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, XX/XX/2021]

20.2.101.2 SCOPE: All geographic areas within the jurisdiction of the Environmental Improvement Board.
[20.2.101.2 NMAC – N, XX/XX/2021]

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 1of Subsection B of Section 74-2-5 NMSA 1978. [20.2.101.3 NMAC - N, XX/XX/2021]

20.2.101.4 DURATION: Permanent.
[20.2.101.4 NMAC - N, XX/XX/2021]

20.2.101.5 EFFECTIVE DATE: January 1, 2023, except where a later date is specified in another section.
[20.2.101.5 NMAC - N, XX/XX/2021]

20.2.101.6 OBJECTIVE: The objective of this Part is to establish a carbon dioxide (CO_2) emission standard for coal-fired electric generating facilities with an original installed capacity exceeding three hundred megawatts.
[20.2.101.6 NMAC - N, XX/XX/2021]

20.2.101.7 DEFINITIONS: In addition to the terms defined in 20.2.2 NMAC (Definitions), as used in this Part:

A. "Affected Electric Generating Facility or Affected EGF" means an 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 CO_2 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 one or more electric generating units (EGU) at the same location.

E. "Megawatt-hour (MWh)" means the total gross energy output (Pgross) from the affected EGU as determined by 40 CFR 60.5540.

F. "Operating day" means a calendar day during which any fuel is combusted in the affected EGU/EGF.

G. "Operating month" means a calendar month during which any fuel is combusted in the affected EGU/EGF.

H. "Operator" means the person or persons responsible for the overall operation of an affected electric generating facility.

I. "Owner" means the person or persons who own a stationary source or part of an affected electric generating facility.

[20.2.101.7 NMAC - N, XX/XX/2021]

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.
[20.2.101.8 NMAC - N, XX/XX/2021]

20.2.101.9 CONSTRUCTION: This Part shall be liberally construed to carry out its purpose.
[20.2.101.9 NMAC - N, XX/XX/2021]

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, XX/XX/2021]

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, XX/XX/2021]

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, XX/XX/2021]
[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 APPICABILITY: This Part shall apply to new and existing affected electric generating facilities.

20.2.101.112 EMISSION STANDARD: After January 1, 2023, the owner or operator of an affected EGF shall limit CO_2 emissions from the EGF to no more than 1,100 pounds per megawatt-hour on a 12-operating-month rolling average basis. The calculation shall be performed within fifteen days of the end of each calendar month. The calculation of pounds of CO_2emitted must include all CO_2emitted during the compliance period, including but not limited to emissions during startup, shutdown, and malfunction events. The calculation of megawatt-hours generated during the compliance period must include all megawatt-hours generated by the affected EGF, regardless of whether or how the electricity is used.
[20.2.101.111 NMAC - N, XX/XX/2021]

20.2.101.113 MONITORING REQUIREMENTS:

A. The owner or operator of an affected EGF shall prepare a monitoring plan to quantify the hourly CO_2 mass emission rate in tons per hour (tph), in accordance with the applicable provisions of 40 CFR § 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 this Subpart. The monitoring plan shall be updated as appropriate.

B. Owners or operators shall determine the hourly CO_2 mass emissions in pounds or tons from each affected electric generating unit (EGU) according to paragraphs (B)(1) through (5) of this Subsection.

(1) Owners or operators shall install, certify, operate, maintain, and calibrate a CO_2 continuous emission monitoring system (CEMS) to directly measure and record the hourly average CO_2 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 § 75.10(a)(3)(i). As an alternative to direct measurement of the CO_2 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 (O_2) monitor to calculate the hourly average CO_2 concentration in accordance with 40 CFR § 75.10(a)(3)(iii). If the CO_2 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 § 75.11(b). Alternatively, owners or operators may either use an appropriate fuel-specific default moisture value from § 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 § 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 determine the hourly CO_2 mass emission rate from each affected EGU. Owners or operator 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 on-going 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 CO_2 mass emissions (in lbs or tons) as described in Subparagraphs (a) through (c) of Paragraph 5 of this Section. Owners and operators shall only perform this calculation for valid operating hours, as defined in 40 CFR § 60.5540(a)(1).

(a) Begin with the hourly CO_2 mass emission rate (tons/hour), obtained either from Equation F-11 of Appendix F of 40 CFR part 75 (if the CO_2 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 CO_2 concentration is measured on a dry basis).

