

## FINAL DETERMINATION

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### PERMITTEE

CF Industries, Inc.  
P.O. Drawer L  
Plant City, Florida 33564

### PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)  
Air Resource Management  
Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-7600

### PROJECT

Title V Air Operation Permit Revision No. 0570005-048-AV  
Site Name

The main purpose of this project is to revise the Title V air operation permit (0570005-041-AV) and incorporate terms and conditions of air Construction Permit 0570005-047-AC.

### NOTICE AND PUBLICATION

The Department distributed an Intent to Issue Title V Air Operation Permit package on March 26, 2012. The applicant published the Public Notice of Intent to Issue Air Permit in the Tampa Tribune on March 31, 2012. The Department received the proof of publication on April 19, 2012. A proposed permit was issued for EPA review on March 31, 2012.

### COMMENTS

No comments were received from the applicant, the public, the Environmental Protection Commission of Hillsborough County, or the EPA Region 4 Office.

One minor change was made to the Final Title V air operation permit. Appendix PSD-FL-155/AC29-18691 was added to the list of items in the Appendices section of the "Table of Contents". Appendix PSD-FL-155/AC29-18691 was included in the draft/proposed Title V air operation permit; however, it was not listed in the Table of Content.

### CONCLUSION

In conclusion, the change that has been made is not significant enough to reissue the draft/proposed Title V air operation permit and require another public notice. The permitting authority hereby issues the FINAL Permit, with the changes noted above.

CF Industries, Inc.  
Plant City Phosphate Complex

Facility ID No. 0570005  
Hillsborough County

**Title V Air Operation Permit Revision**

Permit No. 0570005-048-AV  
(Revision to Title V Air Operation Permit No. 0570005-041-AV)



**Permitting Authority:**

State of Florida  
Department of Environmental Protection  
Air Resource Management, Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926  
Telephone: (813) 632-7600  
Fax: (813) 632-7668

**Compliance Authority:**

Environmental Protection Commission of Hillsborough County  
3629 Queen Palm Drive  
Tampa, Florida 33619  
Telephone: 813-627-2600  
Fax: 813-627-2660

## Title V Air Operation Permit Revision

Permit No. 0570005-048-AV

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## ***FINAL PERMIT***

**PERMITTEE:**

CF Industries, Inc.  
P.O. Drawer L  
Plant City, Florida 33564

Permit No. 0570005-048-AV  
Plant City Phosphate Complex  
Facility ID No. 0570005  
Title V Air Operation Permit Revision

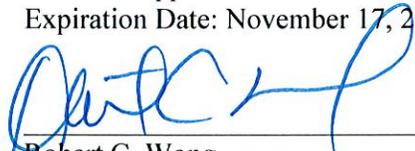
The purpose of this permit is to revise Title V Operation Permit No. 0570005-041-AC to incorporate the provisions of concurrently processed Construction Permit No. 0570005-047-AC for the above referenced facility and to make some additional minor revisions to the Title V Permit. Revisions to this permit are listed below:

- (1) In the facility's four sulfuric acid plants (E.U. No. 002, 003, 007 and 008) the permittee is authorized by Construction Permit 0570005-047-AC to replace acid coolers in the facility's four sulfuric acid plants with spare coolers, as needed.
- (2) In the facility's B Sulfuric Acid Plant (E.U. No. 003), the permittee is authorized by Construction Permit 0570005-047-AC to make several modifications to the plants SO<sub>2</sub> Stripper and associated equipment.
- (3) The specific condition associated with Rule 62-296.411, F.A.C. for "Sulfur Storage and Handling Facilities" which applies to E.U. Nos. 022, 023, 024 and 033, was removed because the rule was repealed.
- (4) Corrected a typographical error in contained in Table 2 of the Referenced Attachments. The VE test duration for E.U. Nos. 015, 018, 019 and 020 was changed from 60 minutes to 30 minutes.
- (5) The specific condition associated with Continuous Monitoring Requirements for SO<sub>2</sub> CEMS in the four sulfuric acid plants (E.U. Nos. 002, 003, 007 & 008) was revised to address 24 hour block average SO<sub>2</sub> emissions.

The existing facility is located in Hillsborough County at 10608 Paul Buchman Highway, Plant City, Florida. UTM Coordinates are: Zone 17, 388.0 km East and 3116.0 km North. Latitude is: 28° 09' 59" North and Longitude: 82° 08' 27" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Initial Effective Date: November 17, 2011  
Revision Effective Date: May 15, 2012  
Renewal Application Due Date: April 16, 2016  
Expiration Date: November 17, 2016

  
\_\_\_\_\_  
Robert C. Wong  
District Air Program Administrator  
Southwest District

## SECTION I. FACILITY INFORMATION.

### **Subsection A. Facility Description.**

This facility is a phosphate fertilizer production facility. The facility includes four sulfuric acid production plants, two phosphoric acid production plants, four ammonium phosphate production plants with associated storage and shipping units, a molten sulfur storage and handling system, a phosphogypsum stack, and four emergency diesel engines. Final products produced at the facility include sulfuric acid, phosphoric acid, ammonium sulfate, diammonium phosphate (DAP), and monoammonium phosphate (MAP).

This facility is classified as a major source (Title V source) of Nitrogen Oxides (NO<sub>x</sub>), Particulate Matter - PM<sub>10</sub>, Sulfur Dioxide (SO<sub>2</sub>), Fluorides (F) and Sulfuric Acid Mist (SAM). Additionally, the Department has determined that this facility is a major source of hazardous air pollutants (HAPs), based upon its estimation of emissions of hydrogen fluoride. If additional testing and modeling demonstrate: (1) that the facility is not and has never been a major source of hazardous air pollutants since at least June 10, 2002, or (2) if prospective changes to Subparts AA and BB warrant such an outcome, the Permittee shall have the right to request that the Department revise the determination of major source status and revise this permit to remove all requirements and conditions based on 40 CFR Part 63.

### **Subsection B. Summary of Emissions Units.**

<b>EU No.</b>	<b>Brief Description</b>
<i>Regulated Emissions Units</i>	
001	Johnson Scotch Marine Type Boiler
002	"A" Sulfuric Acid Plant
003	"B" Sulfuric Acid Plant
004	"A" Phosphoric Acid Plant
007	"C" Sulfuric Acid Plant
008	"D" Sulfuric Acid Plant
009	"B" Phosphoric Acid Plant
010	"A" DAP/MAP Plant
011	"Z" DAP/MAP Plants
012	"X" DAP/MAP Plants
013	"Y" DAP/MAP Plants
014	"A & B" Storage Buildings
015	"A" Shipping Baghouse
018	"B" Shipping Baghouse
019	"B" Truck Loading
020	"B" Railcar Loading
022	2600 Ton Storage Tank
023	Truck Pit A
024	Truck Pit B
032	Phosphoric Acid Cleanup
033	5000 Ton Storage Tank

**SECTION I. FACILITY INFORMATION.**

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100	Phosphogypsum Stack
102	Emergency Diesel Engines (Existing stationary RICE)
<i>Unregulated Emissions Units and Activities</i>	
099	<p>Fugitive emissions :</p> <ul style="list-style-type: none"><li>- SO<sub>2</sub>, SO<sub>3</sub>, SAM emissions from the <u>A, B, C &amp; D Sulfuric Acid Plants</u></li><li>- Fluoride emissions from the <u>A &amp; B Phosphoric Acid Plants</u></li><li>- Fluoride, NH<sub>3</sub>, PM emissions from the <u>A, X, Y &amp; Z Granulation Plants</u></li><li>- Hydrogen Fluoride emissions from the <u>Phosphogypsum Stack and Cooling Pond</u></li></ul> <p><i>Note: For this emissions unit, Annual Operation Report (AOR) emissions estimates are required only for the Hydrogen Fluoride emissions from the Phosphogypsum Stack and Cooling Pond.</i></p>

**SECTION I. FACILITY INFORMATION.**

**Subsection C. Applicable Regulations.**

Based on the Title V air operation permit revision application received October 17, 2011, this facility is a major source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating internal combustion engines, it is subject to regulation under 40 CFR 63, Subpart ZZZZ, - National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines. The existing facility is a PSD major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

<b>Regulation</b>	<b>EU No(s).</b>
40 CFR 60, Subpart A, NSPS General Provisions	003, 007, 008
40 CFR 60, Subpart H, Standards of Performance for Sulfuric Acid Plants	003, 007, 008
40 CFR 61, Subpart A, NESHAP General Provisions	100
40 CFR 61, Subpart R, National Emission Standards for Radon Emissions From Phosphogypsum Stacks	100
40 CFR 63, Subpart A, General Provisions	004, 009, 010, 011, 012, 013, 102
40 CFR 63, Subpart AA - National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants	004, 009
40 CFR 63, Subpart BB - National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants.	010, 011, 012, 013
40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	102
Rule 62-296.402, F.A.C.	002, 003, 007, 008
Rule 62-296.403, F.A.C.	004, 009, 010, 011, 012, 013, 032
Rule 62-296.406, F.A.C.	001
BACT Determination (Appendix BACT, 0570005-041-AV)	001
BACT Determination (Appendix BACT, PSD-FL-339/0570005-019-AC)	007, 008
BACT Determination (Appendix BACT, PSD-FL-339B/0570005-026-AC.)	007, 008
BACT Determination (Appendix BACT, PSD-FL-355/0570005-021-AC.)	003, 004, 009
Compliance Assurance Monitoring Plan (Appendix CAM)	032

## SECTION II. FACILITY-WIDE CONDITIONS.

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### The following conditions apply facility-wide to all emission units and activities:

**FW1.** Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

### Emissions and Controls

**FW2. Not federally Enforceable. Objectionable Odor Prohibited.** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An “objectionable odor” means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

**FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions.** The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

*{Permitting Note: Nothing is deemed necessary and ordered at this time.}*

**FW4. General Visible Emissions.** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

**FW5. Unconfined Particulate Matter.** No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- keeping covers on process equipment.
- prompt clean-up of spills within the plant.
- cleaning or wetting areas used by vehicles and machines.

[Rule 62-296.320(4)(c), F.A.C.]

*{Permitting Note: reasonable precautions proposed by applicant in Title V air operation permit application received March 2, 2010}*

### Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

**FW6. Annual Operating Report.** The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1<sup>st</sup> of each year. [Rule 62-210.370(3), F.A.C.]

**FW7. Annual Emissions Fee Form and Fee.** The annual Title V emissions fees are due (postmarked) by March 1<sup>st</sup> of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rule 62-213.205, F.A.C.]

## SECTION II. FACILITY-WIDE CONDITIONS.

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- FW8.** Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective.  
[Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]
- FW9.** Prevention of Accidental Releases (Section 112(r) of CAA).
- a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
  - b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
  - c. The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.
  - d. Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to: Department of Community Affairs, Division of Emergency Management, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2100, Telephone: (850) 413-9921, Fax: (850) 488-1739.
  - e. Any Risk Management Plans, original submittals, revisions, or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
  - f. Any required reports to be sent to the National Response Center, should be sent to: National Response Center, EPA Office of Solid Waste and Emergency Response, USEPA (5305 W), 401 M Street SW, Washington, D.C. 20460, Telephone: (800) 424-8802.
  - g. Send the required annual registration fee using approved forms made payable to: Cashier, Department of Community Affairs, State Emergency Response Commission, 2555 Shumard Oak Boulevard, Tallahassee, FL 32399-2149  
[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]
- FW10.** Emissions Unit Descriptions. This permit contains a subsection for each emissions unit that includes a description of the emissions unit. That description is presented for informational purposes only and is not enforceable.

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection A. Emissions Unit 001**

**The specific conditions in this section apply to the following emissions unit:**

EU No.	Brief Description
-001	Johnson Scotch Marine Type Boiler

This emissions unit consists of a Johnson Scotch Boiler. The boiler has a maximum heat input rate is 83.3 MMBtu/hour and a design capacity of 69,000 pounds per hour of steam. The boiler is fired with natural gas as the primary fuel and with No. 2 fuel oil as standby fuel.

*{Permitting Note: This emissions unit is regulated under Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with less than 250 Million BTU per Hour Heat Input, New and Existing Emissions Units.}*

**Essential Potential to Emit (PTE) Parameters**

**A.1. Permitted Capacity.** The maximum allowable heat input rate is as follows:

EU No.	MMBtu/hr Heat Input	Fuel Type
001	83.3 (daily average basis)	Natural gas or New No. 2 fuel oil

*{Permitting Note: A heat input rate of 83.3 MMBtu/hour corresponds to 89,800 cubic feet per hour of natural gas or 660 gallons per hour of new No. 2 distillate fuel oil.}*

[Rules 62-4.160(2), 62-204.800, 62-210.200 (Definitions – Potential to Emit (PTE)) and 62-296.406, F.A.C.; Construction Permit AC29-35256]

**A.2. Methods of Operation.** The fuels that are allowed to be burned in this unit are:

- a. Natural gas and
- b. New No. 2 fuel oil with a maximum sulfur content of 0.05%, by weight.

*{Permitting Note: See Appendix BACT, 0570005-41-AV}*

[Rules 62-213.410 and 62-296.406, F.A.C.; Construction Permit AC29-35256; BACT Determination 0570005-041-AV]

**A.3. Hours of Operation.** This emissions unit may operate continuously (8,760 hours/year). The hours of operation for this emissions unit shall not exceed 400.0 hours in any 12 consecutive month period while fired on New No. 2 fuel oil.

*{Permitting Note: Requested by Permittee, March 3, 1998}*

[Rule 62-210.200(PTE), F.A.C.]

**A.4. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements.

[Rule 62-297.310(2), F.A.C.]

**Emission Limitations and Standards**

*{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}*

Unless otherwise specified, the averaging time for Specific Condition **A.5.** is based on the specified averaging time of the applicable test method.

**A.5. Visible Emissions.** Visible emissions shall not exceed 20% opacity except for one two-minute period per hour during which opacity shall not exceed 40%.

[Rule 62-296.406(1), F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection A. Emissions Unit 001**

**Excess Emissions**

**A.6. Excess Emissions Requirements.** See requirements for “Excess Emissions” contained in Subsection L, Common Conditions.  
[Rule 62-210.700, F.A.C.]

**Test Methods and Procedures**

*{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}*

**A.7. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

<b>Method</b>	<b>Description of Method and Comments</b>
9	Visual Determination of the Opacity of Emissions from Stationary Sources (The test method shall be DEP Method 9 and the minimum duration shall be sixty minutes)

The above methods are described in Rule 62-297.401, F.A.C. and 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.  
[Rule 62-297.401, F.A.C.]

**A.8. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.  
[Rule 62-297.310, F.A.C.]

**A.9. Compliance Tests Prior To Renewal.** Compliance tests shall be performed for the boiler (E.U. ID No. 001) once every 5 years. The tests shall occur during the 12-month period prior to submitting the Title V air operation permit renewal application to demonstrate compliance with the visible emission limits of this emissions unit.  
[Construction Permit 0570005-044-AC; Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

**A.10. Emissions Unit Shutdown Prior To Renewal.**

- a. The operation permit for an emissions unit which has been shut down for six months or more prior to the expiration date of the current operation permit, shall be renewed for a period not to exceed five years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided:
  - 1) the Permittee demonstrates to the Department that the emissions unit may need to be reactivated and used, or that it is the Permittee’s intent to apply to the Department for a permit to construct a new emissions unit at the facility before the end of the extension period; and
  - 2) the emissions unit was operating in compliance with all applicable rules as of the time the source was shut down.
- b. The operation permit for an emissions unit which has been shut down for five years or more prior to the expiration date of the current operation permit shall be renewed for a maximum period not to exceed ten years from the date of shutdown, even if the emission unit is not maintained in operational condition, provided the conditions given in specific condition **A.10.a.** above are met and the Permittee demonstrates to the Department that failure to renew the permit would constitute a hardship, which may include economic hardship.

