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Sequence Number: \_\_\_\_\_  
Notice ID(s): \_\_\_\_\_  
File Date: \_\_\_\_\_

# Notice of Rulemaking Hearing

Hearings will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, T.C.A. § 4-5-204. For questions and copies of the notice, contact the person listed below.

<b>Agency/Board/Commission:</b>	Air Pollution Control Board
<b>Division:</b>	Air Pollution Control
<b>Contact Person:</b>	Travis Blake
<b>Address:</b>	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15th Floor Nashville, TN 37243
<b>Phone:</b>	(615) 532-0617
<b>Email:</b>	<a href="mailto:travis.blake@tn.gov">travis.blake@tn.gov</a>

Any Individuals with disabilities who wish to participate in these proceedings (to review these filings) and may require aid to facilitate such participation should contact the following at least 10 days prior to the hearing:

<b>ADA Contact:</b>	ADA Coordinator
<b>Address:</b>	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 22nd Floor Nashville, Tennessee 37243
<b>Phone:</b>	1-866-253-5827 (toll free) or 615-532-0200 Hearing impaired callers may use the TN Relay Service 1-800-848-0298
<b>Email:</b>	<a href="mailto:Jennifer.Katzenmiller@tn.gov">Jennifer.Katzenmiller@tn.gov</a>

**Hearing Location(s)** (for additional locations, copy and paste table)

Address 1:	Conference Room 15A		
Address 2:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15th Floor		
City:	Nashville, Tennessee		
Zip:	37243		
Hearing Date :	11/03/2020		
Hearing Time:	9:30 AM	<input checked="" type="checkbox"/> CST/CDT	<input type="checkbox"/> EST/EDT

The Department of Environment and Conservation is committed to the Tennessee Pledge and reopening responsibly. All individuals planning to attend this hearing are asked to follow the current recommended guidelines for social distancing, hygiene, and wearing protective equipment when appropriate.

**Alternate Hearing Option (An electronic participation option is also available. If the In-Person Hearing is Prohibited or Otherwise Inappropriate the Hearing will be Electronic-Only)**

<b>Method 1:</b>	<p>You may also join electronically.</p> <p>Join by going to this link: <a href="https://urldefense.com/v3/https://tngov.webex.com/tngov/j.php?MTID=m3523409d4da600861e44e229e8afb48d_!!PRtDf9A!-TFztxrTx8nrR5SrDljXbs2MT9USuQ_Dvb0Nb9qtR4QgoEONngTTmmtdBOMaJInF5g\$">https://urldefense.com/v3/ https://tngov.webex.com/tngov/j.php?MTID=m3523409d4da600861e44e229e8afb48d_!!PRtDf9A!-TFztxrTx8nrR5SrDljXbs2MT9USuQ_Dvb0Nb9qtR4QgoEONngTTmmtdBOMaJInF5g\$</a></p>
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	<p><b>Meeting number (access code): 171 773 5094</b></p> <p><b>Meeting password: iSVutVN5F83</b></p>
<b>Method 2:</b>	<p><b>Join by phone</b>  <b>1-415-655-0003</b>  <b>Access code: 171 773 5094</b></p> <p><b>Global call-in numbers are available online at:</b>  <a href="#">Link for Global Call-in Numbers</a></p>

**Additional Hearing Information:**

*If it is hard for you to read, speak, or understand English, TDEC may be able to provide translation or interpretation services free of charge. Please contact Lida Warden at 615-532-0554 for more information.*

There will be a public hearing before the Technical Secretary of the Tennessee Air Pollution Control Board to consider the promulgation of amendments to the Tennessee Air Pollution Control Regulations and the State Implementation Plan (SIP) pursuant to Tenn. Code Ann. § 68-201-105. The comments received at this hearing will be presented to the Tennessee Air Pollution Control Board for its consideration in regards to the proposed regulatory amendments. The hearing will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, Tenn. Code Ann. §§ 4-5-201 et seq. and will take place in the 15<sup>th</sup> Floor Conference Room A, William R. Snodgrass Tennessee Tower, located at 312 Rosa L. Parks Avenue, Nashville, Tennessee 37243 at 9:30 AM CDT on November 3, 2020. Written comments will be included in the hearing records if received by the close of business on November 3, 2020, at the office of the Technical Secretary, Tennessee Air Pollution Control Board, William R. Snodgrass Tennessee Tower, located at 312 Rosa L. Parks Avenue 15<sup>th</sup> Floor, Nashville, Tennessee 37243. Additionally, comments may be submitted via attachments through electronic mail until the close of business on November 3, 2020. Comments may be submitted via e-mail to [Air.Pollution.Control@tn.gov](mailto:Air.Pollution.Control@tn.gov).

Any individuals with disabilities who wish to participate in these proceedings or to review these filings should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such participation. Such initial contact may be in person, by writing, telephone, or other means, and should be made no less than 10 days prior to November 3, 2020, or the date such party intends to review such filings, to allow time to provide such aid or service. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 22<sup>nd</sup> Floor, Nashville, TN 37243, (866) 253-5827. Hearing impaired callers may use the Tennessee Relay Service, (800) 848-0298.

If you have any questions about the origination of these rule changes, you may contact Travis Blake at (615) 532-0617. For complete copies of the text of the notice, please contact Travis Blake, Department of Environment and Conservation, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 15<sup>th</sup> Floor, Nashville, TN 37243 or via e-mail at [travis.blake@tn.gov](mailto:travis.blake@tn.gov).

FIRST ITEM:

Tennessee proposes to amend Chapter 1200-03-14 (Control of Sulfur Dioxide Emissions) by modifying paragraph (6) of Rule 1200-03-14-.01 (General Provisions). In general, the rule changes would:

1. Add a data completeness requirement for the two years of ambient data collected prior to termination of monitoring.
2. Add an exemption for any fuel burning installation or process emission source located in an area in which the Technical Secretary operates one or more ambient sulfur dioxide air quality monitors in the area under the influence of the source's emissions.

SECOND ITEM:

Section 110(I) of the Clean Air Act (CAA) prohibits any revision of a SIP that would interfere with attainment or maintenance of a National Ambient Air Quality Standard (NAAQS), reasonable further progress toward attainment

of a NAAQS, or any other applicable requirement of the CAA. Because Rule 1200-03-14-.01 is part of Tennessee's SIP, Tennessee is proposing a demonstration that the two changes proposed above will not contravene the requirements of CAA §110(l).

**THIRD ITEM:**

As part of this effort, Tennessee will also demonstrate to U.S. EPA that a prior change to Tennessee's SIP in 2008 (removal of Rule 1200-03-14-.01(6)(b)1, which required owners or operators petitioning the Technical Secretary to terminate ambient air quality monitoring to demonstrate that actual sulfur dioxide emissions from a fuel burning installation do not exceed 20,000 tons per year), will not have an impact on NAAQS or CAA compliance.

