335-3-8-.72 NO_X Budget Program Monitoring and Reporting.

(1) Monitoring and reporting requirements. The owners and operators and, to the extent applicable, the NO_X authorized account representative of each NO_X Budget source and each NO_X Budget unit at the source shall implement a monitoring and reporting system necessary to attribute ozone season NO_X mass emissions to each NO_X Budget Unit at the source and provide a compliance certification report to be received by the Department by the 30th of November following each ozone season:

(a) A NO_X Budget Unit that is required by any regulation or permit, or elects to monitor and report NO_X mass emissions in accordance with 40 CFR Part 75 shall adhere to the monitoring and reporting requirements of 40 CFR Part 75 and the data from the Part 75 monitoring system shall be utilized by the Department.

1. For purposes of a source subject to the monitoring and reporting provisions of Part 75, the definitions in 40 CFR 72.2 shall apply, and the terms "affected unit", "designated representative", and "continuous emission monitoring system" (or "CEMS") in 40 CFR Part 75 shall be replaced by the terms "NO_X Budget unit", "NO_X authorized account representative", and "continuous emission monitoring system" (or "CEMS"), respectively, as defined in 335-3-8-.71(2).

(b) A NOx Budget Unit that elects to monitor and report NO_X mass emissions utilizing a continuous emissions rate monitoring system (CERMS) shall adhere to the QA/QC requirements of 40 CFR Part 60, Performance Specification 2 and 40 CFR Part 60 Appendix F for the NOx CEMS, 40 CFR Part 60, Performance Specification 3 for a O_2 or CO_2 CEMS, and 40 CFR Part 60, Performance Specification 6 for Stack Gas Flow CEMS. The data from the CEMS shall be utilized by the Department.

(c) A NO_X Budget Unit that is required by any regulation or permit, or elects to operate a NO_X CEMS and is not subject to subparagraph (1)(a) of this rule, shall comply with the applicable monitoring and reporting regulations and utilize the CEMS data in conjunction with one of the following methods:

1. NO_X budget sources utilizing this alternative monitoring option will calculate the NO_X mass emissions (tons) for each ozone season and report the total as part of the compliance certification report to the Department no later

than November 30th following that ozone season. The calculation for NO_X mass emissions shall be as follows:

$$M = (R)*(HI)/2000$$

Where M is the NO_X mass emissions (tons),
R is the NO_X emissions rate (lb/mmBtu)
HI is the heat input (mmBtu
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(i) The NO_X emission rate would be calculated from CEMS measurements using Method 19 in Appendix A of 40 CFR Part 60. For multi-fuel fired units, a worst case F-factor may be utilized for the purpose of calculating the NOx emission rate;

(i) The heat input shall be calculated by totaling the heating value of the fuels used multiplied by the amount of each respective fuel utilized. The heat input due to the firing of wood waste may be calculated from steam production, less the heat input from other fuels. The calculation method for determining wood waste heat input must be detailed in the monitoring protocol required under subparagraph (e) of this paragraph; and

(ii) Each CEMS monitor shall meet the requirements of 40 CFR Part 60 Appendix B, Performance Specifications 2 and Appendix F.

Or,

2. NO_X budget sources utilizing this alternative monitoring option will calculate the NO_X mass emissions (tons) for each ozone season and report the total as part of the compliance certification report to the Department no later than November 30th following that ozone season. The calculation for NO_X mass emissions shall be as follows:

$$M = 0.1194(R)*(Q)*t_{op},/2000$$

Where M is the NO_X mass emissions (tons),
R is the NO_X emissions concentration (ppm_w)
Q is the flow rate (mmscf/hr), and
t_{op} is the operating time (hr).

(i) The NO_X emission concentration shall be determined from CEMS measurements.

(ii) The flow rate shall be determined by:

(I) The average flow rate of the unit under normal operating conditions as demonstrated by previous 40 CFR Part 75 monitoring, or

(II) The flow rate of the unit as determined by 40 CFR Part 60, Appendix A, Methods 1-4.

(iii) Each CEMS monitor shall meet the requirements of 40 CFR Part 60 Appendix B, Performance Specifications 2 and Appendix F.