[Rule 62-210.300(2)(a)3.b. and c., F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

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**Subsection A. Emissions Unit 001**

**Recordkeeping and Reporting Requirements**

- A.11. Test Reports.** The Permittee shall submit the following information with the compliance test report: a statement of the operating mode (heat input rate) and type of fuel used, and a copy of the fuel oil usage log for the month the test was conducted as required by specific condition A.12. Failure to submit the required information, or operating at conditions which do not reflect the normal operating conditions, may invalidate the data.  
[Rules 62-297.310(4)(a)2., 62-297.310(7)(a)5., and 62-4.070(3), F.A.C.]
- A.12. Daily Fuel Records.** If fuel oil was used, to document continuing compliance with specific conditions A.1, A.2, and A.3, the permittee shall maintain daily records of the type of fuel fired, the quantity of fuel fired, the daily average heat input rate (MMBtu/hr) and the total hours of operation of this boiler on fuel oil.  
[Rule 62-4.070(3), F.A.C.]
- A.13. Fuel Oil Analysis and Documentation.** If No. 2 fuel oil was used, then to document compliance with Specific Condition A.2 regarding the type of fuel oil (No. 2 fuel oil) and the fuel oil sulfur limit (0.05% by weight), the permittee shall provide either;
- a. vendor certified documentation that the fuel oil delivered was No. 2 oil, or
  - b. a fuel oil analysis indicating the sulfur content, by weight.
- [Rules 62-213.440(1)(b)2.b. and 62-4.070(3), F.A.C.]

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection B. Emissions Units 002, 003, 007 & 008

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
-002	"A" Sulfuric Acid Plant
-003	"B" Sulfuric Acid Plant
-007	"C" Sulfuric Acid Plant
-008	"D" Sulfuric Acid Plant

This subsection applies to the four sulfuric acid plants (SAP), as described below:

#### Sulfuric Acid Plants "A" and "B"

The "A" Sulfuric Acid Plant has a maximum permitted production rate of 1,300 tons per day of 100% sulfuric acid. The "B" Sulfuric Acid Plant has a maximum permitted production rate of 1,600 tons per day of 100% sulfuric acid. In the process, molten sulfur is combusted (oxidized) with dry air in the sulfur furnace. The resulting sulfur dioxide gas is catalytically converted (further oxidized) to sulfur trioxide in a converter tower. Specifically, the converter tower is a 4-bed tower in the "A" Sulfuric Acid Plant and a 5-bed tower in the "B" Sulfuric Acid Plant. Sulfur trioxide is then absorbed in an approximately 98% H<sub>2</sub>SO<sub>4</sub> stream to form a more concentrated acid in a single stage absorption tower (final stage of production). In the "A" Sulfuric Acid Plant, the heat generated by the chemical reactions in the sulfur furnace and the 4-bed converter tower is recovered to operate two boilers and an economizer. In the "B" Sulfuric Acid Plant, the heat generated by the chemical reactions in the sulfur furnace and the 5-bed converter tower is recovered to operate two boilers, two economizers and two superheaters. (The boilers, economizers and superheaters are not sources of air pollution.)

Sulfur dioxide and sulfuric acid mist (acid mist) emissions at each plant are controlled by a two-stage SO<sub>2</sub> scrubber (with ammonia as the scrubbing liquid) and a high-efficiency mist eliminator and exhausted through an approximately 110-foot stack.

A Sulfuric Acid Mist Emissions Prevention Plan (Plan) for the "A" Sulfuric Acid Plant is included as "Appendix SAM" as required in paragraph 6 of the Consent Order (EPC Case #: 00-0126CCG005) between the Environmental Protection Commission of Hillsborough County (EPC) and CF Industries, Inc. (Respondent).

The following acid cooler replacements are authorized for Sulfuric Acid Plants "A" and "B":

- (1) SAP A - Dryer CIL Acid Cooler
- (2) SAP B - Dryer CIL Acid Cooler
- (3) SAP A - Sulfuric Acid Product Cooler
- (4) SAP B - Sulfuric Acid Product Cooler
- (5) SAP A - Absorber CIL Cooler
- (6) SAP B - Absorber CIL Cooler

The primary purpose of each acid cooler is to maintain acid temperatures below levels that cause excessive corrosion to the process equipment. Due to corrosion and deterioration, periodic repair and replacement of these acid coolers will be necessary and is authorized by this permit. Additionally, the temperature of the acid in the process will only affect the equilibrium vapor pressure of SO<sub>3</sub> of the gas in contact with the acid and therefore, only sulfuric acid mist (SAM) emissions could be affected.

Replacement of acid coolers (1) through (4) will not affect emissions and therefore are not subject to the monitoring, reporting and recordkeeping requirements of Rule 62-212.300(1)(e), F.A.C. In each plant, these acid coolers handle sulfuric acid streams that do not interact directly with the SO<sub>2</sub> converter, absorber tower and SO<sub>2</sub> scrubber.

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection B. Emissions Units 002, 003, 007 & 008

Replacement of acid coolers (5) and (6) could affect emissions and therefore are subject to the monitoring, reporting and recordkeeping requirements of Rule 62-212.300(1)(e), F.A.C. In each plant, these acid coolers handle sulfuric acid streams that interact directly with the SO<sub>2</sub> converter, absorber tower and SO<sub>2</sub> scrubber. SAM and SO<sub>2</sub> emissions are present/generated/or controlled in the SO<sub>2</sub> converter, absorber tower and SO<sub>2</sub> scrubber.

The following SO<sub>2</sub> Stripper modifications are authorized in Construction Permit 0570005-047-AC for Sulfuric Acid Plant "B" and will be completed as outlined in Appendix CP-1: (a) Install a larger carryover return from the SO<sub>2</sub> Stripper (increase diameter from approximately 30 to 36 inches); (b) increase the SO<sub>2</sub> Stripper blower capacity from approximately 6 psig and 1900 scfm to approximately 9 psig and 2400 scfm; (c) replace the SO<sub>2</sub> Stripper mist eliminators other than like-kind; and (d) install a larger diameter SO<sub>2</sub> stripper tower (increase tower diameter from approximately 30 to 36 inches) if needed.

#### Sulfuric Acid Plants "C" and "D"

Each plant is a Monsanto Design, double absorption sulfuric acid plant, with a maximum design production rate of 2,962 tons per day of 100% sulfuric acid and permitted production rate of 2,600 tons per day of 100% sulfuric acid. At the plant, dry air and molten sulfur are ignited in a sulfur burner. The combustion gases, primarily sulfur dioxide (SO<sub>2</sub>), are passed through a 3-stage catalytic converter where SO<sub>2</sub> is converted to sulfur trioxide (SO<sub>3</sub>). The gases, now primarily SO<sub>3</sub>, enter the interpass tower where the SO<sub>3</sub> is absorbed into a sulfuric acid solution. The remaining gases (a mixture of SO<sub>2</sub>, SO<sub>3</sub> and other products) exit the interpass tower through a high-efficiency mist eliminator. The gas then enters the 4th stage of the catalytic converter where additional SO<sub>2</sub> is converted to SO<sub>3</sub>. This gas enters the final tower where SO<sub>3</sub> is again absorbed into a sulfuric acid solution. The remaining gases exit through a high-efficiency mist eliminator to the atmosphere with the limits established by the Best Available Control Technology (BACT). The plant also incorporates a Waste Heat Boiler System for generating steam from the energy produced by the combustion of molten sulfur in air.

The permittee has completed the following modifications to the sulfuric acid plants "C" and "D" which were authorized in Construction Permit 0570005-026-AC/PSD-FL-339B: installed low pressure drop packing in final, drying and interpass absorption towers; modified the de-aerator feed tank pumps; modified the acid cooling system; upgraded the main blower turbine (increase horsepower); installed a new cooling tower cell; and increased sulfur throughput. Work is in progress for the following two items for each of "C" and "D" sulfuric acid plants and expected to be completed in 2013: (a) Install new boiler feed water pumps and motors; and, (b) Structural improvements to several pieces of equipment to safely operate at the new blower discharge pressures.

The following acid cooler replacements are authorized for Sulfuric Acid Plants "C" and "D":

- (1) SAP C - Dryer Acid Cooler
- (2) SAP D - Dryer Acid Cooler
- (3) SAP D - Product Acid Cooler
- (4) SAP C - Product Acid Cooler
- (5) SAP C - Trim Acid Cooler
- (6) SAP D - Trim Acid Cooler
- (7) SAP C - Interpass Acid Cooler
- (8) SAP D - Interpass Acid Cooler
- (9) SAP C - Final Acid Cooler
- (10) SAP D - Final Acid Cooler

The primary purpose of each acid cooler is to maintain acid temperatures below levels that cause excessive corrosion to the process equipment. Due to corrosion and deterioration, periodic repair and replacement of these acid coolers will be necessary and is authorized by this permit. Additionally, the temperature of the acid in the process will only affect the equilibrium vapor pressure of SO<sub>3</sub> of the gas in contact with the acid and therefore, only sulfuric acid mist (SAM) emissions could be affected.

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection B. Emissions Units 002, 003, 007 & 008

Replacement of acid coolers (1) through (6) will not affect emissions and therefore are not subject to the monitoring, reporting and recordkeeping requirements of Rule 62-212.300(1)(e), F.A.C. In each plant, these acid coolers handle sulfuric acid streams that do not interact directly with the SO<sub>2</sub> converter and absorber towers.

Replacement of acid coolers (7) through (10) could affect emissions and therefore are subject to the monitoring, reporting and recordkeeping requirements of Rule 62-212.300(1)(e), F.A.C. In each plant, these acid coolers handle sulfuric acid streams that interact directly with the SO<sub>2</sub> converter, absorber tower and SO<sub>2</sub> scrubber. SAM and SO<sub>2</sub> emissions are present/generated/or controlled in the SO<sub>2</sub> converter and absorber towers.

*{Permitting notes: These emissions units are regulated under Rule 296.402., F.A.C., Emission Standards for Sulfuric Acid Plants; Rule 62-212.300, F.A.C., General Preconstruction Review Requirements; and Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). Sulfuric Acid Plants "C" and "D," and the sulfuric acid mist emissions from Sulfuric Acid Plant "B" are subject to NSPS standards 40 CFR 60 Subpart A and Subpart H. Sulfuric Acid Plant "A" is classified as existing facilities under NSPS rules. Sulfuric Acid Plant "B" (for emissions other than sulfuric acid mist) is also classified as existing facilities under NSPS rules.}*

#### **Essential Potential to Emit (PTE) Parameters**

**B.1. Permitted Capacity.** The maximum allowable production rates are as follows:

E.U. No.	Plant Name	Maximum Production Rate
002	"A" SAP	1,300 tpd of 100% H <sub>2</sub> SO <sub>4</sub>
003	"B" SAP	1,600 tpd of 100% H <sub>2</sub> SO <sub>4</sub>
007	"C" SAP	2,600 tpd of 100% H <sub>2</sub> SO <sub>4</sub>
008	"D" SAP	2,600 tpd of 100% H <sub>2</sub> SO <sub>4</sub>

[Construction Permit 0570005-034-AC; Rules 62-296.340(5)(c) (escape BART), 62-4.160(2) and 62-210.200 (Definitions – Potential to Emit (PTE)), F.A.C.]

**B.2. Hours of Operation.** These emissions units may operate continuously (8,760 hours/year).  
[Rule 62-210.200 (PTE), F.A.C.]

**B.3. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements.  
[Rule 62-297.310(2), F.A.C.]

#### **Emission Limitations and Standards**

*{Permitting Note: The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}*

Unless otherwise specified, the averaging times for Specific Conditions **B.4.-B.7.** are based on the specified averaging time of the applicable test method.

**B.4. Visible Emissions.** Visible emissions shall not exceed 10% opacity (except during start-up, shutdown, or malfunction, pursuant to Rule 62-210.700, F.A.C.).  
[E.U. No. 002: Rule 62-296.402(1)(b)1, F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection B. Emissions Units 002, 003, 007 & 008**

[E.U. No. 003, 007 & 008: Rules 62-296.402(1)(b)1. and 62-204.800(8)(b)11., F.A.C.; 40 CFR 60.83(a)(2) ]

**B.5. SO<sub>2</sub> Emissions Standards.** The maximum allowable emission rates for SO<sub>2</sub> are as follows:

<b>Sulfur Dioxide (SO<sub>2</sub>)</b>			
<b>E.U. No.</b>	<b>Plant Name</b>	<b>Rolling/ block average based on CEMS data*</b>	<b>Consecutive 12-month rolling total based on CEMS data*</b>
002	“A” SAP	<b>3-hour rolling average:</b> 5.6 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced ; { Equivalent to 303.3 lb/hr at 1,300 tpd of 100% H <sub>2</sub> SO <sub>4</sub> } <b>24-hour (daily) block average:</b> 75.8 lb/hr; { Equivalent to 1.4 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced at 1,300 tpd }	332 tons/yr
003	“B” SAP	<b>3-hour rolling average:</b> 3.5 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { Equivalent to 233.3 lb/hr at 1,600 tpd of 100% H <sub>2</sub> SO <sub>4</sub> } <b>24-hour (daily) block average:</b> 93.3 lb/hr; { Equivalent to 1.4 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced at 1,600 tpd }	409 tons/yr
007	“C” SAP	<b>3-hour rolling average:</b> 3.25 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { Equivalent to 352 lb/hr at 2,600 tpd of 100% H <sub>2</sub> SO <sub>4</sub> } <b>24-hour (daily) block average:</b> 303.3 lb/hr; { Equivalent to 2.8 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced at 2,600 tpd }	1,329 tons/yr
008	“D” SAP	<b>3-hour rolling average:</b> 3.25 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { Equivalent to 352 lb/hr at 2,600 tpd of 100% H <sub>2</sub> SO <sub>4</sub> } <b>24-hour (daily) block average:</b> 303.3 lb/hr; { Equivalent to 2.8 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced at 2,600 tpd }	1,329 tons/yr
*As described in Specific Condition No. <b>B.13.</b>			

[Construction Permits 0570005-020-AC, 0570005-021-AC/PSD-FL, 0570005-026-AC/PSD-FL-339B and 0570005-034-AC; Rules 62-296.402, 62-4.340(5)(c) (escape BART), 62-4.070(1)&(2) and 62-213.440(1), F.A.C.; 40 CFR 60, Subpart H]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection B. Emissions Units 002, 003, 007 & 008**

