

**Department of State
Division of Publications**

312 Rosa L. Parks Avenue, 8th Floor Snodgrass/TN Tower
Nashville, TN 37243
Phone: 615-741-2650
Fax: 615-741-5133
Email: register.information@tn.gov

For Department of State Use Only

Sequence Number: 03-03-16
Rule ID(s): 6132
File Date: 3/7/16
Effective Date: 6/5/16

Rulemaking Hearing Rule(s) Filing Form

Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing. T.C.A. § 4-5-205

Pursuant to Tenn. Code Ann. § 4-5-229, any new fee or fee increase promulgated by state agency rule shall take effect on July 1, following the expiration of the ninety (90) day period as provided in § 4-5-207. This section shall not apply to rules that implement new fees or fee increases that are promulgated as emergency rules pursuant to § 4-5-208(a) and to subsequent rules that make permanent such emergency rules, as amended during the rulemaking process. In addition, this section shall not apply to state agencies that did not, during the preceding two (2) fiscal years, collect fees in an amount sufficient to pay the cost of operating the board, commission or entity in accordance with § 4-29-121(b).

Agency/Board/Commission:	Environment and Conservation
Division:	Air Pollution Control
Contact Person:	Jeryl W. Stewart
Address:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15 th Floor Nashville, Tennessee
Zip:	37243
Phone:	(615) 532-0605
Email:	Jeryl.Stewart@tn.gov

Revision Type (check all that apply):

- Amendment
 New
 Repeal

Rule(s) Revised (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please enter only ONE Rule Number/Rule Title per row)

Chapter Number	Chapter Title
1200-03-16	New Source Performance Standards
Rule Number	Rule Title
1200-03-16-.02	Fossil Fuel-Fired Steam Generating for which Construction is Commenced After April 3, 1973
1200-03-16-.59	Industrial-Commercial-Institutional Steam Generating Units

(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to <http://state.tn.us/sos/rules/1360/1360.htm>)

Chapter 1200-03-16
New Source Performance Standards

Amendments

Rule 1200-03-16-.02 Fuel Fired Steam Generators for Which Construction is Commenced After April 3, 1972 is amended by deleting it in its entirety and replacing it with the following so that, as amended, the rule shall read as follows:

1200-03-16-.02 Fuel Fired Steam Generators for Which Construction is Commenced After April 3, 1972.

(1) Applicability

(a) The affected facilities to which the provisions of this rule apply are:

1. Each fossil-fuel-fired steam generating unit of more than 73 mega watts heat input rate (250 million Btu per hour) commenced on or after April 3, 1972, and before November 6, 1988.
2. Each fossil-fuel and each fossil-fuel and wood-residue-fired steam generating unit capable of firing fossil fuel at a heat input rate of more than 73 megawatts (250 million Btu per hour) that commenced construction or modification after November 6, 1988.

(b) Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels as defined in this rule, shall not bring that unit under the applicability of this rule.

(c) Reserved.

(d) Any facility covered under Rule 1200-03-16-.03 is not covered under this rule.

(e) Any affected facility meeting the applicability requirements of subparagraph (1)(a) of Rule 1200-03-16-.59 commencing construction, modification, or reconstruction after November 6, 1988 is not subject to this rule.

(2) Reserved

Authority: T.C.A. §§ 68-201-101 et seq. and 4-5-201 et seq.

Rule 1200-03-16-.59 Industrial Commercial-Institutional Steam Generating Units is amended by deleting it in its entirety and replacing it with the following so that, as amended, the rule shall read as follows:

1200-03-16-.59 Industrial Commercial-Institutional Steam Generating Units

(1) Applicability and Definition of Affected Facility

(a) The affected facility to which this rule applies is each industrial-commercial-institutional steam generating unit for which construction, modification, or reconstruction is commenced after November 6, 1988 and which has a heat input capacity from fuels combusted in the steam generating unit of more than 29 MW (100 million Btu/hour).

(b) Reserved

(c) Reserved

(d) Reserved

- (e) Reserved
- (f) Reserved
- (g) Any affected facility meeting the applicability requirements of subparagraph (a) of this paragraph commencing construction, modification, or reconstruction after November 6, 1988 is not subject to Rule 1200-03-16-.02.

(2) Reserved

Authority: T.C.A. §§ 68-201-101 et seq. and 4-5-201 et seq.

* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

Board Member	Aye	No	Abstain	Absent	Signature (if required)
Vacant Working in Municipal Government					
Dr. John Benitez Licensed Physician with experience in health effects of air pollutants	✓				<i>John Benitez</i>
Karen Cisler Environmental Interests	✓				<i>Karen Cisler</i>
Dr. Wayne T. Davis Conservation Interests	✓				<i>Wayne T. Davis</i>
Stephen Gossett Working for Industry with technical experience	✓				<i>Stephen Gossett</i>
Dr. Shawn A. Hawkins Working in field related to Agriculture or Conservation				✓	
Richard Holland Working for Industry with technical experience	✓				<i>Richard Holland</i>
Chris Moore Working in management in Private Manufacturing	✓				<i>Chris Moore</i>
Michelle Owenby Commissioner's Designee, Dept. of Environment and Conservation	✓				<i>Michelle Owenby</i>
John Roberts Small Generator of Air Pollution representing Automotive Interests				✓	
Amy Spann Registered Professional Engineer	✓				<i>Amy Spann</i>
Larry Waters County Mayor	✓				<i>Larry Waters</i>
Jimmy West Commissioner's Designee, Dept. of Economic and Community Development	✓				<i>Jimmy West</i>
Vacant Involved with Institution of Higher Learning on air pollution evaluation and control					

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Air Pollution Control Board on 07/08/2015, and is in compliance with the provisions of T.C.A. § 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: 10/09/13

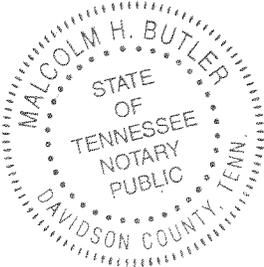
Rulemaking Hearing(s) Conducted on: (add more dates). 12/03/13

Date: 7/20/2015

Signature: Barry R. Stephens

Name of Officer: Barry R. Stephens

Title of Officer: Technical Secretary



Subscribed and sworn to before me on: 7/20/2015

Notary Public Signature: Malcolm H. Butler

My commission expires on: 1-11-2017

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

Herbert H. Slatery III
Herbert H. Slatery III
Attorney General and Reporter
2/8/2016
Date

Department of State Use Only

Filed with the Department of State on: 3/7/16

Effective on: 6/5/16

Tre Hargett
Tre Hargett
Secretary of State

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PUBLICATIONS

Public Hearing Comments

One copy of a document containing responses to comments made at the public hearing must accompany the filing pursuant to T.C.A. § 4-5-222. Agencies shall include only their responses to public hearing comments, which can be summarized. No letters of inquiry from parties questioning the rule will be accepted. When no comments are received at the public hearing, the agency need only draft a memorandum stating such and include it with the Rulemaking Hearing Rule filing. Minutes of the meeting will not be accepted. Transcripts are not acceptable.

There were no verbal or written comments received at the public hearing or during the comment period.

Regulatory Flexibility Addendum

Pursuant to T.C.A. §§ 4-5-401 through 4-5-404, prior to initiating the rule making process as described in T.C.A. § 4-5-202(a)(3) and T.C.A. § 4-5-202(a), all agencies shall conduct a review of whether a proposed rule or rule affects small businesses.

- (1) The type or types of small business and an identification and estimate of the number of small businesses subject to the proposed rule that would bear the cost of, or directly benefit from the proposed rule.

The amendments to Rules 1200-03-16-.02 and 1200-03-16-.59 do not impact any small businesses. The general effect is beneficial in that businesses would not be subject to obsolete state regulations in addition to the current federal regulations.

- (2) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed rule, including the type of professional skills necessary for preparation of the report or record.

None.

- (3) A statement of the probable effect on impacted small businesses and consumers.

The Board is not aware of any affected facility owned by an entity classified as a small business. The amendments to Rules 1200-03-16-.02 and 1200-03-16-.59 could prevent owners of affected facilities from being subject to both obsolete state and current federal regulations. There would be no effect on consumers.

- (4) A description of any less burdensome, less intrusive or less costly alternative methods of achieving the purpose and objectives of the proposed rule that may exist, and to what extent the alternative means might be less burdensome to small business.

None.

- (5) A comparison of the proposed rule with any federal or state counterparts.

