the CO₂ emission rate shall be recorded under 20.2.101.114 NMAC and shall be reported as required under 20.2.101.115 NMAC.

C. Owners or operators shall install, calibrate, maintain, and operate a sufficient number of watt meters to continuously measure and record the hourly net electric output from each affected EGU. These measurements shall be performed using 0.2 class electricity metering instrumentation and calibration procedures as specified under ANSI Standards No. C12.20 (see 40 CFR Part 60.17).

D. Consistent with 40 CFR Part 60.5520, if two or more affected EGUs serve a common electric generator, the owners or operators shall apportion the combined hourly net energy output to the individual affected EGU according to the fraction of the total steam load contributed by each EGU. Alternatively, if the EGUs are identical, owners or operators may apportion the combined hourly net electrical load to the individual EGUs according to the fraction of the total heat input contributed by each EGU.

E. In accordance with 40 CFR Part 60.13(g) and 40 CFR Part 60.5520, if an owner or operator of two or more affected EGUs that utilize the CEMS provisions in Subsection B of 20.2.101.113 NMAC share a common exhaust stack, the owners or operators may monitor the hourly CO₂ mass emissions at the common stack, in lieu of monitoring each EGU separately. If an owner or operator chooses this option, the hourly net generation shall be the sum of the hourly net generation for each individual affected EGU, and the owner or operator shall express the operating time as "stack operating hours" (as defined in 40 CFR Part 72.2). If an owner or operator demonstrates compliance with the emission standard of this Part at the common exhaust stack, each affected EGU utilizing the stack shall be determined to be in compliance.

F. In accordance with 40 CFR Part 60.13(g) and 40 CFR Part 60.5520, if an owner or operator of an affected EGU utilizing the CEMS provisions in Subsection B of 20.2.101.113 NMAC has exhaust gas that is emitted to the atmosphere through multiple stacks (or if the exhaust gases are routed to a common stack through multiple ducts and owners or operators elect to monitor the ducts), the owner or operator shall monitor the hourly CO₂ mass emissions and the "stack operating time" (as defined in 40 CFR Part 72.2) at each stack or duct separately. Owners or operators shall determine compliance with the emission standard of this Part by summing the CO₂ mass emissions measured at the individual stacks or ducts and dividing by the total net generation for the affected EGU.

G. Operating hours in which CO₂ mass emission rates are calculated using maximum potential values are not "valid operating hours" (as defined in 40 CFR Part 60.5540(a)(1)) and shall not be used in the compliance determinations under 40 CFR Part 60.5540.

[20.2.101.113 NMAC - N, 01/01/2023]

20.2.101.114 RECORDKEEPING REQUIREMENTS:

A. Owners or operators shall maintain records of the information used to demonstrate compliance with this Part as specified in 40 CFR Parts 60.7(b) and 40 CFR Part 60.7(f) and shall comply with the applicable recordkeeping requirements of subpart F of 40 CFR Part 75. Owners or operators not subject to the requirements of 40 CFR Part 75 shall, at minimum, keep the records required under 40 CFR Part 60.5560(b)(2).

B. Owners or operators shall keep records of the calculations performed to determine the hourly and daily total CO₂ mass emissions in tons for:

(1) Each operating day for each affected EGU; and

2022 NOV 14 PM 2:38

(2) Each monthly rolling 30-operating-day period.

C. Consistent with 40 CFR Part 60.5520, owners or operators shall keep records of the applicable data recorded and the calculations performed and used to determine the gross energy output for each operating month for each affected EGU.

D. Owners or operators shall keep records of the calculations performed to determine any site-specific carbon-based F-factors used in the emissions calculations (if applicable).

E. Owners or operators shall maintain records of the information used to demonstrate compliance with Section 114, of 20.2.101 NMAC and as specified in 40 CFR Part 60.5560.

F. Owners or operators shall comply with the following requirements for record retention:

(1) records shall be in a form suitable and readily available for review;

(2) owners or operators shall maintain each record for ten years after the date of conclusion of each compliance period; and

(3) Owners or operators shall maintain a record onsite for at least 5 years after the date of each measurement, maintenance, corrective action, report, or record, according to 40 CFR Part 60.7. Records that are accessible from a central location by a computer or other means that instantly provide access at the site meet this requirement. Owners or operators may maintain the records offsite for the remaining year as required by Subsection F of 20.2.101.114 NMAC.

[20.2.101.114 NMAC - N, 01/01/2023]

20.2.101.115 REPORTING REQUIREMENTS:

A. Owners or operators shall comply with the following reporting requirements:

(1) Owners or operators shall submit electronic quarterly reports. For the first 12 months, owners or operators shall submit an electronic quarterly report no later than 30 days after the end of each quarter. Thereafter, owners or operators shall submit a report for each subsequent calendar quarter, no later than 30 days after the end of the quarter.

(2) Owners or operators shall include the following information in each quarterly report:

(a) each rolling average CO₂ mass emission rate for which the last (twelfth) operating month in a 12-operating-month compliance period falls within the calendar quarter. Except as provided in this part, owners or operators shall calculate each average CO₂ mass emission rate for the compliance period according to the procedures in 40 CFR Part 60.5540. Owners or operators shall report the dates (month and year) of the first and twelfth operating months in each compliance period for which owners or operators performed a CO₂ mass emission rate calculation. Owners or operators shall identify compliance periods that ended in each quarterly report;

(b) if one or more compliance periods end in the quarter, owners or operators shall identify each operating month in the calendar quarter where owners or operators of an affected EGF violated the emission standard of this Part;

(c) if one or more compliance periods end in the quarter and there are no violations for an affected EGF, the owners or operators shall include an affirmative compliance statement in the quarterly report; and

(d) the percentage of valid operating hours in each 12-operating-month compliance period (i.e., the total number of valid operating hours (as defined in 40 CFR Part 60.5540(a)(1)) in that period divided by the total number of operating hours in that period and multiplied by one hundred percent).

(3) In the final quarterly report for each calendar year, owners or operators shall include the potential electric output of the affected EGU and the net energy output over the four quarters of the calendar year, in accordance with 40 CFR Part 60.5520.

B. Owners or operators shall meet all applicable reporting requirements under subpart G of 40 CFR Part 75 with reporting beginning January 1, 2023, or the date on which the EGF becomes an affected facility under this Part.

C. If any required monitoring system has not been provisionally certified by the applicable date on which emissions data reporting is required to begin under paragraph 40 CFR Part 60.55(c)(3), the maximum (or in some cases, minimum) potential value for the parameter measured by the monitoring system shall be reported until the required certification testing is successfully completed, in accordance with 40 CFR Part 75.4(j), 40 CFR Part 75.37(b), or section 2.4 of Appendix D of 40 CFR Part 75 (as applicable).

[20.2.101.115 NMAC - N, 01/01/2023]

HISTORY OF 20.2.101 NMAC: [RESERVED]