*{Permitting notes:*

- (1) *24-hour (daily) block CEMS average limits were established based on the emissions rate averaging period of 24-hour (daily) used in dispersion modeling. Annual stack testing for SO<sub>2</sub> emissions is not required for compliance demonstration.*
- (2) *The sulfur dioxide emissions standards of Rules 62-296.402, F.A.C. and 40 CFR 60, Subpart H are applicable; however, these standards have been superseded by more stringent requirements established in construction permits. The 3-hour standard for E.U. No. 002 was established in Construction Permits 0570005-020-AC and 0570005-021-AC/PSD-FL, the 3-hour standard for E.U. No. 003 was established in Construction Permit 0570005-021-AC/PSD-FL, and the 3-hour standards for E.U. No. 007 & 008 were established in Construction Permit 0570005-026-AC/PSD-FL 339B.*
- (3) *E.U. No. 002 has two SO<sub>2</sub> 24-hour averages. A 24-hour average of 75.8 lb/hr established was in Permit 0570005-034-AC and a 24-hour average of 250 lb/hr established in 0570005-021-AC/PSD-FL. The more stringent 24-hour average of 75.8 lb/hr is listed as the SO<sub>2</sub> standard in the table above.*

**B.6. SAM Emissions Standard.** The maximum allowable emission rates for SAM are as follows:

<b>Sulfuric Acid Mist (SAM)</b>			
<b>E.U. No.</b>	<b>Plant Name</b>	<b>Allowable Emissions Rate</b>	<b>Annual Allowable Emissions Rate</b>
002	“A” SAP	0.3 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { 1.43 lbs/hr (each hour) }	6.3 tons/yr
003	“B” SAP	0.075 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { 1.8 lbs/hr (each hour) }	7.9 tons/yr
007	“C” SAP	0.093 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { 10.1 lbs/hr }	44.2 tons/yr
008	“D” SAP	0.093 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { 10.1 lbs/hr }	44.2 tons/yr

[Construction Permits 0570005-020-AC, 0570005-026-AC/PSD-FL-339B and 0570005-034-AC; Rules 62-296.402, 62-4.340(5)(c) (escape BART), 62-4.070(1)&(2) and 62-213.440(1), F.A.C.; 40 CFR 60, Subpart H]

*{Permitting notes: The SAM emissions standards of Rules 62-296.402, F.A.C. and 40 CFR 60, Subpart H are applicable; however, these standards have been superseded by more stringent requirements established in construction permits. The emissions standard for E.U. No. 002 was established in Construction Permits 0570005-020-AC and 0570005-034-AC. The emissions standard for E.U. No. 003 was established in Construction Permit 0570005-034-AC. Two emissions standards for E.U. No. 007 & 008 were established in Construction Permits 0570005-026-AC/PSD-FL 339B (11.4 lbs/hr) and 0570005-034-AC(10.1 lbs/hr) and the more stringent emissions standard (10.1 lb/hr) is listed as the SAM emissions standard in the table above. }*

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection B. Emissions Units 002, 003, 007 & 008**

**B.7.** NO<sub>x</sub> Emissions Standard. The maximum allowable emission rates for NO<sub>x</sub> are as follows:

<b>Nitrogen Oxides (NO<sub>x</sub>)</b>			
<b>E.U. No.</b>	<b>Plant Name</b>	<b>Allowable Emissions Rate</b>	<b>Annual Allowable Emissions Rate</b>
002	“A” SAP	0.12 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { 6.5 lb/hr }	28.5 tons/year
003	“B” SAP	0.12 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { 8.0 lb/hr }	35.0 tons/year
007	“C” SAP	0.11 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { 11.9 lb/hr }	52.1 tons/year
008	“D” SAP	0.11 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> Produced; { 11.9 lb/hr }	52.1 tons/year

[Construction Permit 0570005-021-AC/PSD-FL-355, 0570005-026-AC/PSD-FL-339B and 0570005-034-AC; Rules 62-4.340(5)(c) (escape BART), 62-4.070(1)&(2) and 62-213.440(1), F.A.C.]

*{Permitting notes: The NO<sub>x</sub> emissions standard for E.U. No. 002 was established in Construction Permit 0570005-034-AC. The emissions standard for E.U. No. 003 was established in Construction Permits 0570005-021-AC/PSD-FL-355 and 0570005-034-AC. Two standards for E.U. No. 007 & 008 were established in Construction Permits 0570005-026-AC/PSD-FL 339B (13.6 lb/hr) and 0570005-034-AC(11.9 lbs/hr) and the more stringent NO<sub>x</sub> emissions standard (11.9 lb/hr) is listed as the NO<sub>x</sub> emissions standard in the table above. }*

**B.8.** This permit acknowledges that leaks of sulfur dioxide and sulfur trioxide or other fugitive process emissions that do not pass through a stack may occur as part of routine operations. Best operation practices to minimize these emissions shall be adhered to and shall include regular inspections and the prompt repair or correction of any leaks or other fugitive emissions.

[Construction Permits AC29-200648, AC29-186931/PSD-FL-155; 0570005-026-AC/PSD-FL-339B, 0570005-020-AC and 0570005-021-AC/PSD-FL-355]

**B.9.** The 4<sup>th</sup> converter pass of the “C” and “D” sulfuric acid plants contains approximately 165,000 liters cesium promoted vanadium catalyst. A change to non-cesium promoted catalyst or switch to another SO<sub>2</sub> control strategy shall not occur without the Department’s review and approval and shall require submittal of a permit modification request to revise the Best Available Control Technology Determination.

[Construction Permits 0570005-019-AC/PSD-FL-339, 0570005-026-AC/PSD-FL 339B]

**Excess Emissions**

**B.10.** Excess Emissions Requirements. See requirements for “Excess Emissions” contained in Subsection L, Common Conditions.

[Rule 62-210.700, F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection B. Emissions Units 002, 003, 007 & 008**

**Authorized Maintenance**

**B.11. Acid Cooler Replacement.** This permittee is authorized to replace the following acid coolers on a temporary or on a long term/permanent basis:

<b>E.U. No.</b>	<b>Plant Name</b>	<b>Acid Cooler Descriptions</b>
002	“A” SAP	- Dryer CIL Acid Cooler - Sulfuric Acid Product Cooler
003	“B” SAP	- Dryer CIL Acid Cooler - Sulfuric Acid Product Cooler
007	“C” SAP	- Dryer Acid Cooler - Product Acid Cooler - Trim Acid Cooler
008	“D” SAP	- Dryer Acid Cooler - Product Acid Cooler - Trim Acid Cooler

*{Permitting Note: Replacement of the acid coolers listed above will not affect emissions. In each plant, these acid coolers handle sulfuric acid streams that do not interact directly with the SO<sub>2</sub> converter, absorber tower and SO<sub>2</sub> scrubber. Sulfuric Acid Mist (SAM) and SO<sub>2</sub> emissions are present/generated/or controlled in the SO<sub>2</sub> converter, absorber tower and SO<sub>2</sub> scrubber}*

[Construction Permit 0570005-047-AC, F.A.C.; Effective Date: 04/20/2012]

**B.12. Acid Cooler Replacement (with 5 year monitoring).** This permittee is authorized to replace the following acid coolers on a temporary basis or on a long term/permanent basis. The 5 year monitoring, reporting and recordkeeping requirements of Rule 62-212.300(1)(e), F.A.C. will become applicable with each cooler replacement:

<b>E.U. No.</b>	<b>Plant Name</b>	<b>Acid Cooler Descriptions</b>
002	“A” SAP	- Absorber CIL Cooler
003	“B” SAP	- Absorber CIL Cooler
007	“C” SAP	- Interpass Acid Cooler - Final Acid Cooler
008	“D” SAP	- Interpass Acid Cooler - Final Acid Cooler

*{Permitting Note: Replacement of the acid coolers could affect emissions. In each plant, these acid coolers handle sulfuric acid streams that interact directly with the SO<sub>2</sub> converter, absorber tower and SO<sub>2</sub> scrubber. Sulfuric Acid Mist (SAM) and SO<sub>2</sub> emissions are present/generated/or controlled in the SO<sub>2</sub> converter, absorber tower and SO<sub>2</sub> scrubber}*

[Construction Permit 0570005-047-AC, F.A.C.; Effective Date: 04/20/2012]

**Continuous Monitoring Requirements**

**B.13. SO<sub>2</sub> Continuous Emissions Monitoring System (CEMS).**

- a. In accordance with the New Source Performance Standards (NSPS) (40 CFR 60, Subpart H) requirements for sulfuric acid plants, the permittee shall continue to properly calibrate, maintain and operate a CEMS to measure and record emissions of SO<sub>2</sub>.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection B. Emissions Units 002, 003, 007 & 008

- b. 40 CFR 60, Subpart H and Construction Permits 0570005-020-AC, 0570005-021-AC/PSD-FL and 0570005-026-AC/PSD-FL-339B requires the use of CEMS to be used to determine compliance with the 3-hour rolling average emissions limit for SO<sub>2</sub>.
- c. The BART exemption determination (Construction Permit 0570005-034-AC) requires the use of an SO<sub>2</sub> CEMS to be used to demonstrate continuous compliance with the 24-hour (daily) block average SO<sub>2</sub> emissions standards and limits.
- d. The CEMS shall be operated in compliance with 40 CFR 60, Appendix A, General Provisions; 40 CFR 60, Appendix B, Performance Specification 2; 40 CFR 60, Appendix F, Quality Assurance Procedures for Gas CEMS, and other Department-approved QA/QC plans.
- e. The CEMS shall calculate and record emission rates in units of pounds SO<sub>2</sub> per ton of 100 percent sulfuric acid produced. Each operating day, the rolling averages of the SO<sub>2</sub> emission rate for the 3 hour periods shall be calculated and recorded. Emissions shall be calculated in units of pounds of SO<sub>2</sub> per ton of 100 percent acid produced using one of the methods specified in 40 CFR 60.84. The 24-hour block averages shall be calculated in units of pounds per hour. The permittee may select either 6am-6am or 12am-12am for the 24-hour block period. The 24-hour block period shall be adjusted to a 23-hour or 25-hour block period to accommodate daylight savings time. Averages are to be calculated as the arithmetic mean of each monitored operating hour in which sulfur is burned in the unit and at least two emission measurements are recorded at least 15 minutes apart. Data taken during periods of startup, or when sulfur is not burned in the unit, or when the CEMS is out of control as defined in 40 CFR 60, Appendix F, Section 5.2, shall be excluded from the 3-hour rolling and 24-hour block averages. Data recorded during periods of shutdown, malfunction, load change, and continuous operating periods shall be included in the calculation of the 3-hour rolling and 24-hour block averages. When demonstrating compliance with the 12-month rolling total, all valid CEMS emissions data shall be used.
- f. To the extent the monitoring system is available to record emissions data, the CEMS shall be operated and shall record data at all operating hours when sulfur is burned in the unit, including periods of startup, shutdown, load change, continuous operation and malfunction. Monitor downtimes and excess emissions based on 3-hour averages, which include startup emissions, shall be reported on a quarterly basis using the SUMMARY REPORT in 40 CFR 60.7. A detailed report of the cause, duration, magnitude, and corrective action taken or preventative measures adopted for each excess emission occurrence, and a listing of monitor downtime occurrences shall accompany the SUMMARY REPORT when the total duration of excess emissions is 1% or greater or if the monitoring system downtime is 5% greater of the total monitored operating hours.
- g. The monitoring device shall meet the applicable requirements of Chapter 62-204, F.A.C., 40 CFR 60, Appendix F, and 40 CFR 60.13, including certification of each CEMS in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) Notification Requirements. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the FINAL location of each stack probe shall be provided to the Department for review at least 30 days prior to installation of a new CEMS.

[Rules 62-296.340(5)(c) (escape BART), 62-4.070(1)&(3), 62-213.440(1) and 62-204.800, F.A.C.; 40 CFR 60, Subpart H; Construction Permits 0570005-020-AC, 0570005-021-AC/PSD-FL, 0570005-026-AC/PSD-FL-339B and 0570005-034-AC]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection B. Emissions Units 002, 003, 007 & 008**

**Test Methods and Procedures**

*{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}*

- B.14. Test Methods.** Required tests to demonstrate compliance with the Nitrogen Oxide (NOx), Sulfuric Acid Mist (Acid Mist) and Visible Emissions (VE) Standards, shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
8	Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rules 62-296.402(3), 62-297.310(4)(a)2. and 62-297.401, F.A.C., Construction Permit 0570005-026-AC/PSD-FL 339B]

- B.15. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.

[Rule 62-297.310, F.A.C.]

- B.16. Annual Compliance Tests Required.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), the sulfuric acid plants (SAPs “A”, “B”, “C”, and “D”) shall be tested to demonstrate compliance with the emissions standards for Sulfuric Acid Mist (Acid Mist), Nitrogen Oxide (NOx) and Visible emissions (VE). Testing procedures shall be consistent with the requirements of Chapter 62-297, F.A.C.

[Rules 62-296.402 and 62-297.310(8)(b), F.A.C.]

- B.17. Acid Cooler Replacement Compliance Tests.** Each time one of the acid coolers listed in Specific Condition No. B.12. is replaced; the affected sulfuric acid plants (i.e., SAPs “A”, “B”, “C”, or “D”) shall be tested to demonstrate compliance with the emissions standards for Sulfuric Acid Mist (Acid Mist) and visible emissions (VE). The tests shall be conducted no later than 90 days after initial operation of the unit following the replacement of acid cooler.

[Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.; Effective Date: 04/20/2012]

**Recordkeeping and Reporting Requirements**

- B.18.** A continuous emission monitoring system (CEMS) to determine Sulfur Dioxide (SO<sub>2</sub>) emissions from this source shall be operated, calibrated, and maintained in accordance with Rule 62-296.402(4), F.A.C. The Permittee shall use the equation cited in 40 CFR 60.84(d) to convert CEM data into pounds of SO<sub>2</sub> per ton of 100% sulfuric acid produced.