(b) Next, multiply each hourly CO_2 mass emission rate by the EGU or stack operating time in hours (as defined in 40 CFR § 72.2), to convert to tons of CO_2.

(c) The hourly CO_2 emission rate and the EGU (or stack) operating hours used to calculate the CO_2 emission rate shall be recorded under Section 114 and shall be reported as required under Section 115 of this Part.

C. Owners or operators shall install, calibrate, maintain, and operate a sufficient number of watt meters to continuously measure and record the hourly gross electric output from the 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 § 60.17). For an affected EGU equipped with an integrated carbon capture system that supplies steam to the carbon capture system, owners or operators shall install, calibrate, maintain, and operate meters to continuously record the total useful thermal output. The record of the thermal output shall be made on an hourly basis. For process steam applications, owners or operators shall install, calibrate, maintain, and operate meters to continuously record the steam flow rate, temperature, and pressure. The records of each parameter shall be made on an hourly basis.

D. Consistent with 40 CFR § 60.5520, if two or more affected EGUs serve a common electric generator, the owners or operators shall apportion the combined hourly gross 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 gross 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 §§ 60.13(g) and 60.5520, if an owner or operator of two or more affected EGUs that utilize the CEMS provisions in Paragraph B of this Section share a common exhaust stack, the owners or operators may monitor the hourly CO_2 mass emissions at the common stack, in lieu of monitoring each EGU separately. If an owner or operator chooses this option, the hourly gross energy output (electric, thermal, and/or mechanical, as applicable) shall be the sum of the hourly loads for each individual affected EGU, and the owner or operator shall express the operating time as "stack operating hours" (as defined in 40 CFR § 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 §§ 60.13(g) and 60.5520, if an owner or operator of an affected EGU utilizing the CEMS provisions in Paragraph B of this Section 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 CO_2 mass emissions and the "stack operating time" (as defined in 40 CFR § 72.2) at each stack or duct separately. Owners or operators shall determine compliance with the emission standard of this Part by summing the CO_2 mass emissions measured at the individual stacks or ducts, and dividing by the total gross output for the affected EGU.

G. Operating hours in which CO_2 mass emission rates are calculated using maximum potential values are not "valid operating hours" (as defined in § 60.5540(a)(1)) and shall not be used in the compliance determinations under 40 CFR § 60.5540.

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 § 60.7(b) and (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 75shall, at minimum, keep the records required under 40 CFR §60.5560(b)(2).

B. Owners or operators shall keep records of the calculations performed to determine the hourly and monthly total CO_2 mass emissions in tons for:

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

(2) Each monthly rolling 12-month period.

C. Consistent with 40 CFR § 60.5520, owners or operators shall keep records of the applicable data

recorded and calculations performed 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 owners or operators used in the emissions calculations (if applicable).

E. Owners or operators shall maintain records of the information used to demonstrate compliance with this Subsection as specified in 40 CFR § 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 3 years after the date of conclusion of each compliance period; and

(3) Owners or operators shall maintain a record onsite for at least 2 years after the date of each measurement, maintenance, corrective action, report, or record, according to 40 CFR § 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(s) as required by this subpart.

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. After owners or operators have accumulated the first 12-operating months for the affected EGU, owners or operators shall submit a report for the calendar quarter that includes the twelfth operating month no later than 30 days after the end of that 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 CO_2 mass emission rate for which the last (twelfth) operating month in a 12-operating-month compliance period falls within the calendar quarter. Owners or operators shall calculate each average CO_2 mass emission rate for the compliance period according to the procedures in 40 CFR § 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 CO_2 mass emission rate calculation. If there are no compliance periods that end in the quarter, owners or operators shall include a statement to that effect;

(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 EGU 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 EGU, the owners or operators shall include a statement to that effect in the report;

(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 § 60.5540(a)(1)) in that period divided by the total number of operating hours in that period, and multiplied by 100 percent); and

(e) An indication whether or not the hourly gross energy output (Pgross) values used in the compliance determinations are based solely upon gross electrical load, in accordance with 40 CFR § 60.5520.

(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 gross energy output over the four quarters of the calendar year, in accordance with 40 CFR § 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 §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 § 75.4(j), § 75.37(b), or section 2.4 of Appendix D of part 40 CFR 75 (as applicable).