Specific changes are indicated in a redline/strikeout available at <http://www.tn.gov/environment/topic/ppo-air>. Tennessee's 110(l) demonstration is available at the same web address.

**Revision Type (check all that apply):**

- Amendment  
 New  
 Repeal

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

Chapter Number	Chapter Title
1200-03-14	Control of Sulfur Dioxide Emissions
Rule Number	Rule Title
1200-03-14-.01	General Provisions

Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to <https://sos.tn.gov/products/division-publications/rulemaking-guidelines>.

Chapter 1200-03-14  
Control of Sulfur Dioxide Emissions

Amendments

Paragraph (6) of Rule 1200-03-14-.01 General Provisions is amended by deleting it in its entirety and substituting instead the following:

- (6) ~~Except as otherwise allowed by subparagraph (d) of this paragraph, every~~ Every owner or operator of a fuel burning installation having a total rated capacity greater than 1,000 million ~~BTU~~ Btu per hour or of a process emission source emitting more than 1,000 tons per year of sulfur dioxide during ~~calendar year 1972 or any other~~ calendar year ~~thereafter~~ shall:
- (a) Demonstrate to the satisfaction of the Technical Secretary~~;~~ that the sulfur dioxide emitted~~,~~ either alone or in contribution to other sources~~,~~ will not interfere with attainment and maintenance of any primary or secondary air quality standard. Any such demonstration must be based on the allowable emission rate specified in the source's construction or operating permit(s) and the source's maximum rated capacity.
  - (b) Install and maintain air quality sensors to monitor attainment and maintenance of ambient air quality standards in the areas influenced by the emissions from such installation. ~~Such Monitoring shall be done performed and results of such monitoring shall be provided~~ in the manner ~~and form directed by prescribed by~~ the Technical Secretary. ~~Results of such monitoring shall be provided to the Technical Secretary in the manner and form as he shall direct.~~ Owners or operators may petition and be granted permission by the Technical Secretary to terminate ambient air quality monitoring provided two complete calendar years of air quality data has been generated in the area under the influence of the source's emissions ~~to verify compliance with the Tennessee Ambient Air Quality Standards~~. Petitions may be granted only if the conditions of parts 1, 2, and 3 below of this subparagraph are met. For the purpose of this paragraph, "complete" shall mean that all data were collected in accordance with the requirements for data collection, completeness, and quality assurance requirements specified in the source's Title V Operating Permit.
    - 1. Reserved.
    - 2. The source must be located in an attainment area and must not significantly impact a sulfur dioxide nonattainment area.
    - 3. Measurements of air quality in the vicinity of the source demonstrate that ambient sulfur dioxide levels do not exceed 75 percent of the Tennessee Ambient Air Quality Standards.
  - (c) ~~Reserved. All calculations performed pursuant to demonstration required by rule .01(6) shall assume that the process emission source and fuel burning installation is operating at a maximum rated capacity.~~
  - (d) The requirements of subparagraph (b) of this paragraph shall not apply to any fuel burning installation or process emission source located in an area in which the Technical Secretary operates one or more ambient sulfur dioxide air quality monitors in the area under the influence of the source's emissions.

Authority: T.C.A. §§ 68-201-101 through -121 and 4-5-201 through -231.

I certify that the information included in this filing is an accurate and complete representation of the intent and scope of rulemaking proposed by the agency.

Date: August 20, 2020

Signature: \_\_\_\_\_

Name of Officer: Michelle W. Owenby

Title of Officer: Director, Tennessee Division of Air Pollution Control

**Department of State Use Only**

Filed with the Department of State on: \_\_\_\_\_

\_\_\_\_\_  
Tre Hargett  
Secretary of State

# **Second Item**

**2008 Revision to SO<sub>2</sub> Ambient Monitoring Rule**

**Department of State  
Division of Publications**

312 Rosa L. Parks Avenue, 8th Floor Tennessee Tower  
Nashville, TN 37243  
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**For Department of State Use Only**

Sequence Number: 03-18-09  
Rule ID(s): 4154  
File Date: 03/30/09  
Effective Date: 06/13/09

# Rulemaking Hearing Rule(s) Filing Form

*Rulemaking Hearing Rules are rules filed after and as a result of a rulemaking hearing. TCA Section 4-5-205*

<b>Agency/Board/Commission:</b>	Environment and Conservation
<b>Division:</b>	Air Pollution Control
<b>Contact Person:</b>	Jeryl W. Stewart
<b>Address:</b>	9 <sup>th</sup> Floor L & C Annex 401 Church Street Nashville, Tennessee
<b>Zip:</b>	37243-1531
<b>Phone:</b>	(615) 532-0605
<b>Email:</b>	Jeryl.Stewart@state.tn.us

**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.)

Chapter Number	Chapter Title
1200-03-14	Control of Sulfur Dioxide Emissions
Rule Number	Rule Title
1200-03-14-.01	General Provisions

(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 1200-03-14  
Control of Sulfur Dioxide Emissions

Amendment

Part 1 of subparagraph (b) of paragraph (6) of rule 1200-03-14-.01 General Provisions is amended by deleting the part in its entirety and replacing it with the word "Reserved" so that, as amended, Part 1 shall read:

1. Reserved

Authority: T.C.A. § 68-201-105.

\* 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)
Michael Atchison				✓	
Dr. J. Ronald Bailey	✓				J. Ronald Bailey
Tracy R. Carter	✓				Tracy R. Carter
Dr. Wayne T. Davis	✓				Wayne T. Davis
Dr. Mary English				✓	
Stephen R. Gossett	✓				Stephen Gossett
Dr. Shawn A. Hawkins	✓				Shawn Hawkins
Helen Hennon				✓	
Richard M. Holland	✓				Richard Holland
Mayor Donald Mull	✓				Donald Mull
Dale Swafford				✓	
Greer Tidwell, Jr.	✓				Greer Tidwell Jr
Mayor Larry Waters	✓				Larry Waters

I certify that this is an accurate and complete copy of rulemaking hearing rules, lawfully promulgated and adopted by the Air Pollution Control Board (board/commission/ other authority) on 12/10/2008 (mm/dd/yyyy), and is in compliance with the provisions of TCA 4-5-222.

I further certify the following:

Notice of Rulemaking Hearing filed with the Department of State on: 09/30/08

Notice published in the Tennessee Administrative Register on: 10/15/08

Rulemaking Hearing(s) Conducted on: (add more dates). 11/20/08

Date: January 21, 2009

Signature: Barry R. Stephens

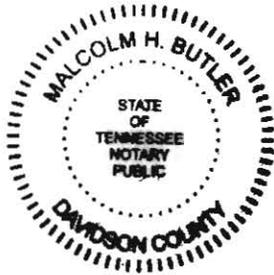
Name of Officer: Barry R. Stephens, P.E.