[40 CFR 60.84 and Rule 62-296.402(4), F.A.C., and Construction Permits AC29-200648 and 0570005-020-AC]

*{Permitting note: See 40 CFR 60, Subpart H for equation cited in 40 CFR 60.84(d).}*

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection B. Emissions Units 002, 003, 007 & 008

- B.19.** The Permittee shall operate and maintain equipment and/or instruments necessary to determine the daily production rate of H<sub>2</sub>SO<sub>4</sub>. The metered production will be confirmed within 10% of its true value by comparison with the sulfur consumption at the end of each month.  
[Rule 62-297.310(5)(b), F.A.C.]
- B.20.** Daily H<sub>2</sub>SO<sub>4</sub> Production Records. To document compliance with the maximum allowable production rates of Specific Condition No. **B.1**, the Permittee shall maintain daily records of H<sub>2</sub>SO<sub>4</sub> production. These records shall be based upon data obtained from acid flow meters measuring acid flow rates to storage as well as transfers between plants. Flow meter information and documentation as to how daily production rates were calculated shall be included as part of the records.  
[Rule 62-4.070(3), F.A.C. and Permittee letter of November 16, 1993 submitted as a supplement to permit application for Plants “A” and “B”]
- B.21.** Daily and Monthly SO<sub>2</sub> Emissions Records. A CEMS is used to determine compliance with the sulfur dioxide emission limits in Specific Condition No. **B.5**. To document ongoing compliance with the sulfur dioxide emissions limits, the permittee shall maintain the following records for each day of the month:
- daily acid production (in tons as 100% H<sub>2</sub>SO<sub>4</sub>);
  - daily hours operated;
  - 24-hour (daily) block average SO<sub>2</sub> emission rate (in lbs/hr);
  - maximum 3-hr. average SO<sub>2</sub> emission rate (in lbs/ton of 100% H<sub>2</sub>SO<sub>4</sub> produced);
  - total SO<sub>2</sub> emission (in tons) for the most recent month; and
  - total SO<sub>2</sub> emissions (in tons) for the most recent consecutive 12 month period.
- The monthly records shall also show the sulfur dioxide emission limits in Specific Condition No. **B.5**.  
[Rule 62-4.070(3), F.A.C., Construction Permits AC29-200648 and 0570005-020-AC, and Appendix 1 to Permittee letter of November 16, 1993 submitted as a supplement to permit application]
- B.22.** Quarterly SO<sub>2</sub> Excess Emissions Reports. A report shall be submitted to the Air Compliance Section of the Environmental Protection Commission of Hillsborough County (EPCHC) and the Department within 30 days following each calendar quarter detailing all periods of excess sulfur dioxide emissions recorded by the CEMS during that three month period. The report shall include the magnitudes of the excess emissions, the duration of each excess emission period, the cause of the abnormal event, and the action taken to correct it. The excess emission report shall also include a statement of all periods during the quarter when the sulfur dioxide monitoring system was inoperative, reason for the downtime and action taken.  
[Rules 62-296.402(5), 62-4.070(3) and 62-204.800, F.A.C.; 40 CFR 60.7(c)]
- B.23.** Abnormal Event Reports. The Permittee shall promptly notify \* the EPCHC’s Air Management Division of any abnormal event \*\* associated with the operation of the source which results in elevated emissions. Notification shall include the following:
- Facility and Source Name;
  - Cause;
  - Time and duration of the abnormal event;
  - CEM readings or magnitude of the emissions;
  - Steps taken to reduce emissions if the abnormal event is still occurring;
  - Identification of person reporting the abnormal event.
- A reportable abnormal event does not necessarily constitute a permit violation.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection B. Emissions Units 002, 003, 007 & 008

\*For purposes for this condition, prompt notification shall mean "within thirty (30) minutes following detection of the reportable event by the Permittee as long as reasonable care is taken in monitoring the source."

\*\*For purposes of this condition, abnormal events shall, in part, include:

For all startups (hot and cold): the time when the unit will begin to burn sulfur, and shutdowns and malfunctions as defined in 40 CFR 60.2 and Rule 62-210.200, F.A.C.

[Construction Permits AC29-200648 and AC29-186931/PSD-FL-155]

- B.24. Acid Cooler Replacement Records.** The permittee shall maintain records listing the all acid cooler replacement for the acid coolers listed in Specific Condition No. B.12. The records should include the emissions unit number, the name of the acid cooler to be replaced, the date the replacement occurs, and general specifications for the old acid cooler and for the replacement acid cooler (i.e., heat transfer area, number of tubes/tube length, and shell diameter). The records shall be kept in a readily accessible location.  
[Rule 62-4.070, F.A.C.]

#### **The Following Common Conditions Apply to EU Nos. 002 and 003 (“A” & “B” SAPs) Only:**

- B.25.** Based upon the increase in actual emission of sulfuric acid mist associated with the modifications permitted on the air construction permit AC29-200648, Sulfuric Acid Plant “B” is subject to and shall comply with the Federal New Source Performance Standards (NSPS) 40 CFR 60.80-85 (Subpart H - Standards of Performance for Sulfuric Acid Plants) as they apply to emissions of sulfuric acid mist only. {Note: “A” Sulfuric Acid Plant is not subject to 40 CFR 60 Subpart H}  
[Rule 62-204.800, F.A.C.]
- B.26.** “A” and “B” Sulfuric Acid Plants shall comply with Appendix SAM, “Sulfuric Acid Mist Emissions Prevention Plan”.  
[Consent Order (EPC Case #: 00-0126CCG005); Applicant request; and Construction Permit 0570005-020-AC]
- B.27.** If the permittee requests relaxation of any of the federally enforceable limits in Air Construction permit AC29-200648, then the Department will determine whether the NSR requirements of Rule 62-212.400, F.A.C. shall apply. The Department determined in the Technical Evaluation for Air Construction permit 0570005-020-AC that, since continuous emissions monitors for SO<sub>2</sub> would be used for the method of compliance, and since the Sulfuric Acid Mist Emissions Prevention Plan will be applied to both “A” and “B” Sulfuric Acid Plants, elimination of the required monitoring of SO<sub>2</sub> scrubber parameters would not be a relaxation of any federally enforceable limits.  
[Rule 62-212.400(2)(g), F.A.C., and Construction Permits AC29-200648 and 0570005-020-AC]

#### **Other Requirements**

- B.28. Federal Rule Requirements.** Sulfuric Acid Plants “B”, “C” and “D” (E.U. Nos. 003, 004 & 008) are subject to the applicable requirements contained in 40 CFR 60 Subpart A - General Provisions and 40 CFR 60 Subpart H – Standards of Performance for Sulfuric Acid Plants.  
*{Permitting Note: Sulfuric Acid Plant “B” is subject to 40 CFR 60, Subpart H for sulfuric acid mist only. Please see “Appendix NSPS - 40 CFR 60 Subpart H” and “Appendix NESHAP - 40 CFR 63 Subpart AA”}*

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

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**Subsection B. Emissions Units 002, 003, 007 & 008**

[Rules 62-213.440, F.A.C. and 62-204.800(8), F.A.C. and 40 CFR 60, Subparts A and H]

- B.29.** Notification of Operation Commencement – Following Acid Cooler Replacement. The permittee shall notify the Compliance Authority in writing of the date of commencing operation of Sulfuric Acid Plant “A”, “B”, “C” or “D” following the replacement of any acid coolers listed in Specific Condition No. B.12. no later than fifteen (15) days after that date. Commencing operation means setting into operation of any emissions unit for any purpose. The notification shall include a copy of the “Acid Cooler Replacement Records” specified in Specific Condition B.24.  
[Construction Permit 0570005-047-AC, F.A.C, Rule 62-4.070 and 62-210.200, F.A.C., (Definition of Commence Operation); Effective Date: 04/20/2012]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Emissions Units 004 & 009**

**The specific conditions in this section apply to the following emissions units:**

<b>EU No.</b>	<b>Brief Description</b>
-004	“A” Phosphoric Acid Plant
-009	“B” Phosphoric Acid Plant

This subsection applies to the two phosphoric acid plants (PAP), as described below.

“A” Phosphoric Acid Plant

The “A” Phosphoric Acid Plant has a maximum permitted production rate of 1,699 tons per day of 100% phosphoric acid. Fluoride emissions from this plant are controlled by a cyclonic scrubber followed by a packed bed scrubber with "Kimre" packing or equivalent packing. Typical gas flow rate through the scrubbers is approximately 43,000 DSCFM. The scrubber system uses pond water as the scrubbing liquid.

“B” Phosphoric Acid Plant

The “B” Phosphoric Acid Plant has a maximum permitted production rate of 2,530 tons per day of 100% phosphoric acid. Fluoride emissions from this plant are controlled by a packed bed scrubber with "Kimre" packing or equivalent packing. Typical gas flow rate through the scrubber is approximately 48,000 DSCFM. The scrubber uses pond water as the scrubbing liquid.

Other Activities

For each plant (“A” PAP and “B” PAP), phosphoric acid transfers to and from the storage tanks and operation of the evaporation process is permitted up to a maximum of 730 hours per year, during periods when the plants scrubbing system is not operating due mainly to scrubber maintenance activities.

*{Permitting notes: Both phosphoric acid plants (“A” and “B” Plant), were modified after October 22, 1974 and are subject to the requirements of Rule 62-296.403, F.A.C. and 40 CFR 63, Subpart AA.}*

**Essential Potential to Emit (PTE) Parameters**

**C.1.a Permitted Capacity.** The process input rates corresponds to the "equivalent P<sub>2</sub>O<sub>5</sub> feed". The following maximum daily average rates shall not be exceeded:

<b>E.U. ID No.</b>	<b>Plant Name</b>	<b>Maximum Process Input Rate</b>
004	“A” PAP	70.8 tons/hour of 100% P <sub>2</sub> O <sub>5</sub> (daily average)
		1,699 tons/day of 100% P <sub>2</sub> O <sub>5</sub>
		620,208 tons per any consecutive 12 month of 100% P <sub>2</sub> O <sub>5</sub>
009	“B” PAP	105.4 tons/hour of 100% P <sub>2</sub> O <sub>5</sub> (daily average)
		2,530 tons/day of 100% P <sub>2</sub> O <sub>5</sub>
		923,304 tons per any consecutive 12 month of 100% P <sub>2</sub> O <sub>5</sub>

The permitted process input rate for each emissions unit shall be the rate during the most recently accepted compliance test plus 10%; not to exceed the permitted maximum process input rate (tons/hour 100% rock P<sub>2</sub>O<sub>5</sub>) of the emissions unit.

[Rules 62-4.160(2) and 62-210.200(Definitions – Potential to Emit (PTE)), F.A.C.; Construction Permit 0570005-021-AC/PSD-FL-355]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 004 & 009

*{See specific conditions C.13 for NESHAP requirements for monitoring and recordkeeping of the equivalent P<sub>2</sub>O<sub>5</sub> feed rate.}*

#### **C.1.b. Restricted Operation**

- a. Each plant is allowed to operate continuously, i.e., 8760 hours/year.
- b. When the scrubbing system in the “A” PAP is not operating, the hours of transferring phosphoric acid to and from storage tanks and operation of evaporation process in the “A” PAP are limited to 730 hours per year.
- c. When the scrubbing system in the “B” PAP is not operating, the hours of transferring phosphoric acid to and from storage tanks and operation of evaporation process in the “B” PAP are limited to 730 hours per year.

[Construction Permit 0570005-037-AC; Rules 62-4.070(3) and 62-210.200 (PTE), F.A.C.]

#### **Emission Limitations and Standards**

- C.2.** Total fluorides (F) emissions shall not exceed any of the following limits:

<b>E.U. ID No.</b>	<b>Plant Name</b>	<b>Maximum Total Fluorides (F) Emissions</b>
004	“A” PAP	0.012 pound/ton of “equivalent P <sub>2</sub> O <sub>5</sub> feed”
		0.85 pounds/hour
		3.7 tons/year
009	“B” PAP	0.012 pound/ton of “equivalent P <sub>2</sub> O <sub>5</sub> feed”
		1.26 pounds/hour
		5.5 tons/year
“equivalent P <sub>2</sub> O <sub>5</sub> feed” means the quantity of phosphorus, expressed as phosphorus pentoxide, fed to the process as rock P <sub>2</sub> O <sub>5</sub> .		

[Construction Permits 0570005-021-AC/PSD-FL-355 and 0570005-044-AC]

*{Permitting Note: The above limits are more stringent than those specified in Rule 62-296.403, F.A.C.; 40 CFR 60 Subpart T; and 40 CFR 63, Subpart AA}*

- C.3.** The Permittee shall determine compliance with the total fluorides emissions rates in Specific Condition **C.2.** using the calculations and procedures specific in 40 CFR 63.606(c)  
[Rule 62-204.800(11), F.A.C.; 40 CFR 63.606(c)]

#### **Excess Emissions**

- C.4.** Excess Emissions Requirements. See requirements for “Excess Emissions” contained in Subsection L, Common Conditions.  
[Rule 62-210.700, F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Emissions Units 004 & 009**

**Monitoring of Operations**

- C.5.** The Permittee shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of the phosphorus-bearing feed to the process. The monitoring system shall have an accuracy of  $\pm 5\%$  over its operating range.  
[Rule 62-204.800, F.A.C.; 40 CFR 63.605(a)]
- C.6.** No phosphoric acid process water evaporative cooling towers shall be operated at this facility. CF operates only fresh water cooling towers.  
[Rule 62-4.070(3), F.A.C.]
- C.7.** The permittee shall maintain, calibrate and operate the following monitoring systems for each scrubber in the process scrubbing system:
- a. Pressure Drop.** A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of  $\pm 5\%$  over its operating range.
  - b. Scrubbing Liquid Flow Rate.** A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of  $\pm 5\%$  over its operating range.
- [Rule 62-204.800(11), F.A.C.; 40CFR 63.605(c)(1) & (2)]

**Test Methods and Procedures**

*{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}*

- C.8. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method
13B	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode Method (without distillation)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rule 62-297.401, F.A.C.; 40 CFR 63.606(b) (Subpart AA)]

- C.9. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.  
[Rule 62-297.310, F.A.C.]
- C.10. Annual Compliance Tests Required.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), each emissions unit shall be tested to demonstrate compliance with the emissions standards for Fluoride.  
[Rule 62-297.310(7), F.A.C.]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 004 & 009

#### Recordkeeping and Reporting Requirements

- C.11. Test Report Records.** A summary of the following process data shall be included in any compliance test report:
- the process input rate in tons/hour and tons/day expressed as 100% rock P<sub>2</sub>O<sub>5</sub>
  - the start and end time for the rate determination.
- [Rule 62-4.070(3), F.A.C.; Construction Permits 0570005-008-AC, 0570005-009-AC and 0570005-44-AC]
- C.12. Daily Records.** To document compliance with the specific conditions C.1., the permittee shall maintain daily records of the following information:
- The Facility ID (0570005) and Emission Unit ID Numbers.
  - The date.
  - For each plant:
    - The hours of operation,
    - The equivalent P<sub>2</sub>O<sub>5</sub> feed to the plant in tons/day,
    - The average equivalent P<sub>2</sub>O<sub>5</sub> feed rate to the plant in tons/hr (where the average rate shall be based on the daily equivalent P<sub>2</sub>O<sub>5</sub> feed to the plant and the actual hours of operation for the day).
  - The hours of operation of phosphoric acid transfer and the evaporation process in each of the “A” and “B” PAPs when the scrubbing system in each PAP is not operating.
- Equivalent P<sub>2</sub>O<sub>5</sub> feed” shall be determined according to the procedure specified in 40 CFR 63.605(b).  
[Rules 62-4.070(3) and 62-204.800(8), F.A.C.; Plant A - 40 CFR 63, Subpart AA]
- C.13.** The Permittee shall maintain a daily record of equivalent P<sub>2</sub>O<sub>5</sub> feed by first determining the total mass rate of the phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of 40 CFR 63.605(a) and using the calculation method in 40 CFR 63.606(c)(3).  
[Rule 62-204.800(11), F.A.C., 40 CFR 63.605(b)(1)]
- C.14.** The Permittee shall maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to 40 CFR 63.605(d)(1) or (2).  
[Rule 62-204.800(11), F.A.C.; 40 CFR 63.604]
- C.15.** The owner or operator of an affected source shall comply with the reporting requirements for Performance Test Reports, Excess Emissions Reports and Summary Reports specified in 40 CFR 63.627.  
[Rule 62-204.800(11), F.A.C.; 40 CFR 63.607]

#### Other Requirements

- C.16. Federal Rule Requirements.** This emissions unit is subject to the applicable requirements contained in 40 CFR 63, Subpart AA - National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants and 40 CFR 63, Subpart A - General Provisions. The requirements of 40 CFR 63, Subpart AA apply to phosphoric acid manufacturing plants and the following emissions points which are components of a wet-process phosphoric acid process line: reactors, filters, evaporators, and hot wells. This emissions unit is also subject to the requirements of 40 CFR 60, Subpart T; however, when in compliance with all of the requirements of 40 CFR 63 Subpart AA, the phosphoric acid plants are exempted from the requirements of 40 CFR 60, Subpart T.
- {Permitting Note: See “Appendix NESHAP - 40 CFR 63 Subpart AA” and “Appendix NESHAP - 40 CFR 63, Subpart A”}*

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

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**Subsection C. Emissions Units 004 & 009**

[Rules 62-213.440 and 62-204.800, F.A.C.; 40 CFR 63 Subpart A and 40 CFR 63 Subpart AA]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection D. Emissions Unit 010**

**The specific conditions in this section apply to the following emissions units:**

<b>EU No.</b>	<b>Brief Description</b>
-010	"A" DAP/MAP Plant

This plant produces granulated ammonium phosphate fertilizer products DAP and MAP. This plant includes a reactor, granulator, dryer, product cooler, mills, and screens. The dryer is fired with natural gas or No. 5 fuel oil, or a better grade, i.e., No. 2, 3, or 4 (back-up); at a maximum heat input rate of 28.5 MMBtu/hr. The gas streams from the plant's processes (i.e., reactor/granulator process, process dryer, product dust collection system and process product cooler) pass through a series of scrubbers before discharging into a shared abatement scrubber. The abatement scrubber discharges to the atmosphere and uses water as the scrubbing liquid to control the fluoride concentration in the discharge gas stream. Scrubber system configurations for each process are described in the tables below.