The provisions of Chapter 1200-03-16 are the state equivalent of federal regulations contained in 40 CFR Part 60. The amendments to Rules 1200-03-16-.02 and 1200-03-16-.59 serve to allow the Board to avoid requiring subject facilities to be subject to both obsolete state regulations and their current federal equivalents.

- (6) Analysis of the effect of the possible exemption of small businesses from all or any part of the requirements contained in the proposed rule.

Not applicable.

Impact on Local Governments

Pursuant to T.C.A. §§ 4-5-220 and 4-5-228 "any rule proposed to be promulgated shall state in a simple declarative sentence, without additional comments on the merits of the policy of the rules or regulation, whether the rule or regulation may have a projected impact on local governments." (See Public Chapter Number 1070 (<http://state.tn.us/sos/acts/106/pub/pc1070.pdf>) of the 2010 Session of the General Assembly)

The Department anticipates that this amended rule will not have a financial impact on local governments.

Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to T.C.A. § 4-5-226(i)(1).

- (A) A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

Rule 1200-03-16-.02 Fossil Fuel-Fired Steam Generating for which Construction is Commenced After April 3, 1973, and Rule 1200-03-16-.59 Industrial-Commercial-Institutional Steam Generating Units are being amended by deleting paragraphs and subparagraphs of each rule, as they have been made obsolete by revisions to the equivalent federal regulations. Certain current language of each rule is being retained to preserve the validity of references set forth in other chapters of Division 1200-03.

- (B) A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

Chapter 1200-03-16 is the state equivalent of the federal regulations found in Title 40, Part 60, of the Code of Federal Regulations.

- (C) Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Rules 1200-03-16-.02 and 1200-03-16-.59 only affect a very small number of very large steam generating units (boilers) located in Tennessee. There were no comments concerning these proposed rule amendments.

- (D) Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule;

The Tennessee Air Pollution Control Board is not aware of any.

- (E) An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two percent (2%) of the agency's annual budget or five hundred thousand dollars (\$500,000), whichever is less;

There is no fiscal impact resulting from these amendments.

- (F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Jeryl W. Stewart
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, Tennessee 37243
(615) 532-0605

- (G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Emily Urban
Assistant General Counsel
Office of General Counsel

- (H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel
SS-7039 (November 2014)

Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, Tennessee 37243
(615) 532-8685
Emily.Urban@tn.gov

(I) Any additional information relevant to the rule proposed for continuation that the committee requests.

The Tennessee Air Pollution Control Board is not aware of any.

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Agency/Board/Commission:	Environment and Conservation
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Revision Type (check all that apply):

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Rule(s) Revised (ALL chapters and rules contained in filing must be listed here. If needed, copy and paste additional tables to accommodate multiple chapters. Please enter only ONE Rule Number/Rule Title per row)

Chapter Number	Chapter Title
1200-03-16	New Source Performance Standards
Rule Number	Rule Title
1200-03-16-.02	Fossil Fuel-Fired Steam Generating for which Construction is Commenced After April 3, 1973
1200-03-16-.59	Industrial-Commercial-Institutional Steam Generating Units

(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to <http://state.tn.us/sos/rules/1360/1360.htm>)

Chapter 1200-03-16
New Source Performance Standards

Amendments

Rule 1200-03-16-.02 Fuel Fired Steam Generators for Which Construction is Commenced After April 3, 1972 is amended by deleting it in its entirety and replacing it with the following so that, as amended, the rule shall read as follows:

1200-03-16-.02 Fuel Fired Steam Generators for Which Construction is Commenced After April 3, 1972.

(1) Applicability

(a) The affected facilities to which the provisions of this rule apply are:

1. Each fossil-fuel-fired steam generating unit of more than 73 mega watts heat input rate (250 million Btu per hour) commenced on or after April 3, 1972, and before November 6, 1988.
2. Each fossil-fuel and each fossil-fuel and wood-residue-fired steam generating unit capable of firing fossil fuel at a heat input rate of more than 73 megawatts (250 million Btu per hour) that commenced construction or modification after November 6, 1988.

(b) Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels as defined in this rule, shall not bring that unit under the applicability of this rule.

(c) ~~The requirements of subparts (5)(a)2(iv) and (v), subparagraphs (b), and (5)(d), and subpart (6)(f)4.(vi) of this rule are applicable to lignite-fired steam generating units that commenced construction or modification after November 6, 1988. Reserved.~~

(d) Any facility covered under Rule 1200-03-16-.03 is not covered under this rule.

(e) Any affected facility meeting the applicability requirements of ~~1200-03-16-.59~~ subparagraph (1)(a) of Rule 1200-03-16-.59 commencing construction, modification, or reconstruction after November 6, 1988 is not subject to this rule.

(2) Definitions: Reserved

(a) ~~"Fossil-fuel-fired steam generating unit" means a furnace or boiler used in the process of burning fossil fuel for the purpose of producing steam by heat transfer.~~

(b) ~~"Fossil fuel" means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials for the purpose of creating useful heat.~~

(c) ~~"Coal refuse" means waste products of coal mining, cleaning, and coal preparation operations (e.g. culm, gob, etc.) containing coal, matrix material, clay and other organic and inorganic material.~~

(d) ~~"Fossil fuel and wood residue-fired steam generating unit" means a furnace or boiler used in the process of burning fossil fuel and wood residue for the purpose of producing steam by heat transfer.~~

(e) ~~"Wood residue" means bark, sawdust, slabs, chips, shavings, mill trim, and other wood products derived from wood processing and forest management operations.~~

~~(f) "Coal" means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society for Testing Material. Designation D 388-77.~~

~~(Note: All references to ASTM in this rule refers to the American Society for Testing Materials. Copies of methods are available for purchase by writing to ASTM, 1916 Race Street, Philadelphia, PA 19103 or by writing to the Tennessee Division of Air Pollution Control, 701 Broadway, 4th Floor Customs House, Nashville, TN 37219. Be sure and specify which method is desired).~~

~~(3) Standard for particulate matter and visible emissions.~~

~~(a) On and after the date on which the performance test required to be conducted by 1200-3-16-.01(5)(g) is completed, no owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which:~~

- ~~1. Contain particulate matter in excess of 43 nanograms per joule heat input (0.10 lb per million Btu) derived from fossil fuel or fossil fuel and wood residue.~~
- ~~2. For units described in part (1)(a)1. of this rule, exhibit greater than 20 percent opacity except that a maximum of 40 percent opacity shall be permissible for not more than 2 minutes in any hour.~~
- ~~3. For units described in part (1)(a)2. of this rule, exhibit greater than 20 percent opacity except for one six minute period per hour of not more than 27 percent opacity.~~

~~(4) Standard for sulfur dioxide.~~

~~(a) On and after the date on which the performance test required to be conducted by 1200-3-16-.01(5) is completed, no owner or operator subject to the provisions of this rule shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of:~~

- ~~1. 340 nanograms per joule heat input (0.80 lb per million Btu) derived from liquid fossil fuel or liquid fossil fuel and wood residue.~~
- ~~2. 520 nanograms per joule heat input (1.2 lb per million Btu) derived from solid fossil fuel or solid fossil fuel and wood residue.~~

~~(b) When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) shall be determined by proration using the following formula:~~

$$PS_{SO_2} = \frac{[y(340) + z(520)]}{(y + z)}$$

~~where:~~

~~PS_{SO₂} is the prorated standard for sulfur dioxide when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;~~

~~y is the percentage of total heat input derived from liquid fossil fuel, and~~

~~z is the percentage of total heat input derived from solid fossil fuel.~~

~~(c) Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.~~

~~(5) Standard for nitrogen oxides.~~

~~(a) On and after the date on which the performance test required to be conducted by 1200-3-16-.01(5) is completed, no owner or operator subject to the provisions of this rule shall cause to be~~

discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO₂ in excess of:

1. For units described in part (1)(a)1. of this rule:

- (i) 86 nanograms per joule heat input (0.20 lb per million Btu) derived from gaseous fossil fuel.
- (ii) 130 nanograms per joule heat input (0.30 lb per million Btu) derived from liquid fossil fuel.
- (iii) 300 nanograms per joule heat input (0.70 lb per million Btu) derived from solid fossil fuel (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse).