Title of Officer: Technical Secretary

Subscribed and sworn to before me on: January 21, 2009

Notary Public Signature: Malcolm H. Butler

My commission expires on: May 23, 2009



All rulemaking hearing rules provided 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.

Robert E. Cooper, Jr.  
Robert E. Cooper, Jr.  
Attorney General and Reporter  
3-25-09  
Date

**Department of State Use Only**

Filed with the Department of State on: 3/30/09

Effective on: 6/13/09

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 shall 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 Public Chapter 464 of the 105<sup>th</sup> General Assembly, prior to initiating the rule making process as described in § 4-5-202(a)(3) and § 4-5-202(a), all agencies shall conduct a review of whether a proposed rule or rule affects small businesses.

(If applicable, insert Regulatory Flexibility Addendum here)

- (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:

None

- (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:

None

- (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 proposed rule revision is based upon recommendations of the United States Environmental Protection Agency published in the Federal Register, Volume 71, No. 200, Tuesday, October 17, 2006, beginning on page 61236, Revisions to Ambient Air Monitoring Regulations, Final Rule.

- (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

## Additional Information Required by Joint Government Operations Committee

All agencies, upon filing a rule, must also submit the following pursuant to TCA 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;

The proposed amendment to the Ambient Air Quality rules eliminates one of the three mandatory conditions that must be present prior to the grant of a petition to terminate ambient air quality monitoring for sulfur dioxide from a source. The three conditions, prior to the proposed amendment, are as follows:

- (1) The actual sulfur dioxide emissions from a fuel burning installation do not exceed 20,000 tons per year.
- (2) The source must be located in an attainment area and must not significantly impact a sulfur dioxide nonattainment area.
- (3) Measurements of air quality in the vicinity of the source demonstrate that ambient sulfur dioxide levels do not exceed 75 percent of the Tennessee Ambient Air Quality Standards.

The proposed amendment simply deletes the first condition of a 20,000 ton maximum level of measured sulfur dioxide emissions as a mandatory prerequisite for a waiver of the monitoring requirement. Sulfur dioxide levels have dropped markedly over the last ten years due to advancements in fuel filtering and fuel refinement, all of which were hastened by EPA rule, such that no non-attainment areas for sulfur dioxide in the State of Tennessee remain.

- (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;

The original state rule was promulgated to meet the requirements of 40 CFR 58 for the establishment of an ambient air surveillance network. The proposed rule revision is based upon recommendations of the United States Environmental Protection Agency published in the Federal Register, Volume 71, No. 200, Tuesday, October 17, 2006, beginning on page 61236, Revisions to Ambient Air Monitoring Regulations, Final Rule.

- (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;

The rule revision will affect the Tennessee Valley Authority coal fired electric generating plants and the Tennessee Eastman Chemical manufacturing facility. The Tennessee Valley Authority has urged the adoption of the rule revision.

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

The Department 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;

None.

- (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  
9<sup>th</sup> Floor L&C Annex  
Nashville, Tennessee 37243-1531

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

Alan M. Leiserson  
Legal Services Director  
Department of Environment and Conservation

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

Office of General Counsel  
Department of Environment and Conservation  
20<sup>th</sup> Floor L & C Tower  
Nashville, Tennessee 37243-1548  
(615) 532-0131

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

The Department is not aware of any.

## **Third Item**

**Clean Air Act §110(l) Demonstration for 2008 and  
2020 Revisions to SO<sub>2</sub> Ambient Monitoring Rule**

# Clean Air Act §110(l) Demonstration for Changes to SO<sub>2</sub> Ambient Monitoring Requirements

## I. Background and Purpose

The Tennessee Department of Environment and Conservation, Division of Air Pollution Control (TDEC-APC) is proposing to amend Tennessee Air Pollution Control Regulations (TAPCR) 1200-03-14-.01(6) as discussed below. Rule 1200-03-14-.01 is part of Tennessee's State Implementation Plan (SIP), and Section 110(l) of the Clean Air Act (CAA)<sup>1</sup> prohibit revision of a SIP that would interfere with attainment or maintenance of a NAAQS, reasonable further progress toward attainment of a NAAQS, or any other applicable requirement of the CAA. Because this rule is part of Tennessee's SIP, the requirements of CAA §110(l) must be satisfied before changing the existing ambient monitoring requirements.

## II. CAA §110(l) Demonstration

### 1. Rule Requirements

TAPCR 1200-03-14-.01(6) requires every owner or operator of a fuel burning installation having a total rated capacity greater than 1,000 MMBtu/hr or of a process emission source emitting more than 1,000 tons per year of sulfur dioxide during calendar year<sup>2</sup> 1972 or any other calendar year thereafter to comply with the following requirements:

- Demonstrate to the satisfaction of the Technical Secretary, that the sulfur dioxide emitted either alone or in contribution to other sources will not interfere with attainment and maintenance of any primary or secondary air quality standard; or
- Install and maintain air quality sensors to monitor attainment and maintenance of ambient air quality standards in the areas influenced by SO<sub>2</sub> emissions from the fuel-burning installation or process emission source. Monitoring must be performed and results must be provided in the manner prescribed by the Technical Secretary.

Owners or operators may petition the Technical Secretary to terminate ambient monitoring after two calendar years of air quality data has been generated, provided that the following conditions are met:

- The source must be located in an attainment area and must not significantly impact a sulfur dioxide nonattainment area.
- Measurements of air quality in the vicinity of the source demonstrate that ambient sulfur dioxide levels do not exceed 75% of the Tennessee Ambient Air Quality Standards.

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<sup>1</sup> "Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter."

<sup>2</sup> All calculations must assume that the process emission source or fuel burning installation is operating at the maximum rated capacity.

**2. Proposed Changes to 1200-03-14-.01(6)**

Tennessee proposes to amend Chapter 1200-03-14 (Control of Sulfur Dioxide Emissions) by modifying 1200-03-14-.01(6) (General Provisions). In general, the rule changes would add an exemption to the ambient monitoring requirement for any fuel burning installation or process emission source located in an area in which the Technical Secretary operates one or more ambient sulfur dioxide air quality monitors in the area under the influence of the source's emissions.

Tennessee is also requesting that EPA approve a prior change to 1200-03-14-.01(6)(b)1 into the SIP. This provision required owners or operators petitioning the Technical Secretary to terminate ambient air quality monitoring to demonstrate that actual sulfur dioxide emissions from a fuel burning installation do not exceed 20,000 tons per year. The revisions to 1200-03-14-.01(6)(b)1 were approved by the Tennessee Air Pollution Control Board on December 10, 2008 and became state-effective on June 13, 2009.