~~3. A stack test shall be performed at least once every five years to verify historical NOx concentration and flow rate factors used to compute NOx mass emissions.~~

(d) A NO_X Budget Unit that is not subject to subparagraph (1)(a), (1)(b) or 1(c) shall calculate the NO_X concentration for each ozone season and report the total as part of the compliance certification report to the Department no later than November 30th following that ozone season. The calculation for NO_X concentration shall be that of rule 335-3-8-.72(1)(c)2. with use of the following:

1. For sources which have previously operated CEMS subject to the requirements of 40 CFR Part 75:

(i) The average NO_X concentration of the unit under normal operating conditions as demonstrated by previous 40 CFR Part 75 monitoring,

(ii) The average flow rate of the unit under normal operating conditions as demonstrated by previous 40 CFR Part 75 monitoring,

(iii) If the unit operating parameters, such as fuel composition, change beyond normal conditions from that of the Part 75 monitoring, additional testing may be required to verify the NOX concentration and the flow rate, or to establish new NOx concentration and flow rate factors.

2. For units which do not have NOx concentration and flow rate factors from Part 75 CEMS, initial testing utilizing 40 CFR Part 60, Appendix A, Methods 1-4 and 7 or 7e shall be performed, followed by at least two annual tests which shall be used to establish NOx concentration and flow rate factors. If the unit operating parameters, such as fuel composition, change beyond normal conditions during the initial testing, additional testing may be required to verify the NO_X concentration and the flow rate, or to establish new NOx concentration and flow rate factors, as approved by the Department.

3. Any source subject to the requirements of subparagraph (d) of this paragraph must include in the annual report required under subparagraph (2)(a) of this rule a statement of whether the unit operating parameters were within the historical parameters used to establish the appropriate NOx concentration and flow rate factors.

4. The monitoring protocol would be approved if the Department finds that the protocol is designed to provide all information necessary to accurately attribute NOx emissions to the unit, and would be sufficient to determine whether the sources are collectively in compliance with the State of Alabama NOx Budget.

5. After the testing required under subparagraph (1)(d)2 of this rule has been completed, a test in accordance with the methods used in 40 CFR Part 60, Appendix A, Methods 1-4 and 7 or 7E shall be performed at least once every five years to verify historical NOx concentration and flow rate factors used to compute NOx mass emissions.

~~4.~~

(e) A monitoring protocol shall be submitted for review and approval by the Department for each NOx Budget Unit. Minimum information in the monitoring protocol would be the monitoring method in subparagraphs (a), (b), or (c) of this paragraph; the normal operating conditions of the unit, including fuel type and operating rate; and any unit specific NOx concentration factors and flow rate factors utilized to calculate emissions. Additional information such as multiple operating scenarios or missing data substitution methods should be included as relevant.

1. For units which commenced operation prior to May 1, 2020, the pre-existing monitoring requirements must be met until a monitoring protocol is approved by the Department.

2. For units which commence operation on or after May 1, 2020, a monitoring protocol must be approved by the Department prior to operation during the initial ozone season.

3. Whenever the monitoring is changed, the pre-existing monitoring requirements shall be met until a new monitoring protocol is approved by the Department.

(2) Annual Compliance Report and Certification.

(a) For each control period in which one or more NO_X Budget units at a source are subject to the NO_X Budget program, the NO_X authorized account representative of the source shall submit to the Department by November 30 of that year, a compliance certification report for each source covering all such units.

1. The NO_X authorized account representative shall include in the compliance certification report under subparagraph (a) of this paragraph identification of each NO_X Budget unit, all NO_X mass emissions produced by the

given unit for the control period covered by the report, supporting documentation, and the following certifications:

(i) the NO_X authorized account representative shall certify, based on reasonable inquiry of those persons with primary responsibility for operating the source and the NO_X Budget units at the source in compliance with the NO_X Budget Program, whether each NO_X Budget unit for which the compliance certification is submitted was operated during the calendar year covered by the report in compliance with the requirements of the NO_X Budget Program applicable to the unit, including whether the monitoring plan that governs the unit has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute NO_X emissions to the unit, in accordance with rule 335-3-8-.72(1).

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