2. For units described in part (1)(a)2. of this rule:

- (i) 86 nanograms per joule heat input (0.20 lb per million Btu) derived from gaseous fossil fuel or gaseous fossil fuel and wood residue.
- (ii) 130 nanograms per joule heat input (0.30 lb per million Btu) derived from liquid fossil fuel or liquid fossil fuel and wood residue.
- (iii) 300 nanograms per joule heat input (0.70 lb per million Btu) derived from solid fossil fuel or solid fossil fuel and wood residue (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse).
- (iv) 260 nanograms per joule heat input (0.60 lb per million Btu) derived from lignite or lignite and wood residue (except as provided by part 2(v) of this subparagraph).
- (v) 340 nanograms per joule heat input (0.80 lb per million Btu) derived from lignite which is mined in North Dakota, South Dakota, or Montana and which is burned in a cyclone fired unit.

(b) Except as provided under subparagraphs (c) and (d) of this paragraph when different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

1. For units described in part (1)(a)1. of this rule:

$$PS_{NO_x} = \frac{x(86)+y(130)+z(300)}{x+y+z}$$

where:

PS_{NO_x} is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired;

x is the percentage of total heat input derived from gaseous fossil fuel;

y is the percentage of total heat input derived from liquid fossil fuel; and

z is the percentage of total heat input derived from solid fossil fuel (except lignite or a solid fossil fuel containing 25% by weight or more coal refuse).

2. For units described in part (1)(a)2. of this rule:

$$PS_{NO_x} = \frac{w(260)+x(86)+y(130)+z(300)}{w+x+y+z}$$

where:

PS_{NO_x} = is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in nanograms per joule heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;

w = is the percentage of total heat input derived from lignite;

x = is the percentage of total heat input derived from gaseous fossil fuel;

y = is the percentage of total heat input derived from liquid fossil fuel; and

z = is the percentage of total heat input derived from solid fossil fuel (except lignite).

- (c) When a fossil fuel containing at least 25 percent, by weight, of coal refuse is burned in combination with gaseous, liquid, or other solid fossil fuel or wood residue, the standard for nitrogen oxides does not apply.
- (d) Cyclone-fired units which burn fuels containing at least 25 percent of lignite that is mined in North Dakota, South Dakota, or Montana remain subject to subpart (a)2.(v) of this paragraph regardless of the types of fuel combusted in combination with that lignite.
- (6) Emission and fuel monitoring.
- (a) Each owner or operator shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions, and either oxygen or carbon dioxide except as provided in subparagraph (b) of this paragraph.
- (b) Certain of the continuous monitoring system requirements under subparagraph (a) of this paragraph do not apply to owners or operators under the following conditions:
1. For a fossil fuel-fired steam generator that burns only gaseous fossil fuel, continuous monitoring systems for measuring the opacity of emissions and sulfur dioxide emissions are not required.
 2. For a fossil fuel-fired steam generator that does not use a flue gas desulfurization device, a continuous monitoring system for measuring sulfur dioxide emissions is not required if the owner or operator monitors sulfur dioxide emissions by fuel sampling and analysis under subparagraph (d) of this paragraph.
 3. Notwithstanding 1200-3-16-.01(8)(b), installation of a continuous monitoring system for nitrogen oxides may be delayed until after the initial performance tests under 1200-3-16-.01(5) have been conducted. If the owner or operator demonstrates during the performance test that emissions of nitrogen oxides are less than 70 percent of the applicable standards in paragraph (5) of this rule, a continuous monitoring system for measuring nitrogen oxides emissions is not required. If the initial performance test results show that nitrogen oxide emissions are greater than 70 percent of the applicable standard, the owner or operator shall install a continuous monitoring system for nitrogen oxides within one year after the date of the initial performance tests under 1200-3-16-.01(5) and comply with all other applicable monitoring requirements under this rule.
 4. If an owner or operator does not install any continuous monitoring systems for sulfur oxides and nitrogen oxides, as provided under parts (b)1. and (b)3. or parts (b)2. and (b)3. of this paragraph a continuous monitoring system for measuring either oxygen or carbon dioxide is not required.
- (c) For performance evaluations under 1200-3-16-.01(8)(c) and calibration checks under 1200-3-16-.01(8)(d) the following procedures shall be used:
1. Reference Methods 6 or 7, as applicable, shall be used for conducting performance evaluations of sulfur dioxide and nitrogen oxides continuous monitoring systems.

2. ~~Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 as stated in the *Federal Register*, Vol. 48, No. 102, Wednesday, May 25, 1983, beginning on page 23608.~~
3. ~~For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent and for a continuous monitoring system measuring sulfur oxides or nitrogen oxides the span value shall be determined as follows:~~

(In parts per million)

Fossil fuel	Span value for sulfur dioxide	Span value for nitrogen oxides
Gas	not applicable	500
Liquid	1,000	500
Solid	1,500	500
Combinations	$1,000y + 1,500z$	$500(x + y) + 1,000z$

where:

- x = the fraction of total heat input derived from gaseous fossil fuel, and
- y = the fraction of total heat input derived from liquid fossil fuel, and
- z = the fraction of total heat input derived from solid fossil fuel.

4. ~~All span values computed under part 3. of this subparagraph for burning combinations of fossil fuels shall be rounded to the nearest 500 ppm.~~
5. ~~For a fossil fuel fired steam generator that simultaneously burns fossil fuel and nonfossil fuel, the span value of all continuous monitoring systems shall be subject to the Technical Secretary's approval.~~

(d) ~~Fuel analysis shall be conducted according to specifications provided by the Technical Secretary.~~

(e) ~~For any continuous monitoring system installed under subparagraph (a) of this paragraph, the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/million Btu):~~

1. ~~When a continuous monitoring system for measuring oxygen is selected, the measurement of the pollutant concentration and oxygen concentration shall each be on a consistent basis (wet or dry). Alternative procedures approved by the Technical Secretary shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used:~~

$$E = CF \left[\frac{20.9}{(20.9 - \%O_2)} \right]$$

where:

E, C, F, and %O₂ are determined under subparagraph (f) of this paragraph.

2. ~~When a continuous monitoring system for measuring carbon dioxide is selected, the measurement of the pollutant concentration and carbon dioxide concentration shall each be on a consistent basis (wet or dry) and the following conversion procedure shall be used:~~

$$E = CF_c \left[\frac{100}{\%CO_2} \right]$$

where:

E , C , F_c , and $\%CO_2$ are determined under subparagraph (f) of this paragraph.

(f) The values used in the equations under parts (e)1. and 2. of this paragraph are derived as follows:

1. E = pollutant emissions, ng/J (lb/million Btu).
2. C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by 4.15×10^4 M ng/dscm per ppm (2.59×10^{-9} M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). $M = 64.07$ for sulfur dioxide and 46.01 for nitrogen oxides.
3. $\%O_2$, $\%CO_2$ = oxygen or carbon dioxide volume (expressed as percent).
4. F , F_c = a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of carbon dioxide generated to the calorific value of the fuel combusted (F_c), respectively. Values of F and F_c are given as follows:

- (i) For anthracite coal as classified according to A.S.T.M. D-388-77, $F = 2.723 \times 10^{-7}$ dscm/J (10,140 dscf/million Btu) and $F_c = 0.532 \times 10^{-7}$ scm CO_2 /J (1,980 scf CO_2 /million Btu).
- (ii) For subbituminous and bituminous coal as classified according to A.S.T.M. D-388-77, $F = 2.637 \times 10^{-7}$ dscm/J (9,820 dscf/million Btu) and $F_c = 0.486 \times 10^{-7}$ scm CO_2 /J (1,810 scf CO_2 /million Btu).
- (iii) For liquid fossil fuels including crude, residual, and distillate oils, $F = 2.476 \times 10^{-7}$ dscm/J (9,220 dscf/million Btu) and $F_c = 0.384 \times 10^{-7}$ scm CO_2 /J (1,430 scf CO_2 /million Btu).
- (iv) For gaseous fossil fuels, $F = 2.347 \times 10^{-7}$ dscm/J (8,740 dscf/million Btu). For natural gas, propane, and butane fuels, $F_c = 0.279 \times 10^{-7}$ scm CO_2 /J (1,040 scf CO_2 /million Btu) for natural gas, 0.322×10^{-7} scm CO_2 /J (1,200 scf CO_2 /million Btu) for propane and 0.338×10^{-7} scm CO_2 /J (1,260 scf CO_2 /million Btu) for butane.
- (v) For bark $F = 2.589 \times 10^{-7}$ dscm/J (9,640 dscf/million Btu) and $F_c = 0.500 \times 10^{-7}$ scm CO_2 /J (1,840 scf CO_2 /million Btu). For wood residue other than bark $F = 2.492 \times 10^{-7}$ dscm/J (9,280 dscf/million Btu) and $F_c = 0.494 \times 10^{-7}$ scm CO_2 /J (1,860 scf CO_2 /million Btu).
- (vi) For lignite coal as classified according to A.S.T.M. D-388-77, $F = 2.659 \times 10^{-7}$ dscm/J (9,900 dscf/million Btu) and $F_c = 0.516 \times 10^{-7}$ scm CO_2 /J (1,920 scf CO_2 /million Btu).