**3. Affected Sources**

The electricity generating units (EGUs) and manufacturing operations listed in **Table 1** are the facilities affected by the proposed rule change.

<b>Table 1: Facilities Affected by the Proposed Rule Change</b>			
<b>Facility</b>	<b>County</b>	<b>Attainment Status</b>	<b>Ambient Monitoring Status</b>
Eastman Chemical Company	Sullivan	Nonattainment	Eastman operates one SO <sub>2</sub> monitor at Ross N. Robinson. TDEC operates additional monitors pursuant to 40 CFR 58.
Nyrstar Clarksville, Inc.	Montgomery	Attainment	Nyrstar operates one SO <sub>2</sub> monitor at latitude 36.5051, longitude -87.3977.
TVA Allen	Shelby	Attainment	Shelby County Source – local program regulations apply. Coal plant was replaced with NGCC.
TVA Bull Run	Anderson	Attainment	Petition to remove SO <sub>2</sub> monitors granted effective February 1, 2008.
TVA Cumberland	Stewart	Attainment	Petition to remove SO <sub>2</sub> monitors granted effective February 1, 2008.
TVA Gallatin	Sumner	Attainment	Petition to remove SO <sub>2</sub> monitors granted effective February 1, 2008.
TVA John Sevier	Hawkins	Attainment	Petition to remove SO <sub>2</sub> monitors granted effective February 1, 2008. Coal plant was replaced with NGCC.
TVA Johnsonville	Humphreys	Attainment	Petition to remove SO <sub>2</sub> monitors granted effective February 1, 2008. Coal plant has ceased operation.
TVA Kingston	Roane	Attainment	Petition to remove SO <sub>2</sub> monitors granted effective February 1, 2008.
Resolute FP, US, Inc.	McMinn	Attainment	Petition to remove SO <sub>2</sub> monitors granted effective January 1, 2019.

#### 4. Ambient Monitoring Requirements Established by 40 CFR 58

40 CFR Part 58 (Ambient Air Quality Surveillance) establishes requirements for measuring and reporting ambient air quality data. Part 58 specifies minimum network requirements, including siting parameters, methodology used in monitoring stations, operating schedules, and quality assurance procedures. State and local agencies must submit an annual monitoring network plan to document the establishment and maintenance of the program's air quality surveillance system. The plan must address the design criteria of Part 58, be made available for public comment and EPA review, and must address, as appropriate, any comments.

Network design criteria for sulfur dioxide monitoring are specified in Appendix D to 40 CFR Part 58. For sulfur dioxide, the design criteria specify a minimum number of SO<sub>2</sub> monitors<sup>3</sup> and allow EPA's Regional Administrator to require additional monitors if the minimum requirements are insufficient to meet monitoring objectives. The Regional Administrator may also require additional monitors if SO<sub>2</sub> concentrations in an area have the potential to violate or contribute to the violation of the NAAQS, in areas impacted by sources which are not conducive to modeling, or in locations with susceptible and vulnerable populations.

#### 5. CAA §110(l) Demonstration for Addition of 1200-03-14.01(6)(d)

Currently, only two sources in Tennessee (Eastman Chemical Company in Kingsport and Nyrstar in Clarksville) are required to perform ambient monitoring pursuant to 1200-03-14.01(6). Eastman Chemical Company currently operates one ambient SO<sub>2</sub> monitor located on Wilburn Drive in Kingsport (Sullivan County), in the vicinity of the Ross N. Robinson Middle School ("Ross N. Robinson monitor"). Nyrstar Clarksville, Inc. operates one ambient SO<sub>2</sub> monitor located in the vicinity of Cumberland Heights School at latitude 36.5051N and Longitude 87.3977W (Montgomery County).

The Title V operating permits<sup>4</sup> for these facilities state that each facility must operate and maintain the SO<sub>2</sub> monitoring site as directed by the Technical Secretary of the Air Pollution Control Board to insure that complete, precise, and accurate data are generated and reported, as follows:

- At least 75% of the hourly values per site per day and 75% of sampling days each calendar quarter of each year must be reported. At least 75% of the 5-minute block averages in each hour must also be reported.
- The monitor must be operated in accordance with a written, approved Quality Assurance Plan for the SO<sub>2</sub> monitoring network.

<sup>3</sup> Section 4.4.2 of Appendix D requires States to calculate the population weighted emissions index (PWEI) shall for each core based statistical area (CBSA) to implement or adjust to the SO<sub>2</sub> monitoring network. The PWEI is calculated by multiplying the current population of the CBSA and the total SO<sub>2</sub> emissions in tons per year and dividing this result by one million. The PWEI establishes the minimum number of SO<sub>2</sub> monitors for each CBSA as shown below:

PWEI	Minimum number of SO <sub>2</sub> monitors
≥ 1,000,000	3
≥ 100,000	2
≥ 5,000	1

<sup>4</sup> See Condition E3-3 of Title V Operating Permit 560146 (Nyrstar) and Condition E2-4 and Attachment 3 of Title V Operating Permit 568972 (Eastman Chemical Company)

- Data must be reported in the proper AQS format and must be accompanied by a statement of validation attesting data accuracy. Data must be reported in standard time only and in units of measurement particular to the pollutant being observed.
- Failure to comply with these requirements is a violation of the facility's Title V Operating Permit.

Tennessee operates four ambient SO<sub>2</sub> monitors in Sullivan County pursuant to 40 CFR Part 58, including one monitor co-located at Eastman's Ross N. Robinson site. The other monitors are located at Skyland Drive and Happy Hill Road, and the vicinity of Andrew Johnson Elementary School.

Part 58 establishes requirements for state or local air pollution control agencies and owners or operators of proposed sources, including minimum network requirements (e. g., number and placement of monitors), operating schedules and methodology, and quality assurance procedures (see Attachment 1 for a summary). Because these requirements are more stringent than the requirements established in the Title V Operating Permit for Eastman, the proposed SIP revision would not interfere with attainment or maintenance of a NAAQS, reasonable further progress toward attainment of a NAAQS, or any other applicable requirement of the CAA. No control device is being removed as a result of the proposed change, and no emissions increases are expected from the proposed change.

**6. CAA §110(l) Demonstration for Removal of 1200-03-14-.01(6)(b)1.**

As indicated above, Tennessee requests approval of a prior change to 1200-03-14-.01(6)(b)1 into the SIP. This provision required owners or operators petitioning the Technical Secretary to terminate ambient air quality monitoring to demonstrate that actual sulfur dioxide emissions from a fuel burning installation do not exceed 20,000 tons per year.