Reactor and Granulator Gas Stream Pollution Control Equipment:

Stage I – Venturi Scrubber	Venturi Scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Stage II - Primary Scrubber	Ducon Envir. Tech. Series 435X-RL approximately 9' O.D. 27' long scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Stage III - Fume Downcomer	Fume Downcomer which consists of duct work with fresh water sprays. The water is from the abatement scrubber.
Abatement Scrubber*	Ducon Envir. Tech. Size approximately 15' x 28' scrubber with fresh water as the scrubbing liquid.

Dryer Gas Stream & Mills and Screens Dust Collection Pollution Control Equipment:

Dust Cyclones (Dryer/Mills/ Screens)	Fly Ash Arrestor Corp. – approximately 59 3/8" dia. each. (4 cyclones)
Stage I – Venturi Scrubber	Venturi Scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Stage II - Primary Dryer Scrubber	Ducon Envir. Tech. approximately 11' O.D. x 30' scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Stage III - Dryer Downcomer	Fume Downcomer which consists of duct work with fresh water sprays. The water is from the abatement scrubber.
Abatement Scrubber*	(See previous abatement scrubber description)

Product Cooler Gas Stream Pollution Control Equipment:

Dust Cyclones	Fly Ash Arrestor Corp. – approximately 65" dia. each. (4 cyclones)
Abatement Scrubber*	(See previous abatement scrubber description)

*Note: In the previous operation permit (0570005-032-AV), the product cooler pollution control equipment included a product cooler down-comer in the list of control equipment; however, Construction Permit 0570005-*

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection D. Emissions Unit 010**

030-AC has changed the method of operation and the product cooler down-comer now operates as a duct with a duct sprayer.

\* This plant has one common (shared) abatement scrubber which is the final control device for each process gas streams described in the tables above.

*{Permitting Notes: (a) The addition of Urea Ammonium Nitrate (UAN) solution or an equivalent supplemental nitrogen source to the granulation plant/s during the production of Diammonium Phosphate (DAP) is to increase the nitrogen concentration of the DAP product and is an integral part of the process. (b) UAN typically contains 45% by weight ammonium nitrate and 35% by weight urea as an aqueous solution and does not increase emissions from the DAP granulator.}*

**Essential Potential to Emit (PTE) Parameters**

**D.1. Permitted Capacity.** This emissions unit is limited to the following maximum daily average P<sub>2</sub>O<sub>5</sub> input rates:

Permitted Variable	DAP Mode	MAP Mode
P <sub>2</sub> O <sub>5</sub> Input (tons/hour)	29.53	33.30

[Construction Permit 0570005-034-AC; Rules 62-296.340(5)(c) (escape BART), 62-4.160(2) and 62-210.200 (Definitions – Potential to Emit (PTE)), F.A.C.]

*{Permitting Note: See Condition D.16 regarding the NESHAP requirements for monitoring and recordkeeping of the equivalent P<sub>2</sub>O<sub>5</sub> feed rate.}*

**D.2. Hours of Operation.** The plant is allowed to operate continuously, i.e., 8760 hours/year.  
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

**D.3. Authorized Fuels.** To control sulfur dioxide emissions from the granulation plant’s product dryer, natural gas shall be fired as the primary fuel. No. 5 fuel oil or better grade fuel oil (i.e., No. 2, 3 or 4) may be fired as a back-up fuel.  
[Construction Permit 0570005-034-AC; Rules 62-4-070(1)&(3) and 62-210.200 (PTE), F.A.C.]

**D.4. Maximim Heat Input Rate.** The maximum heat input rate to the granulation plant’s product dryer is 28.5 MMBTU/hr., based on a daily average.  
[Construction Permit 0570005-034-AC; Rules 62-4-070(1)&(3) and 62-210.200 (PTE), F.A.C.]

**Emission Limitations and Standards**

**D.5. Particulate Matter Emissions Standards.** The particulate emissions shall not exceed the following emissions standards:

- a. 13.0 lbs./hr.
- b. 56.9 tons/yr.

[Construction Permits 0570005-021-AC/PSD-FL-355 and 0570005-034-AC; Rules 62-296.340(5)(c) (escape BART) and 62-296.700(2)(b) (escape PM RACT), F.A.C.]

**D.6. Fluorides Emissions Standards.** This plant shall not exceed the maximum allowable total fluorides emission rate of 0.06 lbs./ton of P<sub>2</sub>O<sub>5</sub> input.

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection D. Emissions Unit 010**

*{Permitting note: While operating in DAP Mode at the maximum permitted capacity of 29.53 tons/hr. of P<sub>2</sub>O<sub>5</sub> input, the fluoride emission rate is equivalent to 1.77 lbs./hr. and 7.76 tons/yr. While operating in MAP Mode at the maximum permitted capacity of 33.30 tons/hr. of P<sub>2</sub>O<sub>5</sub> input, the fluoride emission rate is equivalent to 2.00 lbs./hr. and 8.75 tons/yr.}*

[Rule 62-296.403, F.A.C.; 40 CFR 63.622(a)]

- D.7.** The Permittee shall determine compliance with the applicable total fluorides emissions rate in specific condition **D.6.** using the calculations and procedure specified in 40 CFR 63.626(c). The P<sub>2</sub>O<sub>5</sub> content (R<sub>p</sub>) of the feed shall be determined using as appropriate the methods specified in the “Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Tenth Edition, 2009”.

*{Permitting Note: 40 CFR 63.626(c)(3)(ii) (in 40 CFR 63, Subpart BB) currently references the “Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991”. This permit was updated to require use of the latest version of the “Book of Methods Used and Adopted by The Association Of Florida Phosphate Chemists” at the request of the permittee.}*

[Rule 62-204.800(11), F.A.C.; 40 CFR 63.626(c)]

**Excess Emissions**

- D.8.** Excess Emissions Requirements. See requirements for “Excess Emissions” contained in Subsection L, Common Conditions.

[Rule 62-210.700, F.A.C.]

**Monitoring of Operations**

- D.9.** The Permittee shall comply with the attached Alternative Monitoring Plan, Appendix AMP, **or** with the monitoring requirements of 40 CFR 63.625(f). When complying with the AMP, the Permittee shall maintain daily averages (of the abatement scrubber liquid water flow and pH; and water flow to the downcomer header) within the allowable ranges established pursuant to the AMP.

*{Permitting Note: See “Appendix AMP, Alternative Monitoring Plan.”}*

[Rule 62-204.800(11), F.A.C.; 40 CFR 63.624 and 63.625(f)]

**Test Methods and Procedures**

*{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}*

- D.10.** Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Method for Determining Particulate Matter Emissions (All PM is assumed to be PM <sub>10</sub> .)
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method
13B	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode Method (without distillation)

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection D. Emissions Unit 010

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rule 62-297.401, F.A.C.; 40 CFR 63.626(b)]

- D.11. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. This emissions unit shall be tested at the maximum permitted P<sub>2</sub>O<sub>5</sub> input rate (29.53 TPH DAP or 33.30 TPH of MAP).

[Rules 62.070(3) and 62-297.310(2), F.A.C.]

- D.12. Annual Compliance Tests Required.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), this emissions unit shall be tested to demonstrate compliance with the emissions standards for particulate matter and fluoride.

[Rule 62-297.310(7), F.A.C.; 40 CFR 63.626(a)(1)]

- D.13. Additional Compliance Tests Required.** This emissions unit shall be re-tested to demonstrate compliance with the emissions standards for particulates matter and fluoride within thirty days of:

- a change in production mode (e.g., DAP to MAP or MAP to DAP), and/or
- upon exceeding the 400th hour during any federal fiscal year when switching from natural gas to No. 5 fuel oil (or a better grade, i.e., No. 2, 3, or 4).

More than one test per any federal fiscal year is not required for any production mode change or fuel switching condition.

[Rules 62.070(3) and 62-297.310(7)(a)5, F.A.C.]

### **Recordkeeping and Reporting Requirements**

- D.14. Test Report Records.** A summary of the following process data shall be included in any compliance test report:

- Tons/hr. of P<sub>2</sub>O<sub>5</sub> input.
- Fuel used to fire the dryer.
- Average heat input rate to the dryer.
- A copy of the logs and/or charts for the operating parameters required in the Daily Records (Specific Condition No. D.15).

Failure to submit the above process data with the test report or operating under conditions during testing which are not representative of normal operating conditions may invalidate the tests and fail to provide reasonable assurance of compliance.

[Rules 62-297.310(8)(c), and 62-4.070(3), F.A.C.]

*{Permitting Note: See the applicable monitoring, reporting, recordkeeping, and excess emissions reporting requirements of 40 CFR 63, Subpart BB and 40 CFR 63, Subpart A}*

- D.15. Daily Records.** To provide reasonable assurance of continuous compliance with Conditions **D.1**, **D.2**, **D.3** and **D.4**, the Permittee shall maintain a daily log. The log at a minimum shall include the following:
- Date
  - Total operating hours.
  - At least once every 12 hours record the product mode (DAP or MAP) and the average P<sub>2</sub>O<sub>5</sub> input rate in tons/hr.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection D. Emissions Unit 010

- d. An area on the log shall indicate the P<sub>2</sub>O<sub>5</sub> input rate (plus 10%, but not exceeding 29.53 for DAP or 33.30 for MAP) at which the last compliance test was conducted.
- e. Each type and quantity of fuel used.
- f. The daily average MMBTU/hr. heat input rate to the dryer.
- g. After switching to fuel oil to fire the dryer following a compliance test conducted using natural gas, record the hours the dryer was fired with fuel oil and the cumulative total time of fuel oil use to determine when the 400th hour testing requirement is triggered.

[Rule 62-4.070(3), F.A.C.]

- D.16.** The Permittee shall maintain a daily record of equivalent P<sub>2</sub>O<sub>5</sub> feed by first determining the total mass rate of phosphorus bearing feed using a monitoring system for measuring mass flow rate which meets the requirements of 40 CFR 63.625(a) and then by proceeding according to specific condition 40 CFR 63.626(c)(3).

[Rule 62-204.800(11), F.A.C.; 40 CFR 63.625(b)]

- D.17.** The owner or operator of an affected source shall comply with the reporting requirements for Performance Test Reports, Excess Emissions Reports and Summary Reports specified in 40 CFR 63.627.

[Rule 62-204.800(11), F.A.C.; 40 CFR 63.627]

#### **Other Requirements**

- D.18.** Supplemental Nitrogen Sources: Addition of a urea/ammonium nitrate solution (UAN), or an equivalent supplemental nitrogen source approved by the Department of Environmental Protection, to DAP is allowed under the following condition:

UAN shall be added to the granulator at a normal rate as needed during production and during any granulator stack emissions test while producing DAP.

[Rule 62-4.070(3), F.A.C.; Authorization letter 2/13/97 and TV Renewal Application received 8/30/2006]

*{Permitting Note: The Permittee shall keep a log of UAN dosing to granulator during production and stack testing while producing DAP.}*

- D.19.** Federal Rule Requirements. This emissions unit is also subject to the applicable requirements contained in 40 CFR 63, Subpart BB - National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants; and 40 CFR 63, Subpart A - General Provisions.

*{Permitting Note: See "Appendix NESHAP - 40 CFR 63 Subpart BB".}*

[Rules 62-213.440 and 62-204.800(11), F.A.C.; 40 CFR 63, Subpart A and 40 CFR 63, Subpart BB]

- D.20.** The requirements of 40 CFR 63, Subpart BB, apply to the following emission points which are components of a DAP or MAP process line: reactors, granulators, dryers, coolers, screens, and mills.

[Rule 62-204.800(11), F.A.C.; and 40 CFR 63.620(b)(1)]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Emissions Units 011, 012 & 013**

**The specific conditions in this section apply to the following emissions units:**

<b>EU No.</b>	<b>Brief Description</b>
-011	“Z” DAP/MAP Plant
-012	“X” DAP/MAP Plant
-013	“Y” DAP/MAP Plant

This X, Y and Z DAP/MAP Plant produces granulated ammonium phosphate fertilizer products DAP and MAP. Each of the three granulation plants consist of a reactor, granulator, dryer, aging belt, product cooler, mills, and screens. The dryers are fired with natural gas or No. 5 fuel oil or lower fuel oil (back-up). In each of the three granulation plants, the gas streams from the plant’s processes (i.e., reactor/granulator process, process dryer, product dust collection system and process product cooler) pass through a series of scrubbers before discharging into a shared abatement scrubber. Each plant’s abatement scrubber uses water as the scrubbing liquid to control the fluoride concentration in the discharge gas stream. Scrubber system configurations for each process are described in the tables below.