5. The owner or operator may use the following equation to determine an F factor (dscm/J or dscf/million Btu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Technical Secretary) or F_c factor (scm CO_2 /J, or scf CO_2 /million Btu) on either basis in lieu of the F or F_c factors specified in part 4. of this subparagraph:

$$F = 10^{-6} \frac{[227.2(\%H) + 95.5(\%C) + 35.6(\%S) + 8.7(\%N) - 28.7(\%O)]}{GCV}$$

$$F_c = \frac{2.0 \times 10^{-5} (\%C)}{GCV \text{ (SI units)}}$$

$$F = 10^6 \frac{[3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O)]}{GCV \text{ (English units)}}$$

$$F_c = \frac{20.0(\%C)}{GCV \text{ (SI units)}}$$

$$F_c = \frac{321 \times 10^3 (\%C)}{GCV \text{ (English units)}}$$

- (i) ~~H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using A.S.T.M. method D3178-74 or D3176 (solid fuels), or computed from results using A.S.T.M. methods D1137-53(75), D1945-64(76), or D1946-77 (gaseous fuels) as applicable.~~
- (ii) ~~GCV is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted, determined by the A.S.T.M. test methods D-2015-77 for solid fuels and D-1826-77 for gaseous fuels as applicable.~~
- (iii) ~~For affected facilities which fire both fossil fuels and nonfossil fuels, the F or F_c value shall be subject to the Technical Secretary's approval.~~
6. ~~For affected facilities firing combinations of fossil fuels or fossil fuels and wood residue, the F or F_c factors determined by part (f)4. or (f)5. of this paragraph shall be prorated in accordance with the applicable formula as follows:~~

$$F = \sum_{i=1}^n X_i F_i \text{ or } F_c = \sum_{i=1}^n X_i (F_c)_i$$

where:

X_i = ~~the fraction of total heat input derived from each type of fuel (e.g. natural gas, bituminous coal, wood residue, etc.)~~

F_i or $(F_c)_i$ = ~~the applicable F or F_c factor for each fuel type determined in accordance with parts (f)4. and (f)5. of this paragraph.~~

n = ~~the number of fuels being burned in combination~~

- (g) ~~For the purpose of reports required under 1200-3-16-.01(7)(c), periods of excess emissions that shall be reported are defined as follows:~~

4. ~~Opacity.~~

- (i) ~~For units defined in part (1)(a)1. of this rule, the Technical Secretary may specify any level he wishes so long as the level constitutes a violation under part (3)(a)2. of this rule.~~

(ii) ~~For units defined in part (1)(a)2. of this rule, excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported.~~

2. ~~Sulfur dioxide. Excess emissions for affected facilities are defined as:~~

(i) ~~Any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under paragraph (4) of this rule.~~

3. ~~Nitrogen oxides. Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under paragraph (5) of this rule.~~

(7) ~~Test methods and procedures.~~

(a) ~~The Reference Methods in 1200-3-16-.01(5)(g) except as provided in 1200-3-16-.01(5)(b) shall be used to determine compliance with the standards as prescribed in Paragraphs (3), (4), and (5) of this rule as follows:~~

1. ~~Method 1 for selection of sampling site and sample traverses.~~

2. ~~Method 3 for gas analysis to be used when applying Reference Methods 5, 6, and 7.~~

3. ~~Method 5 for concentration of particulate matter and the associated moisture content.~~

4. ~~Method 6 for concentration of SO₂. Method 6A may be used whenever methods 6 and 3 data are used to determine the SO₂ emission on rate in ng/J, and~~

5. ~~Method 7 for concentration of NO_x.~~

(b) ~~For Method 5, Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least 60 minutes and the minimum sampling volume shall be 0.85 dscm (30 dscf) except that smaller sampling times or volumes, when necessitated by process variables or other factors, may be approved by the Technical Secretary. The probe and filter holder heating systems in the sampling train shall be set to provide a gas temperature of 160 ± 14°C (320 ± 25°F).~~

(c) ~~For Methods 6 and 7, the sampling site shall be the same as that selected for Method 5. The sampling point in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28 ft.). For Method 6, the sample shall be extracted at a rate proportional to the gas velocity at the sampling point.~~

(d) ~~For Method 6, the minimum sampling time shall be 20 minutes and the minimum sampling volume 0.02 dscm (0.71 dscf) for each sample. The arithmetic mean of two samples shall constitute one run. Samples shall be taken at approximately 30-minute intervals.~~

(e) ~~For Method 7, each run shall consist of at least four grab samples taken at approximately 15-minute intervals. The arithmetic mean of the samples shall constitute the run value.~~

(f) ~~For each run using the methods specified by parts (a)3., (a)4., and (a)5. of this paragraph, the emissions expressed in ng/J (lb/million Btu) shall be determined by the following procedure:~~

$$E = CF \left[\frac{(20.9)}{(20.9 - \%O_2)} \right]$$

where:

1. ~~E~~ = pollutant emission ng/J (lb/million Btu).
2. ~~C~~ = pollutant concentration, ng/dscm (lb/dscf), determined by Method 5, 6, or 7.
3. ~~Percent O₂~~ = oxygen content by volume (expressed as percent), dry basis.
 - ~~Percent oxygen shall be determined by using the integrated or~~
 - ~~grab sampling and analysis procedures of Method 3 as~~
 - ~~applicable.~~

The sample shall be obtained as follows:

- (i) ~~For determination of sulfur dioxide and nitrogen oxides emissions, the oxygen sample shall be obtained simultaneously at the same point in the duct as used to obtain the samples for Methods 6 and 7 determinations, respectively (subparagraph (7) (c) of this rule). For Method 7, the oxygen sample shall be obtained using the grab sampling and analysis procedures of Method 3.~~
- (ii) ~~For determination of particulate emissions, the oxygen sample shall be obtained simultaneously by traversing the duct at the same sampling location used for each run of Method 5 under subparagraph (b) of this paragraph. Method 1 shall be used for selection of the number of traverse points except that no more than 12 sample points are required.~~

4. ~~F~~ = a factor as determined in parts (f) 4., 5., or 6. of paragraph (6) of this rule.

- (g) ~~When combinations of fossil fuels or fossil fuel and wood residue are fired, the heat input, expressed in watts (Btu/hr), is determined during each testing period by multiplying the gross calorific value of each fuel fired (in J/kg or Btu/lb) by the rate of each fuel burned (in kg/sec or lb/hr). Gross calorific values are determined in accordance with A.S.T.M. methods D2015-77 (solid fuels), D240-76 (liquid fuels), or D1826-77 (gaseous fuels) as applicable. The method used to determine calorific value of wood residue must be approved by the Technical Secretary. The owner or operator shall determine the rate of fuels burned during each testing period by suitable methods and shall confirm the rate by a material balance over the steam generation system.~~

Authority: T.C.A. §§ 68-201-101 et seq. and 4-5-201 et seq.

Rule 1200-03-16-.59 Industrial Commercial-Institutional Steam Generating Units is amended by deleting it in its entirety and replacing it with the following so that, as amended, the rule shall read as follows:

1200-03-16-.59 Industrial Commercial-Institutional Steam Generating Units

(1) Applicability and Definition of Affected Facility

- (a) The affected facility to which this rule applies is each industrial-commercial-institutional steam generating unit for which construction, modification, or reconstruction is commenced after November 6, 1988 and which has a heat input capacity from fuels combusted in the steam generating unit of more than 29 MW (100 million Btu/hour), ~~except as provided under subparagraph (b) through (f) of this paragraph.~~
- (b) ~~Coal-fired steam generating units meeting both the applicability requirements under this rule and the applicability requirements for rule 1200-3-16-.02 are subject to the particulate matter and nitrogen oxides standards under this rule and the sulfur dioxide standards under 1200-3-16-.02(4). Reserved~~
- (c) ~~Oil-fired steam generating units meeting both the applicability requirements under this rule and the applicability requirements for rule 1200-3-16-.02 are subject to the nitrogen oxides standards under this rule and the sulfur dioxide and particulate matter standards under rule 1200-3-16-.02. Reserved~~