All but one of the facilities listed in Section 3 of this demonstration (Nyrstar) are fuel burning installations, or include fuel burning installations as part of a larger manufacturing process. For the two non-EGU fuel burning installations (**Table 2**), allowable emissions are limited to less than 20,000 tons/year.

<b>Table 2: SO<sub>2</sub> Emissions from Non-EGU Fuel Burning Installations</b>	
<b>Facility</b>	
Eastman Chemical Company	Five boilers (B-253 Boilers 25 through 29) were repowered from coal to natural gas operation between 2013 and 2018. The remaining coal-fired boilers (B-83 Boilers 18 through 24 and B-325 Boilers 30 and 31) are subject to a SIP limit of 1,753 lb/hr SO <sub>2</sub> . Eastman would be exempted from monitoring by the proposed 1200-03-14-.01(6)(d).
Resolute FP, US, Inc.	SO <sub>2</sub> emissions from the power boilers F1, F2, and F3 are limited to 4,562 tons during any period of 12 consecutive calendar months (total for all three boilers). Sulfur dioxide emissions from Resolute's multi-fuel boiler are limited to 489.7 tons/year. This facility ceased burning coal in 2013.

For EGUs, actual emissions for all facilities were less than 20,000 tons/year between 2013 and 2018. Three of these facilities have been repowered or retired, and the remaining coal units have installed SO<sub>2</sub> controls since 2008. The coal units are also complying with an emission limit of 0.2 lb/MMBtu SO<sub>2</sub> (40 CFR 63 Subpart UUUUU) and compliance with Subpart UUUUU will limit emissions from three of the four facilities to less than 20,000 tons/year (**Table 4**).

<b>Table 3: SO<sub>2</sub> Emissions from EGUs</b>			
<b>Facility Name</b>	<b>Year</b>	<b>SO<sub>2</sub> (tons)</b>	<b>Comments</b>
Allen	2013	9,989	The coal units at Allen Fossil Plant were replaced with a natural gas combined cycle plant in 2018.
Allen	2014	9,749	
Allen	2015	6,950	
Allen	2016	7,693	
Allen	2017	7,636	
Allen	2018	909	
Allen	2019	11	
Bull Run	2013	210	Bull Run Fossil Plant is scheduled for closure in 2023. Bull Run is subject to an SO <sub>2</sub> emission limit of 0.20 lb/MMBtu (40 CFR 63 Subpart UUUUU) <sup>5</sup> .
Bull Run	2014	557	
Bull Run	2015	431	
Bull Run	2016	360	
Bull Run	2017	563	
Bull Run	2018	199	
Bull Run	2019	308	
Cumberland	2013	7,962	Cumberland Fossil Plant is subject to an SO <sub>2</sub> emission limit of 0.20 lb/MMBtu (40 CFR 63 Subpart UUUUU) <sup>6</sup> .
Cumberland	2014	9,396	
Cumberland	2015	8,850	
Cumberland	2016	10,123	
Cumberland	2017	6,649	
Cumberland	2018	7,408	
Cumberland	2019	7,209	
Gallatin	2013	20,714	SO <sub>2</sub> controls were installed at Gallatin Fossil Plant in 2016. Gallatin is subject to an SO <sub>2</sub> emission limit of 0.20 lb/MMBtu (40 CFR 63 Subpart UUUUU) <sup>7</sup> .
Gallatin	2014	19,437	
Gallatin	2015	12,316	
Gallatin	2016	1,401	
Gallatin	2017	1,112	
Gallatin	2018	1,828	
Gallatin	2019	1,735	
John Sevier	2013	5	The coal units at John Sevier Fossil Plant were replaced with a natural gas combined cycle plant in 2012.
John Sevier	2014	8	
John Sevier	2015	11	

<sup>5</sup> Bull Run Notification of Compliance Status dated October 27, 2015.

<sup>6</sup> Cumberland Notifications of Compliance Status dated September 16, 2016 (Unit 1) and October 6, 2016 (Unit 2).

<sup>7</sup> Gallatin Notification of Compliance Status dated August 24, 2016.

Facility Name	Year	SO <sub>2</sub> (tons)	Comments
John Sevier	2016	12	
John Sevier	2017	11	
John Sevier	2018	11	
John Sevier	2019	11	
Johnsonville	2013	12,072	All coal units at Johnsonville Fossil Plant were retired by December 31, 2017.
Johnsonville	2014	17,519	
Johnsonville	2015	29,631	
Johnsonville	2016	9,202	
Johnsonville	2017	6,313	
Johnsonville	2018	2	
Johnsonville	2019	3	
Kingston	2013	5,423	Kingston Fossil Plant is subject to an SO <sub>2</sub> emission limit of 0.20 lb/MMBtu (40 CFR 63 Subpart UUUUU) <sup>8</sup> .
Kingston	2014	1,731	
Kingston	2015	1,472	
Kingston	2016	2,453	
Kingston	2017	1,999	
Kingston	2018	1,327	
Kingston	2019	1,917	