Reactor, Granulator, and Aging Belt Gas Stream Pollution Control Equipment:

Stage I - Venturi Scrubber	Venturi Scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Stage II - Primary Scrubber	Ducon Envir. Tech. Series 550, approximately 9'-9" O.D., 36'-10½" high scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Stage III - Secondary Scrubber	Ducon Envir. Tech. Series 550, approximately 9'-9" O.D., 35'-4½" high scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Abatement Scrubber*	Ducon Envir. Tech. Size approximately 15' x 35' scrubber with fresh water as the scrubbing liquid

Dryer Gas Stream Pollution Control Equipment:

Dust Cyclones	Ducon Envir. Tech. 810/175 Type VM (4 cyclones)
Stage I – Venturi Scrubber	Venturi Scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Stage II – Primary Scrubber	Ducon Envir. Tech. Series 555, approximately 10'-2" O.D., 38'-4½" high scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Stage III – Secondary Scrubber	Ducon Envir. Tech. Series 555, approximately 10'-2" O.D., 36'-10½" high scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Abatement Scrubber*	(See previous abatement scrubber description)

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Emissions Units 011, 012 & 013**

Mills and Screens Pollution Control Equipment:

Dust Cyclones	Ducon Envir. Tech. 810/175 Type VM (2 cyclones)
Stage I - Venturi Scrubber	Venturi Scrubber with partially-neutralized phosphoric acid as the scrubbing liquid.
Stage II - Primary Scrubber	Ducon Envir. Tech., Series 535, approximately 8'-8" O.D. x 34'-3" high with phosphoric acid as the scrubbing liquid. (No. 2)
Abatement Scrubber*	(See previous abatement scrubber description)

Product Cooler Pollution Control Equipment:

Dust Cyclones	Ducon Envir. Tech. 810/175 Type VM (2 cyclones)
Abatement Scrubber*	(See previous abatement scrubber description)

*Note: In the previous operation permit (0570005-032-AV), the product cooler pollution control equipment included a secondary cooler scrubber in the list of control equipment; however, Construction Permit 0570005-030-AC has changed the method of operation and the secondary cooler scrubber now operates as a duct with a duct sprayer.*

\*Each plant has one common (shared) abatement scrubber which is the final control device for each process gas streams described in the tables above.

*{Permitting Note: (a) The addition of Urea Ammonium Nitrate (UAN) solution or an equivalent supplemental nitrogen source to the granulation plant/s during the production of Diammonium Phosphate (DAP) is to increase the nitrogen concentration of the DAP product and is an integral part of the process.*

*(b) UAN typically contains 45% by weight ammonium nitrate and 35% by weight urea as an aqueous solution and does not increase emissions from the DAP granulator.}*

*{Permitting notes: These emissions units are regulated under Best Available Control Technology (BACT) Determination, dated July 6, 1989; Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards; Rule 62-296.403, F.A.C.; and 40 CFR 63, Subparts BB and A.}*

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Emissions Units 011, 012 & 013**

The following conditions apply to the emissions units listed above:

**Essential Potential to Emit (PTE) Parameters**

**E.1. Permitted Capacity.** The following emissions units are limited to the following maximum daily average P<sub>2</sub>O<sub>5</sub> input rates:

<b>E.U. ID. No.</b>	<b>Brief Description</b>	<b>Permitted Variable</b>	<b>DAP Mode</b>	<b>MAP Mode</b>
011	Z” DAP/MAP Plant	P <sub>2</sub> O <sub>5</sub> Input (tons/hour)	48.7	55.0
012	X” DAP/MAP Plant	P <sub>2</sub> O <sub>5</sub> Input (tons/hour)	48.7	55.0
		P <sub>2</sub> O <sub>5</sub> Input (tons/year)	383,950	335,000
013	Y” DAP/MAP Plant	P <sub>2</sub> O <sub>5</sub> Input (tons/hour)	48.7	55.0

[Construction Permits 0570005-034-AC and 0570005-044-AC; Rules 62-296.340(5)(c) (escape BART), 62-4.160(2) and 62-210.200 (Definitions – Potential to Emit (PTE)), F.A.C.]

*{Permitting Note: See Condition E.20 regarding the NESHAP requirements for monitoring and recordkeeping of the equivalent P<sub>2</sub>O<sub>5</sub> feed rate.}*

**E.2. Hours of Operation.** These plants are allowed to operate continuously, i.e., 8760 hours/year. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C. and Construction Permit 0570005-044-AC]

**E.3. Authorized Fuels.** To control sulfur dioxide emissions from the X, Y and Z granulation plant product dryers, natural gas shall be fired as the primary fuel. No. 5 fuel oil or better grade fuel oil (i.e., No. 2, 3 or 4) may be fired as a back-up fuel. [Construction Permits 0570005-004-AC and 0570005-034-AC; Rules 62-4-070(1)&(3) and 62-210.200 (PTE), F.A.C.]

**E.4. Maximim Heat Input Rate.** The maximum heat input rate to the X, Y and Z granulation plant product dryers shall not exceed the following:

<b>E.U. ID. No.</b>	<b>Brief Description</b>	<b>Maximum Heat Input (MMBtu/hr)</b>
011	“Z” DAP/MAP Plant	12.0
012	“X” DAP/MAP Plant	49.7 (prior to burner replacement project)
		12.0 (after burner replacement project)
013	“Y” DAP/MAP Plant	12.0

*{Permitting Note: Construction Permit 0570005-038-AC was issued for the replacement of the burners in the X, Y & Z DAP/MAP Plants. At the time this permit was written, the burners in the Y & Z DAP/MAP Plants had been replaced however, the burners in the “X” DAP/MAP Plant had not been replaced. This permit therefore include a compliance plan for the “X” DAP/MAP Plant and maximum heat input limits corresponding to operations prior to and after completion of burner replacement project for the “X” DAP/MAP Plant. Please see Appendix CP-1 for compliance details.}*

[Construction Permits 0570005-038-AC; Rules 62-4-070(1)&(3) and 62-210.200 (PTE), F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Emissions Units 011, 012 & 013**

**Emission Limitations and Standards**

**E.5. Fluorides Emissions Standards:**

- a. The X plant shall not exceed any of the following maximum allowable total fluorides emissions rates:

<b>E.U. ID. No.</b>	<b>Production Mode</b>	<b>lbs. F/Ton P<sub>2</sub>O<sub>5</sub></b>	<b>lbs./hr.</b>	<b>TPY</b>
012	DAP	0.035	1.70	6.70
	MAP	0.04	2.20	6.70

The combined total fluoride emission rate for DAP and MAP from the X Plant shall not exceed 6.70 TPY.

[Construction Permit AC29-210979 and Rule 62-212.300, F.A.C. and 40 CFR 63.622(b)]

- b. The Y plant shall not exceed any of the following maximum allowable total fluorides emissions rates:

<b>E.U. ID. No.</b>	<b>Production Mode</b>	<b>lbs. F/Ton P<sub>2</sub>O<sub>5</sub></b>	<b>lbs./hr.</b>	<b>TPY</b>
013	DAP	0.06	2.2	9.6
	MAP	0.06	2.2	9.6

[Construction Permit AC29-165420 and 40 CFR 63.622(a) and (b)]

- c. The Z plant shall not exceed any of the following maximum allowable total fluorides emission rates based on the design capacity of 24 tons/hr. of P<sub>2</sub>O<sub>5</sub> input.

<b>E.U. ID. No.</b>	<b>Production Mode</b>	<b>lbs. F/Ton P<sub>2</sub>O<sub>5</sub></b>	<b>lbs./hr.</b>	<b>TPY</b>
011	DAP	0.06	1.44	6.31
	MAP	0.06	1.44	6.31

[Rule 62-296.403, F.A.C. and 40 CFR 63.622(a)]

- E.6.** The Permittee shall determine compliance with the applicable total fluorides emissions rate in specific condition **E.5.** using the calculations and procedure specified in 40 CFR 63.626(c). The P<sub>2</sub>O<sub>5</sub> content (R<sub>p</sub>) of the feed shall be determined using as appropriate the methods specified in the “Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Tenth Edition, 2009”.

*{Permitting Note: 40 CFR 63.626(c)(3)(ii) (in 40 CFR 63, Subpart BB) currently references the “Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991”. This permit was updated to require use of the latest version of the “Book of Methods Used and Adopted by The Association Of Florida Phosphate Chemists” at the request of the permittee.}*

[Rule 62-204.800(11), F.A.C.; 40 CFR 63.626(c)]

**E.7. Particulate Matter Emissions Standards:**

- a. The X plant shall not exceed any of the following maximum allowable particulate matter emissions standards:

<b>E.U. ID. No.</b>	<b>Production Mode</b>	<b>lbs./hr.</b>	<b>TPY</b>
012	DAP	10.62	41.88
	MAP	13.75	41.88

The combined total particulate matter emission rate for DAP and MAP shall not exceed 41.88 TPY.

[Construction Permit 0570005-034-AC; Rule 62-296.340(5)(c) (escape BART), F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Emissions Units 011, 012 & 013**

- b. The Y plant shall not exceed any of the following maximum allowable particulate matter emissions standards:

<b>E.U. ID. No.</b>	<b>Production Mode</b>	<b>lbs./hr.</b>	<b>TPY</b>
013	DAP	15.3	67.0
	MAP	15.3	67.0

[Construction Permit 0570005-034-AC; Rule 62-296.340(5)(c) (escape BART), F.A.C.]

- c. The Z plant shall not exceed any of the following maximum allowable particulate matter emissions standards:

<b>E.U. ID. No.</b>	<b>Production Mode</b>	<b>lbs./hr.</b>	<b>TPY</b>
011	DAP	15.0	65.7
	MAP	15.0	65.7

[Construction Permits 0570005-021-AC/PSD-FL-355 and 0570005-034-AC; Rules 62-296.340(5)(c) (escape BART) and 62-296.700(2)(b) (escape PM RACT), F.A.C.]

**Excess Emissions**

- E.8.** Excess Emissions Requirements. See requirements for “Excess Emissions” contained in Subsection L, Common Conditions.  
[Rule 62-210.700, F.A.C.]

**Monitoring of Operations**

- E.9.** The Permittee shall comply with the attached Alternative Monitoring Plan, Appendix AMP, **or** with the monitoring requirements of 40 CFR 63.625(f). When complying with the AMP, the Permittee shall maintain daily averages (of the abatement scrubber liquid water flow and pH) within the allowable ranges established pursuant to the AMP.

*{Permitting Note: See “Appendix AMP, Alternative Monitoring Plan.”}*

[Rule 62-204.800(11), F.A.C.; 40 CFR 63.624 and 63.625(f)]

- E.10.** When in compliance with all of the requirements of 40 CFR 63, Subpart BB, the X, Y and Z Plants are exempted from the requirements of 40 CFR 60, Subpart V.  
[Rule 62-204.800(11), F.A.C.; and 40 CFR 63.631]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Emissions Units 011, 012 & 013**

**Test Methods and Procedures**

*{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}*

**E.11. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

<b>Method</b>	<b>Description of Method and Comments</b>
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Method for Determining Particulate Matter Emissions (All PM is assumed to be PM <sub>10</sub> .)
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method
13B	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode Method (without distillation)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rule 62-297.401, F.A.C.; 40 CFR 63.626(b) (Subpart BB)]

**E.12. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. Each emissions unit shall be tested based on its maximum permitted P<sub>2</sub>O<sub>5</sub> input rate.

[Rules 62.070(3) and 62-297.310(2), F.A.C.]

**E.13. Annual Compliance Tests Required.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), Emissions Units Nos. 012, 013 and 011 (“X”, “Y” and “Z” Plants) shall be tested to demonstrate compliance with the emissions standards for particulates matter and fluoride.

[Rule 62-297.310(7), F.A.C.; 40 CFR 63.626(a)(1)(Subpart BB)]

**E.14. Additional Compliance Tests Required.** Emissions Units Nos. 012, 013 and 011 (“X”, “Y” and “Z” Trains) shall be re-tested to demonstrate compliance with the emissions standards for particulates matter and fluoride within thirty days of:

- a. a change in production mode (e.g., DAP to MAP or MAP to DAP), and/or
- b. upon exceeding the 400th hour during any federal fiscal year when switching from natural gas to No. 5 fuel oil (or a better grade, i.e., No. 2, 3, or 4).

More than one test per any federal fiscal year is not required for any production mode change or fuel switching condition.

[Rules 62.070(3) and 62-297.310(7)(a)5, F.A.C.]

**Recordkeeping and Reporting Requirements**

**E.15. Test Report Records.** A summary of the following process data shall be included in any compliance test report:

- a. Tons/hr. of P<sub>2</sub>O<sub>5</sub> input.
- b. Fuel used to fire the dryer.
- c. Average heat input rate to the dryer.

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection E. Emissions Units 011, 012 & 013

- d. Copies of records which documents the sulfur content of the fuel oil from the vendor immediately preceding the compliance tests.
- e. A copy of the logs and/or charts for the operating parameters required in the Daily Records (Specific Condition No. E.16).

Failure to submit the above process data with the test report or operating under conditions during testing which are not representative of normal operating conditions may invalidate the tests and fail to provide reasonable assurance of compliance.

[Rules 62-297.310(8)(c), and 62-4.070(3), F.A.C.; Construction Permit 0570005-038-AC]

*{Permit Note: See the applicable monitoring, reporting, recordkeeping, and excess emissions reporting requirements of 40 CFR 63, Subpart BB and 40 CFR 63, Subpart A.}*

- E.16. Daily Records.** To provide reasonable assurance of continuous compliance with Conditions **E.1.**, **E.2.**, **E.3.** and **E.4.**, the Permittee shall maintain a daily log for each train. The log at a minimum shall include the following:
- a. The Facility ID (0570005) and Emission Unit ID Number.
  - b. The date.
  - c. The total operating hours.
  - d. At least once every 12 hours record:
    - 1) the product mode (DAP or MAP) and
    - 2) the average P<sub>2</sub>O<sub>5</sub> input rate in tons/hr.
  - e. An area on the log shall indicate the current allowable P<sub>2</sub>O<sub>5</sub> input rate (the rate at which the last compliance test was conducted plus 10%, or the P<sub>2</sub>O<sub>5</sub> input rate limit from Condition E.1., whichever rate is lower).
  - f. Each type and quantity of fuel used.
  - g. The daily average MMBTU/hr. heat input rate to the dryer.
  - h. After switching to fuel oil to fire the dryer following a compliance test conducted using natural gas, record:
    - 1) the hours the dryer was fired with fuel oil for the day and
    - 2) the cumulative total hours of fuel oil use to determine when the 400th hour testing requirement is triggered.

[Construction Permit 0570005-044-AC; Rule 62-4.070(3), F.A.C.]

- E.17.** The Permittee shall maintain a daily record of equivalent P<sub>2</sub>O<sub>5</sub> feed by first determining the total mass rate of phosphorus-bearing feed using a monitoring system for measuring mass flow rate which meets the requirements of 40 CFR 63.625(a) and then by proceeding according to 40 CFR 63.626(c)(3).

[Rule 62-204.800(11), F.A.C.; 40 CFR 63.625(b)]

- E.18.** The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.627.

[Rule 62-204.800(11), F.A.C.; 40 CFR 63.627]

#### **Other Requirements**

- E.19. Supplemental Nitrogen Sources:** Addition of a urea/ammonium nitrate solution (UAN), or an equivalent supplemental nitrogen source approved by the Department of Environmental Protection, to DAP is allowed under the following condition:

*UAN shall be added to the granulator at a normal rate as needed during production and during any granulator stack emissions test while producing DAP.*

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### Subsection E. Emissions Units 011, 012 & 013

[Rule 62-4.070(3), F.A.C.; Authorization letter 2/13/97 and TV Renewal Application received 8/30/2006]

*{Permitting Note: The Permittee shall keep a log of UAN dosing to granulator during production and stack testing while producing DAP.}*

- E.20.** Federal Rule Requirements. These emissions units are also subject to the applicable requirements contained in 40 CFR 63, Subpart BB - National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants; and in 40 CFR 63, Subpart A - General Provisions.