- (d) ~~Steam generating units meeting the applicability requirements under this rule and the applicability requirements under rule 1200-3-16-.09 are subject to the particulate matter and nitrogen oxides standards under this rule and the sulfur dioxide standards under rule 1200-3-16-.09. Reserved~~
 - (e) ~~Steam generating units meeting both the applicability requirements under this rule and the applicability requirements under rule 1200-3-16-.04 are subject to the nitrogen oxides and particulate matter standards under this rule. Reserved~~
 - (f) ~~Steam generating units meeting the applicability requirements under rule 1200-3-16-.03 are not subject to this rule. Reserved~~
 - (g) ~~Any affected facility meeting the applicability requirements of 1200-03-16-59(4) subparagraph (a) of this paragraph commencing construction, modification, or reconstruction after November 6, 1988 is not subject to rule Rule 1200-03-16-.02.~~
- (2) Definitions. As used in this rule, all terms not defined herein shall have the meaning given them in 1200-3-16-.01(4). Reserved
- (a) ~~“Annual capacity factor” means the ratio between the actual heat input to a steam generating unit from the fuels listed in subparagraph (4)(a) or (5)(a) of this rule, as applicable, during a calendar year and the potential heat input to the steam generating unit from all fuels had it been operated for 8,760 hours at the maximum design heat input capacity.~~
 - (b) ~~“Byproduct/waste” means any liquid or gaseous substance produced at chemical manufacturing plants or petroleum refineries, except natural gas, distillate oil, or residual oil, which is combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purposes of this rule.~~
 - (c) ~~“Chemical manufacturing plants” means industrial plants which are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.~~
 - (d) ~~“Coal” means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388-77, Standard Specification for Classification of Coals by Rank. Coal-derived synthetic fuels, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures and coal-water mixtures, are included in this definition for the purposes of this rule.~~

~~(Note: All references to ASTM in this rule refers to the American Society for Testing Materials. Copies of methods are available for purchase by writing to ASTM, 1916 Race Street, Philadelphia, PA 19103 or by writing to the Tennessee Division of Air Pollution Control, 701 Broadway, 4th Floor Customs House, Nashville, TN 37219. Be sure and specify which method is desired).~~
 - (e) ~~“Cogeneration system” means a power system which simultaneously produces both electrical (or mechanical) and thermal energy from the same energy source.~~
 - (f) ~~“Combined cycle system” means a system where a gas turbine provides exhaust gas to a heat recovery steam generating unit.~~
 - (g) ~~“Distillate oil” means fuel oils which contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oils number 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils.~~
 - (h) ~~“Duct burner” means a device which combusts fuel and which is placed in the exhaust duct of a stationary gas turbine to allow the firing of additional fuel before the exhaust gas enters a heat recovery steam generating unit.~~
 - (i) ~~“Legally enforceable” means all limitations and conditions which are enforceable by the Technical Secretary and the EPA administrator, including those under this Division 1200-3 and the State~~

Implementation Plan, and any permit requirements established pursuant to this rule.

- (j) ~~“Fluidized bed combustion steam generating unit” means a device wherein fuel and solid sorbent are distributed onto or into a bed, or series of beds, of aggregate for combustion and these materials together with solid products of combustion are forced upward in the device by the flow of combustion air and the gaseous products of combustion.~~
- (k) ~~“Full capacity” means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.~~
- (l) ~~“Heat input” means heat derived from combustion of fuel in a steam generating unit and does not include the heat input from preheated combustion air, recirculated flue gases, or gas turbine exhaust gases.~~
- (m) ~~“Heat release rate” means the steam generating unit design heat input capacity (in MW or Btu/hour) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection-pass tubes.~~
- (n) ~~“Heat transfer medium” means any material which is used to transfer heat from one point to another point.~~
- (o) ~~“High heat release rate” means a heat release rate greater than 730,000 J/sec m³ (70,000 Btu/hour ft³).~~
- (p) ~~“Lignite” means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in ASTM D388-77, Standard Specification for Classification of Coals by Rank.~~
- (q) ~~“Low heat release rate” means a heat release rate of 730,000 J/sec m³ (70,000 Btu/hour ft³) or less.~~
- (r) ~~“Mass-feed stoker steam generating unit” means a steam generating unit where solid fuel is introduced directly into a retort or is fed directly onto a grate where it is combusted.~~
- (s) ~~“Maximum heat input capacity” means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.~~
- (t) ~~“Municipal type solid waste” means refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as glass and rock.~~
- (u) ~~“Natural gas” means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth’s surface, of which the principal hydrocarbon constituent is methane.~~
- (v) ~~“Oil” means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.~~
- (w) ~~“Petroleum refinery” means industrial plants which are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.~~
- (x) ~~“Process heater” means a device which is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.~~
- (y) ~~“Pulverized coal-fired steam generating unit” means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units.~~

- (z) ~~“Residual oil” means crude oil, fuel oils number 1 and 2 which have a nitrogen content of greater than 0.05 weight percent, and all fuel oils number 4, 5 and 6 as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils.~~
- (aa) ~~“Spreader-stoker steam generating unit” means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.~~
- (bb) ~~“Steam generating unit” means a device which combusts any fuel or byproduct/waste to produce steam or to heat water or any other heat transfer medium. This term includes any municipal-type waste incinerator with a heat recovery steam generating unit or any steam generating unit which combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters.~~
- (cc) ~~“Steam generating unit operating day” means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.~~
- (dd) ~~“Wet scrubber system” means any emission control device which mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter or sulfur dioxide.~~
- (ee) ~~“Wood” means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including, but not limited to, sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.~~

(3) ~~Reserved~~

(4) ~~Standard for Particulate Matter~~

(a) ~~On and after the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, no owner or operator of an affected facility which combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases which contain particulate matter in excess of the following emission limits:~~

1. ~~22 nanograms per joule (0.05 lb/million Btu) heat input:~~

(i) ~~If the affected facility combusts only coal, or~~

(ii) ~~If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.~~

2. ~~43 nanograms per joule (0.10 lb/million Btu) heat input if the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels greater than 10 percent (0.10) and is subject to a legally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.~~

3. ~~86 nanograms per joule (0.20 lb/million Btu) heat input if the affected facility combusts coal or coal and other fuels and~~

(i) ~~Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less;~~

(ii) ~~Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less;~~

(iii) ~~Has a legally enforceable requirement limiting operation of the affected facility to an annual capacity factor 30 percent (0.30) or less for coal or coal and other solid fuels, and~~

- (iv) ~~Construction of the affected facility commenced after June 19, 1984 and before November 6, 1988.~~
- (b) ~~On or after the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, no owner or operator of an affected facility which combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases which contain particulate matter in excess of the following emission limits:~~
1. ~~43 nanograms per joule (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.~~
 2. ~~86 nanograms per joule (0.20 lb/million Btu) heat input if~~
 - (i) ~~The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood,~~
 - (ii) ~~Is subject to a legally enforceable requirement limiting operation of the affected facility to an annual capacity factor 30 percent (0.30) or less for wood, and~~
 - (iii) ~~Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less.~~
- (c) ~~On and after the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, no owner or operator of an affected facility which combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases which contain particulate matter in excess of the following emission limits:~~
1. ~~43 nanograms per joule (0.10 lb/million Btu) heat input:~~
 - (i) ~~If the affected facility combusts only municipal-type solid waste, or~~
 - (ii) ~~If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.~~
 2. ~~86 nanograms per joule (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and~~
 - (i) ~~Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less,~~
 - (ii) ~~Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,~~
 - (iii) ~~Has a legally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and~~
 - (iv) ~~Construction of the affected facility commenced after June 19, 1984 but before November 6, 1988.~~
- (d) ~~For the purposes of this paragraph, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum design heat input capacity.~~
- (e) ~~On and after the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, no owner or operator of an affected facility subject to the particulate matter emission limits under subparagraphs (a), (b), or~~

(c) of this paragraph shall cause to be discharged into the atmosphere any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(5) Standard for Nitrogen Oxides

(a) On and after the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, no owner or operator of an affected facility subject to the provisions of this paragraph which combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of the following emission limits:

(Figures in parentheses represent lb/million Btu heat input)

Fuel/Steam generating unit type	Nitrogen Oxide ¹
(1) Natural gas and distillate oil, except (4):	
(i) Low heat release rate	43(0.10)
(ii) High heat release rate	86(0.20)
(2) Residual oil:	
(i) Low heat release rate	130(0.30)
(ii) High heat release rate	170(0.40)
(3) Coal:	
(i) Mass-feed stoker	210(0.50)
(ii) Spreader stoker and fluidized bed combustion	260(0.60)
(iii) Pulverized coal	300(0.70)
(iv) Lignite, except (v)	260(0.60)
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340(0.80)
(vi) Coal-derived synthetic fuels	210(0.50)
(4) Duct burner used in a combined cycle system:	
(i) Natural gas and distillate oil	86(0.20)
(ii) Residual oil	170(0.40)

¹Emission limits nanograms per joule heat input.