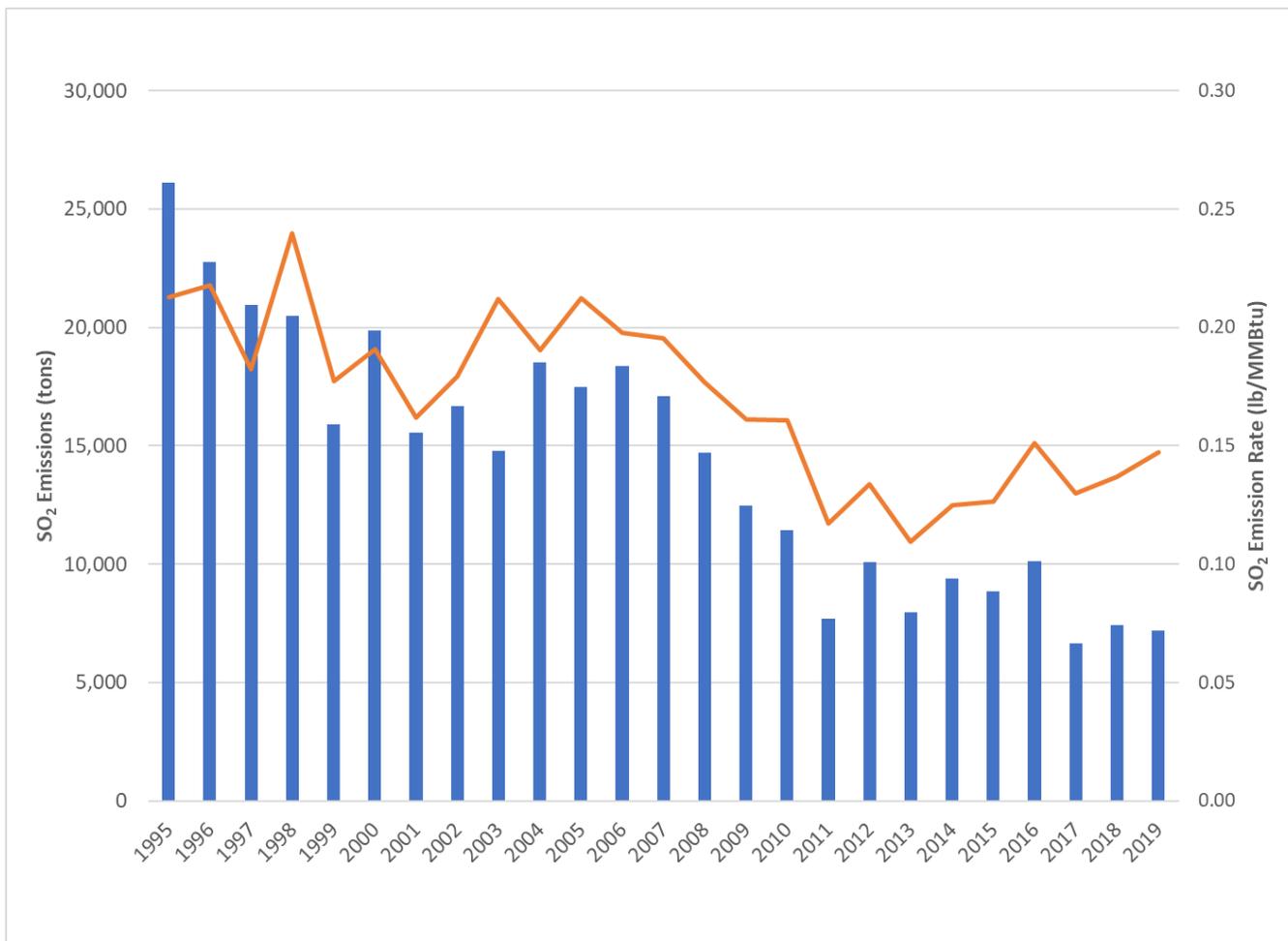
Facility	Nominal Heat Input (MMBtu/hr)	Allowable SO <sub>2</sub> Emissions at Nominal Heat Input
Bull Run	8,871	7,771
Cumberland	28,260	24,756
Gallatin	11,564	10,130
Kingston	16,844	14,755

For the remaining facility (Cumberland Fossil Plant), long-term emission trends<sup>9</sup> were reviewed to assess the likelihood that emissions from this facility would exceed the 20,000 ton/year threshold (Figure 1). Cumberland's SO<sub>2</sub> emissions have not exceeded 20,000 tons per year since 1999 and in general, emissions have been at or below 10,000 tons/year since 2011. Cumberland is also subject to the SO<sub>2</sub> Data Requirements Rule<sup>10</sup> and modeling is used to demonstrate NAAQS attainment.

<sup>8</sup> Kingston Notifications of Compliance Status dated September 27, 2016 and September 17, 2019.

<sup>9</sup> Cumberland's SO<sub>2</sub> emissions data were obtained from EPA's Air Markets Program database at <https://ampd.epa.gov/ampd/>.

<sup>10</sup> 40 CFR 51 Subpart BB (Data Requirements for Characterizing Air Quality for the Primary SO<sub>2</sub> NAAQS). This rule requires air agencies to monitor or model sources with annual actual SO<sub>2</sub> emissions of 2,000 tons or more. For any area where modeling of actual SO<sub>2</sub> emissions serves as the basis for designating the area as attainment for the SO<sub>2</sub> NAAQS, the air agency must demonstrate that the affected area would meet the SO<sub>2</sub> NAAQS based on modeling of actual or allowable emissions. If actual emissions are modeled, the



**Figure 1: TVA Cumberland SO<sub>2</sub> Emissions and Emission Rate, 1995-2019**

In summary, the actual emissions requirement has been fulfilled for all existing fuel burning installations, and future emissions from these sources are limited by federal requirements, SIP limits, and repowering or retirement. Cumberland Fossil Plant is also subject to the SO<sub>2</sub> Data Requirements Rule (40 CFR Part 51, Subpart BB), and Tennessee must demonstrate via modeling or ambient monitoring that emissions from this facility will not cause or contribute to a NAAQS violation for sulfur dioxide. Any new fuel burning installations emitting SO<sub>2</sub> above applicability thresholds would be subject to Prevention of Significant Deterioration (PSD) or Nonattainment New Source Review (NNSR) requirements<sup>11</sup> and New Source Performance Standards (40

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agency must submit an annual report to the Regional Administrator by July 1 of each year, including a recommendation regarding whether additional modeling is needed to determine whether the area meets the SO<sub>2</sub> NAAQS. Additional modeling of actual emissions is not required if modeling demonstrates that ambient SO<sub>2</sub> concentrations at all receptors are no greater than 50% of the NAAQS.

<sup>11</sup> TAPCR 1200-03-09-.01(4) (Prevention of Significant Air Quality Deterioration) requires each proposed major stationary source or major modification to demonstrate by source impact analysis that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reduction (including secondary emissions) will not cause or contribute to air pollution in violation of any Tennessee ambient air quality standard in the source impact area or any applicable maximum allowable increase over the baseline concentration in any area. For nonattainment areas, TAPCR 1200-03-09-.01(5) (Growth Policy) requires major stationary sources and major modifications to install technology representing the lowest achievable emission rate and to obtain

CFR Part 60). The preconstruction requirements and federal standards would limit emissions such that any future facility is unlikely to exceed the 20,000 ton/year threshold in 1200-03-14-.01(6)(b)1. These factors demonstrate that the proposed SIP revision would not interfere with attainment or maintenance of a NAAQS, reasonable further progress toward attainment of a NAAQS, or any other applicable requirement of the CAA. No control device is being removed as a result of the proposed change, and no emissions increases are expected from the proposed change.

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emissions offsets such that the reductions of any nonattainment pollutant are equal to or greater than the actual emissions from the proposed new source or modification.