*{Permitting Note: See "Appendix NESHAP - 40 CFR 63 Subpart BB".}*

[Rule 62-213.440, 62-204.800(8) and 62-204.800(11), F.A.C.; 40 CFR 63, Subpart BB]

- E.21.** The requirements of 40 CFR 63, Subpart BB, apply to the following emission points which are components of a DAP or MAP process line: reactors, granulators, dryers, coolers, screens, and mills.  
[Rule 62-204.800(11), F.A.C.; and 40 CFR 63.620(b)(1)]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection F. Emissions Unit 014**

**The specific conditions in this section apply to the following emissions units:**

<b>EU No.</b>	<b>Brief Description</b>
-014	"A & B" Storage Buildings

This subsection applies to the "A" and "B" Storage Buildings, as described below.

For the operation of the "A" and "B" DAP/MAP storage buildings. Coating oils are applied to the MAP/DAP to prevent fugitive emissions of particulate matter.

**The following specific conditions apply to the emissions unit listed above:**

**Essential Potential to Emit (PTE) Parameters**

- F.1.** Permitted Capacity. The maximum material input to the storage buildings shall not exceed 382 tons/hr on a daily average basis and 3,346,320 tons/year, the maximum production rates of MAP/DAP from the "X", "Y", "Z", and "A" trains.  
[Rules 62-4.160(2) and 62-210.200(Definitions – Potential to Emit (PTE)), F.A.C.; and Construction Permit 0570005-020-AC]
  
- F.2.** Coating oils shall be applied to the MAP/DAP to prevent fugitive emissions of particulate matter.  
[Rules 62-4.070(3) and 62.296.700(2), F.A.C.; Applicant request; and Construction Permit 0570005-020-AC]

**Recordkeeping and Reporting Requirements**

- F.3.** Daily Records. In order to document compliance with the rate limitations of **F.1**, the Permittee shall maintain the following daily records:
  - a. The Facility ID (0570005) and Emission Unit ID Number.
  - b. The date.
  - c. The amount of material transferred to the storage buildings in tons.
  - d. The total hours of process operations.
  - e. The daily average rate of material transferred to the storage building in tons/hr (where daily average = tons per day/hours of operation).[Rule 62-4.070(3), F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection G. Emissions Units 015, 018, 019 & 020**

**The specific conditions in this section apply to the following emissions units:**

<b>EU No.</b>	<b>Brief Description</b>
-015	"A" Shipping Baghouse
-018	"B" Shipping Baghouse
-019	"B" Truck Loading
-020	"B" Railcar Loading

This subsection applies to the "A" & "B" Shipping units, as described below.

For the operation of the "A" & "B" Shipping units consisting of sizing, screening, and conveying systems for transferring DAP/MAP from storage buildings "A" and "B" to the truck and railcar loading operations associated with these buildings.

Particulate matter emissions from the transfer points and emissions from the sizing and screening are controlled by approximately 10,000 acfm Mikro-Pulsaire Model 1F2-48 baghouse dust collectors (2) (one on each shipping unit). Emissions from the truck and railcar loading operations are minimized by the use of dust suppressant.

**The following specific conditions apply to the emissions units listed above:**

**Essential Potential to Emit (PTE) Parameters**

**G.1. Permitted Capacity.**

- a. The maximum loading rate from "A" Shipping Unit shall not exceed 250 tons/hour (daily average).
- b. The maximum loading rate from "B" Shipping Unit shall not exceed 500 tons/hour (daily average).

[Construction Permit 0570005-034-AC; Rules 62-296.340(5)(c) (escape BART), 62-4.160(2) and 62-210.200(Definitions – Potential to Emit (PTE)), F.A.C.]

**G.2. Hours of Operation.** These emissions units are allowed to operate continuously, i.e., 8760 hours/year.

[Rule 62-210.200(PTE), F.A.C.]

**Emission Limitations and Standards**

**G.3. Particulate Matter Emissions Standards.** Particulate matter emissions from the "A" and "B" Shipping baghouse exhausts shall each not exceed 5 pounds per hour.

[As requested by Permittee, and Rule 62-296.700(2)(b), F.A.C.]

**G.4.** Due to the expense and complexity of conducting a stack test on a minor source of particulate matter, and because these emission units are equipped with baghouse dust control devices, the Department, in accordance with the authority granted under Rule 62-297.620(4), F.A.C., hereby establishes visible emission limitations not to exceed an opacity of 5% for the "A" and "B" Shipping unit baghouse exhausts in lieu of particulate matter stack tests. Each baghouse control system shall be designed and maintained to achieve an outlet grain loading of no more than 0.02 grains per actual cubic feet (gr./acf) for a nominal flow rate of approximately 10,000 actual cubic feet per minute (acfm). New and replacement bags shall meet these specifications based on vendor information. The permittee shall maintain records of the design specifications for the bags. No particulate matter emissions tests are required.

*{Permitting Note: Based on the baghouse design specifications, potential PM10 emissions from each baghouse would be 1.71 lb/hr and 7.51 tons per year.}*

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection G. Emissions Units 015, 018, 019 & 020**

[Rules 62-297.620(4) and 62-296.340(5)(c) (escape BART), F.A.C.; Construction Permits 0570005-021-AC/PSD-FL-355 and 0570005-034-AC]

- G.5. Visible Emissions Indicator – Truck & Railcar Loading Areas.** As an indicator that the dust control measures being implemented are adequate, visible emissions from the truck and railcar loading areas should not exceed 5% opacity. If this level is exceeded then the Department or EPCHC may require that additional dust control measures be implemented.  
[Rule 62-296.320(4)(c)2., F.A.C., Section 1-3.52, Rules of HCEPC]

**Test Methods and Procedures**

*{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}*

- G.6. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

<b>Method</b>	<b>Description of Method and Comments</b>
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rules 62-297.401(9)(c), and 62-297.310(4)(a)2, F.A.C.]

- G.7. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.  
[Rule 62-297.310, F.A.C.]

- G.8. Annual Compliance Tests Required.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), the following shall be tested to demonstrate compliance with the emissions standards for visible emissions:
- a. The baghouse exhaust associated with the “A” Shipping System,
  - b. The baghouse exhaust, truck loading operation and railcar loading operation associated with the “B” Shipping System.
- [Rule 62-297.310, F.A.C.; Construction Permit 0570005-034-AC]

- G.9.** Testing may be conducted while handling DAP or MAP. All test reports shall include a statement of the type of product being handled during the test.  
[Rule 62-4.070(3), F.A.C.]

**Monitoring of Operations**

- G.10.** For each baghouse, the pressure drop across the baghouse shall be monitored during each compliance test, and a summary of this data shall be included in each emissions test report.  
[Rule 62-297.310(8), F.A.C.]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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### Subsection G. Emissions Units 015, 018, 019 & 020

#### **Recordkeeping and Reporting Requirements**

**G.11.** The Permittee shall create and keep a log of the baghouse operating parameters for each baghouse. The record log shall contain, at a minimum, one fifteen-second visual observation per shift by a plant operator, the date and time of the observation, and the person responsible for performing the observation. The observer is not required to be certified as this is not an observation using EPA Method 9. [Rule 62-4.070(3), F.A.C.]

**G.12.** Daily Records. To document compliance with specific condition **G.1**, the Permittee shall maintain separate daily records on the "A" and "B" Shipping Systems as follows:

- a. The Facility ID (0570005) and Emission Unit ID Number.
- b. The date.
- c. The total hours of operation.
- d. The quantity (tons) of material loaded out on the "A" and "B" Shipping Systems.
- e. For the "B" Shipping System, the records shall be further broken down into quantity of material loaded into trucks and into railcars.
- f. The daily average rate of material loaded out on each of the "A" and "B" Shipping Systems in tons/hr (where daily average rate = tons per day/hours of operation).

[Rules 62-213.440(1)(b)2.b. and 62-4.070(3), F.A.C.]

#### **Other Requirements**

**G.13.** The Permittee shall not circumvent any air pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly. The emission control equipment (i.e. dust collection systems and baghouse control devices) shall be maintained in good repair to perform adequately the function for which they were intended. Maintenance shall include, but not be limited to, periodic inspections and replacement or repair of faulty equipment when necessary. [Rules 62-4.070(3) and 62-210.650, F.A.C.]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection H. Emissions Units 022, 023, 024 & 033

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
-022	2600 Ton Storage Tank
-023	Truck Pit A
-024	Truck Pit B
-033	5000 Ton Storage Tank

This subsection applies to the molten sulfur storage and handling system, as described below.

For the operation of the molten sulfur storage and handling system consisting of;

- one (1) 5,000 ton capacity molten sulfur storage tank (has 5 exhaust vents);
- one (1) 2,600 ton capacity molten sulfur storage tank;
- two (2) 679 ton capacity truck unloading pits (designated as Truck Pit A and Truck Pit B);
- one (1) railcar unloading pit.

Molten sulfur delivered by trucks is unloaded to one of the truck unloading pits and can be transferred to the molten sulfur storage tanks or transferred to any one of the sulfuric acid plants. Molten sulfur delivered by railcar is unloaded to the railcar sulfur unloading pit at a rate of approximately 100 tons (one railcar) per hour. Molten sulfur is transferred from the sulfur tanks to the truck sulfur unloading pits and then to any one of the sulfuric acid plants. Emissions from each storage vessel are vented uncontrolled through a round stack with a rain cap.

The following specific conditions apply to the emissions units listed above:

#### Essential Potential to Emit (PTE) Parameters

- H.1. Permitted Capacity.** The molten sulfur throughput (defined as sulfur unloaded) for the molten sulfur storage and handling facility shall not exceed 8,824 tons per day and 1,051,677 tons during any consecutive 12-month period.  
[Construction Permit 0570005-026-AC/PSD-FL-339B, Rules 62-4.160(2) and 62-210.200(Definitions – Potential to Emit (PTE)), F.A.C.]
- H.2. Hours of Operation.** These emissions units are allowed to operate continuously, i.e., 8760 hours/year.  
[Rule 62-210.200(PTE), F.A.C.]
- H.3. Daily Records.** To comply with the molten sulfur throughput limits in Specific Condition No. **H.1**, daily recordkeeping shall be maintained. The records shall be made available for inspection by the Department, EPCHC, or its designee, and shall contain, at a minimum, the following:
- a. The date.
  - b. For each molten sulfur receiving (unloading) event:
    - 1) The date and time,
    - 2) The delivery vehicle type (truck or railcar), and
    - 3) The quantity of molten sulfur unloaded (in tons).
  - c. The total quantity of molten sulfur received for the day (in tons).
  - d. The total quantity of molten sulfur received for the most recent month and consecutive 12-month period (in tons/yr).
- [Construction Permit AC29-187327 and Rule 62-4.070(3), F.A.C.]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection I. Emissions Unit 032

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
-032	Phosphoric Acid Cleanup

The function of the Phosphoric Acid Cleanup Unit (EU 032) is to clarify phosphoric acid produced by the Phosphoric Acid Plants (PAPs). There are two parallel systems, one used to clarify approximately 26% phosphoric acid, and the other used to clarify approximately 40% phosphoric acid. The clean-up system involves mixing phosphoric acid with a flocculent to remove most of the organic material and gypsum. The mixture is then clarified and the cleaned acid is then sent to the storage or sent directly to the diammonium / monoammonium phosphate (DAP/MAP) plants. The solids from the clarifiers are sent back to the phosphoric acid plant.

For maintenance purpose only, acid transfer to/from the storage tanks and operation of the acid clarification process without the operation of the PACU scrubber may occur for up to 730 hours per year.

Fluoride emissions from this unit are controlled by fume duct sprays followed by a packed bed scrubber with “Kimre” packing or equivalent packing. The packed bed scrubber has a flow rate of approximately 35,000 ACFM.

{Permitting note: This emissions unit is regulated under Rule 62-296.403, F.A.C., Phosphate Processing. }

The following specific conditions apply to the emissions unit listed above:

#### Essential Potential to Emit (PTE) Parameters

- I.1. Permitted Capacity.** The input rate to the clean-up system shall not exceed a daily average of 671 tons per hour of phosphoric acid (26% - 45% P<sub>2</sub>O<sub>5</sub>).  
[Rules 62-4.160(2), 62-210.200(Definitions – Potential to Emit (PTE)), and 62-4,070(3), F.A.C.; and Construction Permits 0570005-006-AC and 0570005-028-AC]
- I.2. Hours of Operation.**
- This emissions unit is permitted for continuous operation ( i.e., 8760 hours/year).
  - The acid transfer to/from the storage tanks and operation of the acid clarification process, without the operation of the PACU scrubber, is limited to 730 hours in any consecutive 12 months period.
- [Rules 62-4.160(2), 62-210.200(PTE) and 62-4,070(3), F.A.C.; and Construction Permits 0570005-006-AC and 0570005-028-AC]

#### Emission Limitations and Standards

- I.3. Fluoride Emissions Standards.** The maximum fluoride emissions from the clean-up system shall not exceed 0.28 lbs./hr (1.23 tons/yr.).  
[Rule 62-296.403(2), F.A.C., and Construction Permit 0570005-006-AC]

#### Test Methods and Procedures

*{Permitting Note: The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit. }*

- I.4. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection I. Emissions Unit 032**

<b>Method</b>	<b>Description of Method and Comments</b>
1, 2 & 4	Traverse Points, Velocity and Flow Rate and Moisture Content
13A	Determination of Total Fluoride Emissions from Stationary Sources – SPADNS – Zirconium Lake Method
13B	Determination of Total Fluoride Emissions from Stationary Sources – Specific Ion Electrode Method (without distillation)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.

[Rule 62-297, F.A.C., and Construction Permits 0570005-006-AC and 0570005-028-AC]

- I.5.** Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.  
[Rule 62-297.310, F.A.C.]
- I.6.** Annual Compliance Tests Required. During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), the emissions unit shall be tested to demonstrate compliance with the emissions standards for total fluorides.  
[Rule 62-297.310(7)(a)4., F.A.C., and Construction Permits 0570005-006-AC and 0570005-028-AC]

**Monitoring of Operations**

- I.7.** This emissions unit is subject to the Compliance Assurance Monitoring requirements contained in the attached Appendix CAM.  
[40 CFR 64 (CAM)]

**Records And Reports**

- I.8.** Recordkeeping - To document compliance with Specific Condition No. **L.1.**, the permittee shall maintain, at a minimum, the following records:
- a. Daily Records:
    - (1) The Facility Name, Facility ID No. (0570005), Emission Unit ID No. (E.U. 032) and Description.
    - (2) The Date.
    - (3) When the PACU is operating, but the PACU scrubber is shut down during periods of essential maintenance of the packed bed scrubber and the ducting system, record the hours of downtime of the PACU scrubber.
    - (4) When the PACU is operating,
      - (a) the total quantity of phosphoric acid input to the PACU system in tons, and
      - (b) the total hours of process operations.
  - b. Monthly Records:

Record the hours of downtime of the PACU scrubber in consecutive 12 months.

Daily records shall be completed within 3 business days. Monthly records shall be complete by end of the following month. The records required in this permit shall be maintained at the facility for a minimum of five years and made available to the HCEPC and the Department upon request.

[Rule 62-4.070(3), F.A.C., Construction Permit No. 0570005-006-AC and 0570005-028-AC]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection J. Emissions Unit 100**

**The specific conditions in this section apply to the following emissions units:**

<b>EU No.</b>	<b>Brief Description</b>
-100	Phosphogypsum Stack

This emission unit refers to the stack existing at 6/96, covered below.