1. 86 nanograms per joule heat input (0.20 lb per million Btu) derived from gaseous fossil fuel.

2. 130 nanograms per joule heat input (0.30 lb per million Btu) derived from liquid fossil fuel, liquid fossil fuel and wood residue, or gaseous fossil fuel and wood residue.

(b) On and after the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, no owner or operator of an affected facility which simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of a limit determined by use of the following formula:

$$E_{NO_x} = \frac{[(EL_{go} H_{go}) + (EL_{ro} H_{ro}) + (EL_c H_c)]}{H_t}$$

Where:

ENOX is the nitrogen oxides emission limit,

~~EL_{go} is the appropriate emission limit from subparagraph (a)(1) of this paragraph for combustion of natural gas or distillate oil,~~

~~H_{go} is the heat input from combustion of natural gas or distillate oil,~~

~~EL_{ro} is the appropriate emission limit from subparagraph (a)(2) of this paragraph for combustion of residual oil,~~

~~H_{ro} is the heat input from combustion of residual oil,~~

~~EL_c is the appropriate emission limit from subparagraph (a)(3) of this paragraph for combustion of coal,~~

~~H_c is the heat input from combustion of coal, and~~

~~H_t is the total heat input to the steam generating unit from combustion of coal, oil, and natural gas.~~

~~(c) On and after the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever comes first, no owner or operator of an affected facility which simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, and wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any gases which contain nitrogen oxides in excess of the emission limit for the coal or oil, or mixture of these fuels with natural gas combusted in the affected facility, as determined pursuant to subparagraph (a) or (b) of this paragraph, unless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a legally enforceable requirement which limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less of coal, oil, or a mixture of these fuels with natural gas.~~

~~(d) On and after the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, no owner or operator of an affected facility which simultaneously combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of 130 nanograms per joule (0.30 lb/million Btu) heat input unless the affected facility has an annual capacity factor for natural gas of 10 percent or less and is subject to a legally enforceable requirement which limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.~~

~~(e) On and after the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, no owner or operator of an affected facility which simultaneously combusts coal, oil, or natural gas with byproduct/wastes shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of an emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a legally enforceable requirement which limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:~~

$$E_{NO_x} = \frac{[(EL_{go} H_{go}) + (EL_{ro} H_{ro}) + (EL_c H_c)]}{H_t}$$

~~Where:~~

~~EN_{ox} is the nitrogen oxides emission limit,~~

~~EL_{go} is the appropriate emission limit from subparagraph (a)(1) of this paragraph for combustion of natural gas or distillate oil,~~

~~H_{go} is the heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste.~~

~~EL_{ro} is the appropriate emission limit from subparagraph (a)(2) of this paragraph for combustion of residual oil,~~

~~H_{ro} is the heat input from combustion of residual oil and/or liquid byproduct/waste.~~

~~EL_c is the appropriate emission limit from subparagraph (a)(3) of this paragraph for combustion of coal.~~

~~H_c is the heat input from combustion of coal, and~~

~~H_t is the total heat input to the steam generating unit from combustion of natural gas, oil, coal, and byproduct/waste.~~

~~(f) Any owner or operator of an affected facility which combusts byproduct/waste with either natural gas or oil may petition the Technical Secretary within 180 days of the initial startup of the affected facility to establish a nitrogen oxides emission limit which shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include sufficient and appropriate data, as determined by the Technical Secretary, such as nitrogen oxides emissions from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Technical Secretary to confirm that the affected facility is unable to comply with the emission limits in subparagraph (e) of this paragraph and to determine the appropriate emission limit for the affected facility.~~

~~1. Any owner or operator of an affected facility petitioning for a facility-specific nitrogen oxides emission limit pursuant to this section shall:~~

~~(i) Demonstrate compliance with the emission limits for natural gas and distillate oil in subparagraph (a)1 or for residual oil in subparagraph (a)2 of this paragraph, as appropriate, by conducting a 30-day performance test as provided in subparagraph (6)(e) of this rule. During the performance test only natural gas, distillate oil, or residual oil shall be combusted in the affected facility; and~~

~~(ii) Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in subparagraph (a)1 or for residual oil in subparagraph (a)2 of this paragraph, as appropriate, when gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the same technological system of emission reduction applied when demonstrating compliance under subpart (i) of this part.~~

~~2. The nitrogen oxides emission limits for natural gas or distillate oil in part (a)1 or for residual oil in part (a)2 of this paragraph, as appropriate, shall be applicable to the affected facility until and unless the petition is approved by the Technical Secretary. If the petition is approved by the Technical Secretary, a facility specific nitrogen oxides emission limit will be established at the nitrogen oxides emission level achievable when the affected facility is combusting coal, oil, natural gas and byproduct/waste in a manner which the Technical Secretary determines to be consistent with minimizing nitrogen oxides emissions.~~

~~(6) Reserved~~

~~(7) Compliance and Performance Testing for Particulate Matter and Nitrogen Oxides Reserved~~

~~(a) The particulate matter emission standards and opacity limits under paragraph (4) of this rule apply at all times except during periods of startup, shutdown, or malfunction. The nitrogen oxides emission standards under paragraph (5) of this rule apply at all times.~~

- ~~(b) Compliance with the particulate matter emission standards under paragraph (4) of this rule shall be determined through performance testing as described in subparagraph (d) of this paragraph.~~
- ~~(c) Compliance with the nitrogen oxides emission standards under paragraph (5) of this rule shall be determined through performance testing as described in subparagraph (e) or (f) of this paragraph.~~
- ~~(d) The following procedures and reference methods are used to determine compliance with the standards for particulate matter emissions under paragraph (4) of this rule.~~
- ~~1. Method 3 is used for gas analysis when applying Method 5, Method 5B, or Method 17.~~
 - ~~2. Method 5, Method 5B, or Method 17 shall be used to measure the concentration of particulate matter as follows:
 - ~~(i) Method 5 shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and~~
 - ~~(ii) Method 17 may be used at facilities with or without wet scrubber systems provided that the stack gas temperature does not exceed a temperature of 160°C (320°F). The procedures of sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if it is used after a wet FGD system. Do not use Method 17 after wet FGD systems if the effluent is saturated or laden with water droplets.~~
 - ~~(iii) Method 5B is to be used only after wet FGD systems.~~~~
 - ~~3. Reference Method 1 is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Technical Secretary or when necessitated by process variables or other factors.~~
 - ~~4. For Reference Method 5, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160°C (320°F).~~
 - ~~5. For determination of particulate emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Method 5, Method 5B, or Method 17 by traversing the duct at the sampling location.~~
 - ~~6. For each run using Method 5, Method 5B, or Method 17, the emission rate expressed in nanograms per joule heat input is determined using:
 - ~~(i) The oxygen or carbon dioxide measurements and particulate matter measurements obtained under this section,~~
 - ~~(ii) The dry basis Fc factor, and~~
 - ~~(iii) The dry basis emission rate calculation procedure contained in Reference Method 19 (as specified in 1200-3-16-.01(5)(g)19).~~~~
 - ~~7. Reference Method 9 is used for determining the opacity of stack emissions.~~
- ~~(e) To determine compliance with the emission limits for nitrogen oxides required under paragraph (5) of this rule, the owner or operator of an affected facility shall conduct the performance test as required under 1200-3-16-.01(5) using the continuous system for monitoring nitrogen oxides under paragraph (9) of this rule.~~
- ~~1. For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission standards under paragraph (5) of this rule. The 30-day average emission rate is~~

calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

2. ~~Following the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, the owner or operator of an affected facility which fires coal or which fires residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the nitrogen oxides emission standards under paragraph (5) of this rule on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam-generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam-generating unit operating days.~~
 3. ~~Following the date on which the initial performance test is completed or is required to be completed under 1200-3-16-.01(5), whichever date comes first, the owner or operator of an affected facility which has a heat input capacity greater than 73 MW (250 million Btu/hour) and which fires natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the nitrogen oxides standards under paragraph (5) of this rule on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam-generating unit operating day as the average of all of the hourly nitrogen oxide emission data for the preceding 30 steam-generating unit operating days.~~
 4. ~~Following the date on which the initial performance test is completed or required to be completed under 1200-3-16-.01(5), whichever date comes first, the owner or operator of an affected facility which has a heat input capacity of 73 MW (250 million Btu/hour) or less and which fires natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the nitrogen oxides standards under paragraph (5) of this rule through the use of a 30-day performance test when requested by EPA. During periods when performance tests are not requested by EPA, nitrogen oxides emissions data collected pursuant to parts 1 or 2 of subparagraph (9)(g) of this rule are used to calculate a 30-day rolling average emission rate on a daily basis and to prepare excess emission reports, but will not be used to determine compliance with the nitrogen oxides emission standards. A new 30-day rolling average emission rate is calculated each steam-generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam-generating unit operating days.~~
 5. ~~If the owner or operator of an affected facility which fires residual oil does not sample and analyze the residual oil for nitrogen content, as specified in subparagraph (10)(e) of this rule, the requirements of part (c)3. of this paragraph apply and the provisions of part (e)4. of this paragraph are inapplicable.~~
- (f) ~~To determine compliance with the emission limit for nitrogen oxides required by part (5)(a)4. of this rule for duct burners used in combined cycle systems, the owner or operator of an affected facility shall conduct the performance test required under 1200-3-16-.01(5) using the nitrogen oxides and oxygen measurement procedures in Reference Method 20. During the performance test, one sampling site shall be located as close as practical to the exhaust of the turbine, as provided by in Reference Method 20. A second sampling site shall be located at the outlet to the steam-generating unit. Measurements of nitrogen oxides and oxygen shall be taken at these two sampling sites simultaneously during the performance test. The nitrogen oxides emission rate from the combined cycle system shall be calculated by subtracting the nitrogen oxides emission rate measured at the sampling site at the outlet from the turbine from the nitrogen oxides emission rate measured at the sampling site at the outlet from the steam-generating unit.~~

(8) ~~Reserved~~

(9) ~~Emission Monitoring for Particulate Matter and Nitrogen Oxides~~

(a) ~~The owner or operator of an affected facility subject to the opacity standard under paragraph (4)~~

of this rule shall install, calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system. Units that burn only oil that contains no more than 0.3 weight percent sulfur or liquid or gaseous fuels with potential sulfur dioxide emission rates of 0.32 lb/MMBtu heat input or less are not required to conduct opacity or sulfur dioxide emissions monitoring if they maintain fuel supplier certifications of the sulfur content of the fuels burned.

- (b) Except as provided in subparagraphs (g), (h), and (i) of this paragraph, the owner or operator of an affected facility subject to the nitrogen oxides standard of subparagraph (5)(a) of this rule shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.
- (c) The continuous monitoring systems required under subparagraph (b) of this paragraph shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.
- (d) The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by subparagraph (b) of this paragraph and required under 1200-3-16-.01(8)(h) shall be expressed in nanograms per joule or lb/million Btu heat input and shall be used to calculate the average emission rates under paragraph (5) of this rule. The 1-hour averages shall be calculated using the data points required under 1200-3-16-.01(5)(8). At least 2 data points must be used to calculate each 1-hour average.
- (e) The procedures under rule 1200-3-16-.01(8) shall be followed for installation, evaluation, and operation of the continuous monitoring systems.
 1. For affected facilities burning coal, wood or municipal type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.
 2. For affected facilities burning coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:

Fuel	Span values for nitrogen oxides (PPM)
Natural gas	500
Oil	500
Coal	1,000
Combination	$500(x + y) + 1,000z$

Where:

x is the fraction of total heat input derived from natural gas,

y is the fraction of total heat input derived from oil, and

z is the fraction of total heat input derived from coal.

- 3. All span values computed under subparagraph (e)(2) of this paragraph for burning combinations of regulated fuels are rounded to the nearest 500 ppm.
- (f) When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be

~~obtained by using standby monitoring systems, Reference Method 7, Reference Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.~~

- ~~(g) The owner or operator of an affected facility which has a heat input capacity of 73 MW (250 million Btu/hour) or less, and which has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:~~
- ~~1. Comply with the provisions of subparagraphs (b), (c), (d), and (f) and parts (e)2., (e)3., of this paragraph, or~~
 - ~~2. Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to subparagraph (10)(c) of this rule.~~
- ~~(h) The owner or operator of an affected facility which is subject to the nitrogen oxides standards of part (5)(a)4. of this rule is not required to install or operate a continuous monitoring system to measure nitrogen oxides emissions.~~
- ~~(i) The owner or operator of an affected facility described below is not required to install or operate a continuous in-stack monitoring system for nitrogen oxides provided that the following criteria are met:~~
- ~~1. The facility combusts, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;~~
 - ~~2. The facility has a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and~~
 - ~~3. The facility is subject to a Federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less.~~

~~(10) Reporting and Record Keeping Requirements~~

- ~~(a) The owner or operator of each affected facility shall submit notification of the date of initial startup. This notification shall include:~~
- ~~1. Identification of the fuels to be combusted in the affected facility, and~~
 - ~~2. The design heat input capacity and, if applicable, a copy of any legally enforceable requirement which limits the annual capacity factor for any fuel or mixture of fuels listed in paragraph (4), or for any fuel or mixture of fuels listed in paragraph (5) of this rule.~~
 - ~~3. (Reserved)~~
 - ~~4. (Reserved)~~
- ~~(b) For facilities subject to the particulate matter and nitrogen oxides emission limits under paragraph (4) and (5) of this rule, the performance test data from the initial performance test and the performance evaluation of the continuous emission monitors shall be submitted to the Technical Secretary by the owner or operator of the affected facility.~~
- ~~(c) The owner or operator of each affected facility subject to the nitrogen oxides standard of paragraph(5) of this rule who seeks to demonstrate compliance with those standards through the monitoring of steam generating until operating conditions pursuant to the provisions of part (9)(g)2. of this rule shall submit to the Technical Secretary for approval a plan which identifies the~~

~~operating conditions to be monitored under part (9)(g)2. of this rule and the records to be maintained under subparagraph (j) of this paragraph. This plan shall be submitted to the Technical Secretary for approval within 360 days of the initial startup of the affected facility. The plan shall:~~

- ~~1. Identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxides emission rates (i.e., nanograms per joule or pounds per million Btu heat input). Steam generating unit operating conditions include, but are not limited to, degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);~~
 - ~~2. Include the data and information which the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions;~~
 - ~~3. Identify how these operating conditions, including steam generating unit load, will be monitored under subparagraph (9)(g) of this rule on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under subparagraph (10)(j) of this rule. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan.~~
- ~~(d) The owner or operator of an affected facility shall record and maintain records of the amounts of all fuels fired during each day and calculate the annual capacity factor for coal, oil, natural gas, wood, and municipal-type solid waste for each calendar quarter.~~
- ~~(e) For affected facilities which fire residual oil having a nitrogen content of 0.3 weight percent or less; have heat input capacities of 73 MW (250 million Btu/hour) or less; and monitor nitrogen oxides emissions or steam generating unit operating conditions pursuant to subparagraph (9)(g) of this rule, the owner or operator shall maintain records of the nitrogen content of the oil fired in the affected facility and calculate the average fuel nitrogen content on a per calendar quarter basis. The nitrogen content shall be determined using ASTM Method D3431-80, Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons, or fuel specification data obtained from fuel suppliers. If residual oil blends are being fired, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.~~
- ~~(f) For facilities subject to the opacity standard under paragraph (4) of this rule, the owner or operator shall maintain records of opacity.~~
- ~~(g) For facilities subject to nitrogen oxides standards under paragraph (5) of this rule, the owner or operator shall maintain records of the following information for each steam generating unit operating day:~~
- ~~1. Calendar date.~~
 - ~~2. The average hourly nitrogen oxides emission rates (nanograms per joule or lb per million Btu heat input) measured or predicted.~~
 - ~~3. The 30 day average nitrogen oxide emission rates (nanogram per joule or lb per million Btu heat input) calculated at the end of the steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.~~
 - ~~4. Identification of the steam generating unit operating days when the average nitrogen oxide emission rates are in excess of the nitrogen oxides emissions standards under paragraph (5) of this rule with the reasons for such excess emissions as well as a description of corrective actions taken.~~