**Attachment 1: 40 CFR Part 58 – Summary of Ambient Monitoring Requirements for SO<sub>2</sub>**

Rule Citation	Requirement
§58.10(a)(1)	The state or local agency shall submit to the Regional Administrator an annual monitoring network plan which shall provide for the documentation of the establishment and maintenance of an air quality surveillance system. The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of Part 58, as applicable. The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall include and address, as appropriate, any received comments.
§58.10(a)(2)	Any annual monitoring network plan that proposes network modifications is subject to the approval of the EPA Regional Administrator, who shall approve or disapprove the plan within 120 days of submission of a complete plan to the EPA.
§58.10(a)(6)	A plan for establishing SO <sub>2</sub> monitoring sites in accordance with the requirements of appendix D to Part 58 shall be submitted to the EPA Regional Administrator by July 1, 2011 as part of the annual network plan. The plan shall provide for all required SO <sub>2</sub> monitoring sites to be operational by January 1, 2013.
§58.10(b)	<p>The annual monitoring network plan must contain the following information for each existing and proposed site:</p> <ul style="list-style-type: none"> <li>• AQS site identification number.</li> <li>• location, including street address and geographical coordinates.</li> <li>• sampling and analysis method(s) for each measured parameter.</li> <li>• operating schedules for each monitor.</li> <li>• Any proposals to remove or move a monitor within 18 months.</li> <li>• monitoring objective and spatial scale of representativeness.</li> <li>• The MSA, CBSA, CSA or other area represented by the monitor.</li> </ul>
§58.10(d) and (e)	The state or local agency shall submit to the EPA Regional Administrator an assessment of the air quality surveillance system every 5 years to determine, at a minimum, if the network meets the monitoring objectives defined in appendix D Part 58, whether new sites are needed, whether existing sites are no longer needed and can be terminated, and whether new technologies are appropriate for incorporation into the ambient air monitoring network. The network assessment must consider the ability of existing and proposed sites to support air quality characterization for areas with relatively high populations of susceptible individuals (e.g., children with asthma), and, for any sites that are being proposed for discontinuance, the effect on data users other than the agency itself, such as nearby states and tribes or health effects studies. All proposed additions and discontinuations of SLAMS monitors in annual monitoring network plans and periodic network assessments are subject to approval according to §58.14.
§58.11	State and local governments shall follow the applicable quality assurance criteria contained in Appendix A to Part 58, the criteria in appendix C to Part 58 to determine acceptable monitoring methods or instruments, the network design criteria contained in Appendix D to Part 58, and the criteria contained in appendix E to this part for siting monitor inlets, paths or probes.
§58.12(a)	State and local governments shall collect ambient air quality data at any SLAMS station on the following operational schedules: for continuous analyzers, consecutive hourly averages must be collected except during periods of routine maintenance, periods of instrument calibration, or periods or monitoring seasons exempted by the Regional Administrator.
§58.12(g)	For continuous SO <sub>2</sub> analyzers, the maximum 5-minute block average concentration of the twelve 5-minute blocks in each hour must be collected except as noted in §58.12 (a).

**Attachment 1: 40 CFR Part 58 – Summary of Ambient Monitoring Requirements for SO<sub>2</sub>**

Rule Citation	Requirement
§58.14(a)	The state or local agency shall develop a network modification plan and schedule to modify the ambient air quality monitoring network that addresses the findings of the 5-year network assessment. The network modification plan shall be submitted as part of the Annual Monitoring Network Plan due the year after submittal of the network assessment.
§58.14(c)	<p>State or local agency requests for SLAMS monitor station discontinuation will be approved if any of the following criteria are met and if the applicable requirements of Appendix D continue to be met. Other requests for discontinuation may be approved on a case-by-case basis if discontinuance does not compromise data collection needed for implementation of a NAAQS and the applicable requirements of Appendix D continue to be met.</p> <ul style="list-style-type: none"> <li>• Any SO<sub>2</sub> monitor that has shown attainment during the previous five years, has a probability of less than 10% of exceeding 80% of the NAAQS during the next three years based on the levels, trends, and variability observed in the past, and not specifically required by an attainment plan or maintenance plan<sup>12</sup>.</li> <li>• Any SO<sub>2</sub> monitor that has consistently measured lower concentrations than another monitor for the same pollutant in the same county (or portion of a county) during the previous five years and is not specifically required by an attainment plan or maintenance plan, if control measures implemented or discontinued during the next five years would apply to the areas around both monitors and have similar effects on measured concentrations, such that the retained monitor would remain the higher reading of the two monitors being compared.</li> <li>• Any monitor that has not measured NAAQS violations in the previous five years, if the SIP provides for a specific, reproducible approach to representing air quality in the absence of actual monitoring data.</li> <li>• A monitor not eligible for removal may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site.</li> </ul>
§58.15	The state or local agency shall submit an annual air monitoring data certification letter to certify monitoring data collected from January 1 to December 31 of the previous year. The monitoring agency shall certify that the previous year of ambient concentration and quality assurance data are completely submitted to AQS and that the ambient concentration data are accurate to the best of her or his knowledge, taking into consideration the quality assurance findings. The annual data certification letter is due by May 1 of each year. The agency shall submit an annual summary report of the ambient air quality data and a summary of the precision and accuracy data for all ambient air quality data.

<sup>12</sup> In a nonattainment or maintenance area, if the most recent attainment or maintenance plan adopted by the State and approved by EPA contains a contingency measure to be triggered by an air quality concentration and the monitor to be discontinued is the only SLAMS monitor operating in the nonattainment or maintenance area, the monitor may not be discontinued.

**Attachment 1: 40 CFR Part 58 – Summary of Ambient Monitoring Requirements for SO<sub>2</sub>**

Rule Citation	Requirement
§58.16	<p>The agency shall report all ambient air quality data and associated quality assurance data for SO<sub>2</sub> via AQS. Air quality data and information must be submitted directly to the AQS via electronic transmission on the specified schedule described in §§58.16(b) and (d). Air quality data must be edited, validated, and entered into the AQS pursuant to appropriate AQS procedures.</p> <p>Any agency operating a continuous SO<sub>2</sub> analyzer shall report the maximum 5-minute SO<sub>2</sub> block average of the twelve 5-minute block averages in each hour, in addition to the hourly SO<sub>2</sub> average.</p>
Appendix A to Part 58	<p>Each Primary Quality Assurance Organization (PQAO)<sup>13</sup> must implement a quality system that provides sufficient information to assess the quality of the monitoring data. All PQAOs must develop a quality system that is described and approved in quality management plans<sup>14</sup> and quality assurance project plans<sup>15</sup> to ensure that the monitoring results meet a well-defined need, use, or purpose; provide data of adequate quality for the intended monitoring objectives; satisfy stakeholder expectations; comply with applicable standard specifications; comply with statutory and other legal requirements; and reflect consideration of cost and economics.</p> <p>The PQAO shall provide for the implementation of a program of independent and adequate audits of all monitors providing data for NAAQS compliance purposes including the provision of adequate resources for such audit programs. The auditing organization must not be involved with the generation of the ambient air monitoring data. Technical systems audits of each PQAO shall be conducted at least every 3 years by the EPA Regional Office and reported to the AQS.</p> <p>Gaseous pollutant concentration standards used to obtain test concentrations for SO<sub>2</sub> must be traceable to either a NIST-Traceable Reference Material or a NIST-certified Gas Manufacturer's Internal Standard. Monitoring organizations must provide information to the EPA on the gas producers they use on an annual basis. Flow rate measurements must be made by a NIST-traceable flow measuring instrument.</p>

<sup>13</sup> A Primary Quality Assurance Organization (PQAO) is responsible for a set of stations that monitors the same pollutant and for which data quality assessments will be pooled.

<sup>14</sup> 2.1.1 The quality management plan (QMP) describes the quality system in terms of the organizational structure, functional responsibilities of management and staff, lines of authority, and required interfaces for those planning, implementing, assessing and reporting activities involving environmental data operations. The QMP must be documented in accordance with EPA requirements and approved by the Regional Administrator. The quality system described in the QMP will be reviewed during periodic systems audits.

<sup>15</sup> The quality assurance project plan (QAPP) is a formal document describing the quality system that must be implemented to ensure that the results of work performed will satisfy the stated objectives. QAPPs must describe how the organization intends to control measurement uncertainty to an appropriate level in order to achieve the data quality objectives, must be documented in accordance with EPA requirements, and include standard operating procedures

**Attachment 1: 40 CFR Part 58 – Summary of Ambient Monitoring Requirements for SO<sub>2</sub>**

Rule Citation	Requirement
Appendix A to Part 58 (continued)	<p>A one-point QC check must be performed at least once every two weeks on each monitor<sup>16</sup>. The QC check gas concentration selected within the prescribed range should be related to the monitoring objectives for the monitor. Point analyzers must operate in their normal sampling mode during the QC check and the test atmosphere must pass through all filters, scrubbers, conditioners and other components used during normal ambient sampling and as much of the ambient air inlet system as is practicable. The QC check must be conducted before any calibration or adjustment to the monitor.</p> <p>A performance evaluation must be conducted on each primary monitor once a year. The evaluation is made by challenging the monitor with audit gas standards of known concentration from at least three audit levels. One point must be within two to three times the method detection limit of the instruments, the second point will be less than or equal to the 99th percentile of the site data or the next highest audit concentration level, and the third point can be around the primary NAAQS or the highest 3-year concentration at the site. The audit gas test concentrations are obtained must meet the specifications of section 2.6.1 of Appendix A. The evaluation shall be carried out by allowing the monitor to analyze the audit gas test atmosphere in its normal sampling mode such that the test atmosphere passes through all filters, scrubbers, conditioners, and other sample inlet components used during normal ambient sampling and as much of the ambient air inlet system as is practicable.</p>
Appendix A to Part 58 (continued)	<p>The National Performance Audit Program (NPAP) is a performance evaluation which is a type of audit where quantitative data are collected independently in order to evaluate the proficiency of an analyst, monitoring instrument or laboratory. Due to the implementation approach used in the program, NPAP provides a national independent assessment of performance while maintaining a consistent level of data quality. The program requirements include:</p> <ul style="list-style-type: none"> <li>• Perform audits of the primary monitors at 20% of monitoring sites per year and 100% of the sites every six years. High-priority sites may be audited more frequently.</li> <li>• Develop a delivery system that will allow for the audit concentration gasses to be introduced to the probe inlet where logistically feasible.</li> <li>• Use audit gases that are verified against the NIST standard reference methods or special review procedures and validated annually for SO<sub>2</sub>.</li> </ul>
Appendix C to Part 58	<p>Except as otherwise provided in Appendix C, a criteria pollutant monitoring method used for making NAAQS decisions at a SLAMS site must be a reference or equivalent method as defined in 40 CFR §50.1. No reference method or equivalent method, or ARM may be used if it has been modified in a manner that could significantly alter the performance characteristics of the method without prior approval by the Administrator.</p>
Appendix D to Part 58	<p>State and local agencies must operate a minimum number of required SO<sub>2</sub> monitoring sites. The SO<sub>2</sub> monitoring site(s) shall satisfy minimum monitoring requirements if the monitor is sited within the boundaries of the parent CBSA and is one of the following site types: population exposure, highest concentration, source impacts, general background, or regional transport. The appropriate spatial scales for SO<sub>2</sub> SLAMS monitors are the microscale, middle, neighborhood, and urban scales.</p>

<sup>16</sup> The QC check is made by challenging the monitor with a QC check gas of known concentration (effective concentration for open path monitors) between the prescribed range of 0.005 and 0.08 ppm for SO<sub>2</sub>.

**Attachment 1: 40 CFR Part 58 – Summary of Ambient Monitoring Requirements for SO<sub>2</sub>**

Rule Citation	Requirement
Appendix E to Part 58	<p>The probe, or at least 80% of the monitoring path, must be located between 2 and 15 meters above ground level for all SO<sub>2</sub> monitoring sites. The probe or at least 90 percent of the monitoring path must be at least 1 meter vertically or horizontally away from any supporting structure, walls, parapets, penthouses, <i>etc.</i>, and away from dusty or dirty areas. If the probe or a significant portion of the monitoring path is located near the side of a building or wall, then it should be located on the windward side of the building relative to the prevailing wind direction during the season of highest concentration potential for the pollutant being measured.</p> <p>If a monitoring site is to be used to determine air quality over a larger area, such as a neighborhood or city, a monitoring agency should avoid placing a monitor probe, path, or inlet near local, minor sources. The plume from the local minor sources should not be allowed to inappropriately impact the air quality data collected at a site.</p> <p>Buildings and other obstacles may scavenge SO<sub>2</sub> and can act to restrict air flow. The probe, inlet, or at least 90% of the monitoring path must have unrestricted airflow and be located away from obstacles. The distance from the obstacle to the probe, inlet, or monitoring path must be at least twice the height that the obstacle protrudes above the probe, inlet, or monitoring path. An exception to this requirement can be made for measurements taken in street canyons or at source-oriented sites where buildings and other structures are unavoidable.</p> <p>A probe, inlet, or monitoring path must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. A monitoring path must be clear of all trees, brush, buildings, plumes, dust, or other optical obstructions, including potential obstructions. The probe, inlet, or at least 90 % of the monitoring path must be at least 10 meters from the drip line of trees.</p> <p>Borosilicate glass, FEP Teflon®, or their equivalent must be the only material in the sampling train (from inlet probe to the back of the analyzer) that can be in contact with the ambient air sample for existing and new SLAMs.</p> <p>EPA will consider a written request from the State agency to waive one or more siting criteria for some monitoring sites if the State can adequately demonstrate the need for monitoring that location.</p>