5. ~~Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.~~
 6. ~~Identification of the times when emissions data have been excluded from the calculation of average emission rates and the reasons for excluding the data.~~
 7. ~~Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.~~
 8. ~~Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.~~
 9. ~~Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.~~
- (h) ~~The owner or operator of any affected facility in any category listed below in subparagraphs (h)1. and (h)2. of this paragraph is required to submit excess emission reports for any calendar quarter during which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period.~~
1. ~~Any affected facility subject to the opacity standards under subparagraph (4)(e) of this rule or to the operating parameter monitoring requirements under subpart (i) of rule 1200-3-16-.01(8).~~
 2. ~~Any affected facility which is subject to the nitrogen oxides standard of paragraph (4) of this rule; fires natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 percent or less; and has a heat input capacity of 73 MW (250 million Btu/hour) or less, and is required to monitor nitrogen oxides emissions on a continuous basis pursuant to part (9)(g)1. of this rule or steam generating unit operating conditions pursuant to part (9)(g)2. of this rule.~~
 3. ~~For the purpose of paragraph (4) of this rule, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under subparagraph (4)(e) of this rule.~~
 4. ~~For purposes of part (9)(g)1. of this rule, excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined pursuant to subparagraph (7)(e) of this rule, which exceeds the applicable emission limits in paragraph (5) of this rule.~~
- (i) ~~The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides pursuant to paragraph (9) of this rule shall submit a quarterly report containing the information recorded pursuant to subparagraph (b) of this paragraph.~~
- (j) ~~(Reserved)~~
- (k) ~~(Reserved)~~
- (l) ~~(Reserved)~~
- (m) ~~All records required under this paragraph shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.~~

Authority: T.C.A. §§ 68-201-101 et seq. and 4-5-201 et seq.

* If a roll-call vote was necessary, the vote by the Agency on these rulemaking hearing rules was as follows:

Board Member	Aye	No	Abstain	Absent	Signature (if required)
Vacant Working in Municipal Government					
Dr. John Benitez Licensed Physician with experience in health effects of air pollutants	X				
Karen Cisler Environmental Interests	X				
Dr. Wayne T. Davis Conservation Interests	X				
Stephen Gossett Working for Industry with technical experience	X				
Dr. Shawn A. Hawkins Working in field related to Agriculture or Conservation				X	
Richard Holland Working for Industry with technical experience	X				
Chris Moore Working in management in Private Manufacturing	X				
Michelle Owenby Commissioner's Designee, Dept. of Environment and Conservation	X				
John Roberts Small Generator of Air Pollution representing Automotive Interests				X	
Amy Spann Registered Professional Engineer	X				
Larry Waters County Mayor	X				
Jimmy West Commissioner's Designee, Dept. of Economic and Community Development	X				
Vacant Involved with Institution of Higher Learning on air pollution evaluation and control					

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Air Pollution Control Board on 07/08/2015, and is in compliance with the provisions of T.C.A. § 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: 10/09/13

Rulemaking Hearing(s) Conducted on: (add more dates). 12/03/13

Date: _____

Signature: _____

Name of Officer: Barry R. Stephens

Title of Officer: Technical Secretary

Subscribed and sworn to before me on: _____

Notary Public Signature: _____

My commission expires on: _____

All rulemaking hearing rules provided for herein have been examined by the Attorney General and Reporter of the State of Tennessee and are approved as to legality pursuant to the provisions of the Administrative Procedures Act, Tennessee Code Annotated, Title 4, Chapter 5.

Herbert H. Slatery III
Attorney General and Reporter

Date

Department of State Use Only

Filed with the Department of State on: _____

Effective on: _____

Tre Hargett
Secretary of State

Public Hearing Comments

One copy of a document containing responses to comments made at the public hearing must accompany the filing pursuant to T.C.A. § 4-5-222. Agencies shall include only their responses to public hearing comments, which can be summarized. No letters of inquiry from parties questioning the rule will be accepted. When no comments are received at the public hearing, the agency need only draft a memorandum stating such and include it with the Rulemaking Hearing Rule filing. Minutes of the meeting will not be accepted. Transcripts are not acceptable.

There were no verbal or written comments received at the public hearing or during the comment period.

Regulatory Flexibility Addendum

Pursuant to T.C.A. §§ 4-5-401 through 4-5-404, prior to initiating the rule making process as described in T.C.A. § 4-5-202(a)(3) and T.C.A. § 4-5-202(a), all agencies shall conduct a review of whether a proposed rule or rule affects small businesses.

- (1) The type or types of small business and an identification and estimate of the number of small businesses subject to the proposed rule that would bear the cost of, or directly benefit from the proposed rule.

The amendments to Rules 1200-03-16-.02 and 1200-03-16-.59 do not impact any small businesses. The general effect is beneficial in that businesses would not be subject to obsolete state regulations in addition to the current federal regulations.

- (2) The projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed rule, including the type of professional skills necessary for preparation of the report or record.

None.

- (3) A statement of the probable effect on impacted small businesses and consumers.

The Board is not aware of any affected facility owned by an entity classified as a small business. The amendments to Rules 1200-03-16-.02 and 1200-03-16-.59 could prevent owners of affected facilities from being subject to both obsolete state and current federal regulations. There would be no effect on consumers.

- (4) A description of any less burdensome, less intrusive or less costly alternative methods of achieving the purpose and objectives of the proposed rule that may exist, and to what extent the alternative means might be less burdensome to small business.

None.

- (5) A comparison of the proposed rule with any federal or state counterparts.

The provisions of Chapter 1200-03-16 are the state equivalent of federal regulations contained in 40 CFR Part 60. The amendments to Rules 1200-03-16-.02 and 1200-03-16-.59 serve to allow the Board to avoid requiring subject facilities to be subject to both obsolete state regulations and their current federal equivalents.

- (6) Analysis of the effect of the possible exemption of small businesses from all or any part of the requirements contained in the proposed rule.

Not applicable.

Impact on Local Governments

Pursuant to T.C.A. §§ 4-5-220 and 4-5-228 “any rule proposed to be promulgated shall state in a simple declarative sentence, without additional comments on the merits of the policy of the rules or regulation, whether the rule or regulation may have a projected impact on local governments.” (See Public Chapter Number 1070 (<http://state.tn.us/sos/acts/106/pub/pc1070.pdf>) of the 2010 Session of the General Assembly)

The Department anticipates that this amended rule will not have a financial impact on local governments.

Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to T.C.A. § 4-5-226(i)(1).

- (A) A brief summary of the rule and a description of all relevant changes in previous regulations effectuated by such rule;

Rule 1200-03-16-.02 Fossil Fuel-Fired Steam Generating for which Construction is Commenced After April 3, 1973, and Rule 1200-03-16-.59 Industrial-Commercial-Institutional Steam Generating Units are being amended by deleting paragraphs and subparagraphs of each rule, as they have been made obsolete by revisions to the equivalent federal regulations. Certain current language of each rule is being retained to preserve the validity of references set forth in other chapters of Division 1200-03.

- (B) A citation to and brief description of any federal law or regulation or any state law or regulation mandating promulgation of such rule or establishing guidelines relevant thereto;

Chapter 1200-03-16 is the state equivalent of the federal regulations found in Title 40, Part 60, of the Code of Federal Regulations.

- (C) Identification of persons, organizations, corporations or governmental entities most directly affected by this rule, and whether those persons, organizations, corporations or governmental entities urge adoption or rejection of this rule;

Rules 1200-03-16-.02 and 1200-03-16-.59 only affect a very small number of very large steam generating units (boilers) located in Tennessee. There were no comments concerning these proposed rule amendments.

- (D) Identification of any opinions of the attorney general and reporter or any judicial ruling that directly relates to the rule;

The Tennessee Air Pollution Control Board is not aware of any.

- (E) An estimate of the probable increase or decrease in state and local government revenues and expenditures, if any, resulting from the promulgation of this rule, and assumptions and reasoning upon which the estimate is based. An agency shall not state that the fiscal impact is minimal if the fiscal impact is more than two percent (2%) of the agency's annual budget or five hundred thousand dollars (\$500,000), whichever is less;

There is no fiscal impact resulting from these amendments.

- (F) Identification of the appropriate agency representative or representatives, possessing substantial knowledge and understanding of the rule;

Jeryl W. Stewart
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, Tennessee 37243
(615) 532-0605

- (G) Identification of the appropriate agency representative or representatives who will explain the rule at a scheduled meeting of the committees;

Emily Urban
Assistant General Counsel
Office of General Counsel

- (H) Office address, telephone number, and email address of the agency representative or representatives who will explain the rule at a scheduled meeting of the committees; and

Office of General Counsel
SS-7039 (November 2014)

Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, Tennessee 37243
(615) 532-8685
Emily.Urban@tn.gov

(I) Any additional information relevant to the rule proposed for continuation that the committee requests.

The Tennessee Air Pollution Control Board is not aware of any.