**The following conditions apply to the emissions unit listed above:**

- J.1. Federal Rule Requirements.** The permittee shall comply with 40 CFR 61 Subparts A and R (National Emission Standards for Hazardous Air Pollutants - General Provisions; and National Emission Standards for Radon Emissions from Phosphogypsum Stacks).

*{Permitting Note: See Appendix “NESHAP-40 CFR 61 Subpart A” and “Appendix NESHAP-40 CFR 61 Subpart”.}*

[40 CFR 61 Subpart A and 40 CFR 61 Subpart R]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection K. Emissions Unit 102**

**The specific conditions in this section apply to the following emissions units:**

<b>EU No.</b>	<b>Brief Description</b>
-102	Emergency Diesel Engines (Existing stationary RICE)

This emissions unit consists of the following Emergency Diesel Engines:

<b>Description</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Power (bhp)</b>	<b>Date of Construction</b>
Main Substation Emergency Generator	Caterpillar	3409	599	1999
Emergency Deep Well No 1.	Cummins	NTA360CBCI	400	1980
Emergency ACU Generator	Onan	3500 MKII	160	1980
Emergency Generator B-Pad	Caterpillar	3306DI	305	1980

**Federal Rule Requirements**

**K.1.** 40 CFR 63, Subpart ZZZZ Requirements. The emergency diesel engines included in this emissions unit are subject to the applicable requirements contained in 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and 40 CFR 63, Subpart A - General Provisions. The applicable requirements for each engine (based on category and HP rating) are shown in Appendix NESHAP - 40 CFR 63, Subpart ZZZZ - Summary of Requirements.

*{Permitting Note: See “Appendix NESHAP-40 CFR 63, Subpart A” and “Appendix NESHAP-40 CFR 63, Subpart ZZZZ” }*

[Rule 62-4.070(3), F.A.C.; 40 CFR 63 Subpart A and 40 CFR 63 Subpart ZZZZ]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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### Subsection L. Common Conditions

The specific conditions in this section apply to all regulated emissions units:

#### **Excess Emissions**

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

- L.1.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. (Sulfuric acid plants are authorized by the Department to emit excess emissions from start-up for a period of three consecutive hours provided best operational practices to minimize emissions are followed, in accordance with Appendix B - *Best Operational Start-up Practices for Sulfuric Acid Plants.*)  
[Rule 62-210.700(1), F.A.C.]
- L.2.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.  
[Rule 62-210.700(4), F.A.C.]
- L.3.** Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.  
[Rule 62-210.700(5), F.A.C.]
- L.4.** In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.  
[Rule 62-210.700(6), F.A.C.]

## SECTION IV. APPENDICES.

### The Following Appendices Are Enforceable Parts of This Permit:

- Appendix A, Glossary.
- Appendix AMP, Alternative Monitoring Plan.
- Appendix B, Best Operational Start-up Practices for Sulfuric Acid Plants.
- Appendix BACT, 0570005-041-AV.
- Appendix BACT, PSD-FL-155/AC29-18691.
- Appendix BACT, PSD-FL-339/0570005-019-AC.
- Appendix BACT, PSD-FL-339B/0570005-026-AC.
- Appendix BACT, PSD-FL-355/0570005-021-AC.
- Appendix CAM, Compliance Assurance Monitoring Plan.
- Appendix CP-1, Compliance Plan for 0570005-021-AC, 0570005-038-AC, 0570005-044-AC.
- Appendix NESHAP - 40 CFR 61, Subpart A - General Provisions.
- Appendix NESHAP - 40 CFR 61, Subpart R - NESHAP for Radon Emissions from Phosphogypsum Stacks.
- Appendix NESHAP - 40 CFR 63, Subpart A - General Provisions.
- Appendix NESHAP - 40 CFR 63, Subpart AA - NESHAP for Phosphoric Acid Manufacturing Plants.
- Appendix NESHAP - 40 CFR 63, Subpart BB - NESHAP for Phosphate Fertilizer Production Plants.
- Appendix NESHAP - 40 CFR 63, Subpart ZZZZ - NESHAP for Stationary Reciprocating Internal Combustion Engines.
- Appendix NESHAP - 40 CFR 63, Subpart ZZZZ - Summary of Requirements
- Appendix NSPS - 40 CFR 60, Subpart A - General Provisions.
- Appendix NSPS - 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
- Appendix NSPS - 40 CFR 60, Subpart H - Standards of Performance for Sulfuric Acid Plants.
- Appendix RR, Facility-wide Reporting Requirements.
- Appendix SAM, Sulfuric Acid Mist Emissions Prevention Plan.
- Appendix TR, Facility-wide Testing Requirements.
- Appendix TV, Title V General Conditions.
- Appendix U, List of Unregulated Emissions Units and/or Activities.

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

Abbreviations and Acronyms:

<b>° F:</b> degrees Fahrenheit	<b>ID:</b> identification
<b>acfm:</b> actual cubic feet per minute	<b>ISO:</b> International Standards Organization (refers to those conditions at 288 Kelvin, 60% relative humidity and 101.3 kilopascals pressure.)
<b>AOR:</b> Annual Operating Report	<b>kPa:</b> kilopascals
<b>ARMS:</b> Air Resource Management System (Department's database)	<b>LAT:</b> Latitude
<b>BACT:</b> best available control technology	<b>lb:</b> pound
<b>Btu:</b> British thermal units	<b>lbs/hr:</b> pounds per hour
<b>CAA:</b> Clean Air Act	<b>LONG:</b> Longitude
<b>CAAA:</b> Clean Air Act Amendments of 1990	<b>MACT:</b> maximum achievable technology
<b>CAM:</b> compliance assurance monitoring	<b>mm:</b> millimeter
<b>CEMS:</b> continuous emissions monitoring system	<b>MMBtu:</b> million British thermal units
<b>cfm:</b> cubic feet per minute	<b>MSDS:</b> material safety data sheets
<b>CFR:</b> Code of Federal Regulations	<b>MW:</b> megawatt
<b>CO:</b> carbon monoxide	<b>NESHAP:</b> National Emissions Standards for Hazardous Air Pollutants
<b>COMS:</b> continuous opacity monitoring system	<b>NO<sub>x</sub>:</b> nitrogen oxides
<b>DARM:</b> Division of Air Resources Management	<b>NSPS:</b> New Source Performance Standards
<b>DCA:</b> Department of Community Affairs	<b>O&amp;M:</b> operation and maintenance
<b>DEP:</b> Department of Environmental Protection	<b>O<sub>2</sub>:</b> oxygen
<b>Department:</b> Department of Environmental Protection	<b>ORIS:</b> Office of Regulatory Information Systems
<b>dscfm:</b> dry standard cubic feet per minute	<b>OS:</b> Organic Solvent
<b>EPA:</b> Environmental Protection Agency	<b>Pb:</b> lead
<b>ESP:</b> electrostatic precipitator (control system for reducing particulate matter)	<b>PM:</b> particulate matter
<b>EU:</b> emissions unit	<b>PM<sub>10</sub>:</b> particulate matter with a mean aerodynamic diameter of 10 microns or less
<b>F.A.C.:</b> Florida Administrative Code	<b>PSD:</b> prevention of significant deterioration
<b>F.D.:</b> forced draft	<b>psi:</b> pounds per square inch
<b>F.S.:</b> Florida Statutes	<b>PTE:</b> potential to emit
<b>FGR:</b> flue gas recirculation	<b>RACT:</b> reasonably available control technology
<b>Fl:</b> fluoride	<b>RATA:</b> relative accuracy test audit
<b>ft<sup>2</sup>:</b> square feet	<b>RMP:</b> Risk Management Plan
<b>ft<sup>3</sup>:</b> cubic feet	<b>RO:</b> Responsible Official
<b>gpm:</b> gallons per minute	<b>SAM:</b> sulfuric acid mist
<b>gr:</b> grains	<b>scf:</b> standard cubic feet
<b>HAP:</b> hazardous air pollutant	<b>scfm:</b> standard cubic feet per minute
<b>Hg:</b> mercury	<b>SIC:</b> standard industrial classification code
<b>I.D.:</b> induced draft	

**APPENDIX A**

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**ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS**

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**SNCR:** selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)

**SOA:** Specific Operating Agreement

**SO<sub>2</sub>:** sulfur dioxide

**TPH:** tons per hour

**TPY:** tons per year

**UTM:** Universal Transverse Mercator coordinate system

**VE:** visible emissions

**VOC:** volatile organic compounds

**x:** By or times

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**Citations:**

*The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers and ID numbers.*

Code of Federal Regulations:

*Example: [40 CFR 60.334]*

Where:	40	refers to	Title 40
	CFR	refers to	Code of Federal Regulations
	60	refers to	Part 60
	60.334	refers to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

*Example: [Rule 62-213.205, F.A.C.]*

Where:	62	refers to	Title 62
	62-213	refers to	Chapter 62-213
	62-213.205	refers to	Rule 62-213.205, F.A.C.

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**Identification Numbers:**

Facility Identification (ID) Number:

*Example: Facility ID No.: 1050221*

*Where:*

105	=	3-digit number code identifying the facility is located in Polk County
0221	=	4-digit number assigned by state database.

Permit Numbers:

*Example: 1050221-002-AV, or  
1050221-001-AC*

APPENDIX A

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ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

*Where:*

- AC = Air Construction Permit
- AV = Air Operation Permit (Title V Source)
- 105 = 3-digit number code identifying the facility is located in Polk County
- 0221= 4-digit number assigned by permit tracking database
- 001 or 002= 3-digit sequential project number assigned by permit tracking database

*Example:* PSD-FL-185

PA95-01

AC53-208321

*Where:*

- PSD = Prevention of Significant Deterioration Permit
- PA = Power Plant Siting Act Permit
- AC53 = old Air Construction Permit numbering identifying the facility is located in Polk County

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UPDATED ALTERNATIVE MONITORING PLAN

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*This document is based on CF Industries' Updated AMP Submitted on May 23, 2011 (and revised on August 15, 2011).*

UPDATED ALTERNATIVE MONITORING PLAN REQUIREMENTS

Overview

EPA approved the initial AMP for the A, X, Y and Z Plants as described in Appendix AMP under the current Title V Permit No. 0570005-032-AV. EPA exempted the A, X, Y and Z Plant primary scrubbers from monitoring requirements as they were identified as inherent process equipment which serve the purpose of recovering and returning product to the production process (see EPA Approval Letter included in this appendix).

The AMP requirements herein have been updated to reflect scrubbing system changes that have been implemented in accordance with FDEP Permit No. 0570005-030-AC. Accordingly, the X, Y and Z Plant secondary scrubbers have been removed from the monitoring requirements as they use acid scrubbing and are therefore considered inherent process equipment which serve the purpose of recovering and returning product to the production process. Consequently, only the A, X, Y and Z Plant abatement scrubbers and the A Plant fume and dryer downcomers are subject to the AMP requirements.

Updated AMP (please refer to EPA Approval Letter format included in this appendix)

1.1 Scrubbers and Parameters Monitored

The proposed updated AMP consists of the following:

1. *NO CHANGE TO CURRENT AMP* - In each of the four granulation plants, continuous monitoring and recording of the fluoride abatement scrubber liquid pH is proposed instead of the pressure drop across the abatement scrubber. A minimum pH of 4.5 has been demonstrated to FDEP to be a viable limitation and is a condition of the current Title V permit.
2. *NO CHANGE TO CURRENT AMP* - In each of the four granulation plants, continuous monitoring and recording of the liquid flow to the fluoride abatement scrubber is proposed and is a condition of the current Title V permit.
3. *PROPOSED UPDATE TO CURRENT AMP* - The primary scrubber in granulation plants A, X, Y and Z and secondary scrubbers in plants X, Y, and Z will not be monitored as they are inherent process equipment which serves the purpose of recovering and returning product (i.e. nitrogen and phosphate) to the production process. The water flow to the A plant Header feeding the downcomer will continue to be monitored as required under the current AMP.

1.2 Measurement Techniques

*NO CHANGE TO CURRENT AMP* - Existing pH probes will monitor the pH of the abatement scrubber water. Existing magnetic flow meters will monitor the liquid flow to the abatement scrubbers.

**APPENDIX AMP**  
**UPDATED ALTERNATIVE MONITORING PLAN**

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**1.3 Monitoring Frequency**

*NO CHANGE TO CURRENT AMP* - The pH and liquid flow rate will be monitored continuously and recorded in a data logger.

*PROPOSED UPDATE TO CURRENT AMP* - In the event of monitoring equipment failure, the parameters will be monitored and/or recorded manually every 2 hours.

**1.4 Establishment & Reestablishment of Indicator Ranges**

*PROPOSED UPDATE TO CURRENT AMP* - Since indicator ranges have already been established, to reestablish the indicator ranges, the permittee shall use either MACT Option 1 or MACT Option 2 as described below.

MACT Option 1 - The permittee shall follow the specific procedures referred to as MACT Option (1) (see 40 CFR 63.625(f)(1) as it applies to a DAP Plant) to reestablish each indicator range.

The indicator range shall be reestablished in accordance with the following conditions:

- a. Upon successful completion of each required annual compliance test, the indicator values during testing shall be used to reestablish the indicator range;
- b. Updated tables shall be submitted with the compliance test results. The reestablished minimum and maximum values of the indicator range shall be clearly shown in the tables; and,
- c. Upon establishment of a new indicator range the permittee shall operate under the new indicator range.

MACT Option 2 - The permittee shall follow the specific procedures referred to as MACT Option (2) (see 40 CFR 63.625(f)(2) as it applies to a DAP Plant) to reestablish each indicator range.

The indicator range shall be reestablished in accordance with the following conditions:

- a. Upon successful completion of each required annual compliance test, the indicator values during testing shall be used to reestablish the indicator range;
- b. The indicator values during testing shall be added into the individual emission unit compliance test results historical data set and a new indicator range shall be established;
- c. Updated tables shall be submitted with each compliance test result. The permittee shall indicate whether or not the indicator range has changed as a result of the annual compliance testing. The reestablished minimum and maximum values of the indicator range shall be clearly shown in the tables submitted; and,
- d. Upon establishment of a new indicator range the permittee shall operate under the new indicator range.

**1.5 Justification**

*NO CHANGE TO CURRENT AMP* - The justification for the proposed AMP, consistent with the justification previously approved by EPA, is that the 40CFR63 Subpart BB scrubber monitoring requirements will not result in an appreciable environmental benefit through a reduction in HF emissions and the proposed alternative parameters have already been approved by EPA and FDEP as being appropriate for the subject abatement scrubbers.

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UPDATED ALTERNATIVE MONITORING PLAN

1.6 Averaging Time

*PROPOSED UPDATE TO CURRENT AMP* - The data logger will convert the continuous measured values to 15-minute block averages and generate daily averages. The MACT requirements under 40 CFR 63.624 specifies an averaging period of daily (24-hours). Accordingly, a 24-hour (daily) block average period was selected as appropriate in this updated AMP. This averaging period is consistent with that approved by FDEP for other phosphate fertilizer facilities. A shorter averaging period is not warranted.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

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BUREAU OF AIR REGULATION

4APT-ATMB

Herschel E. Morris  
General Manager  
CF Industries, Inc.  
Plant City Phosphate Complex  
P. O. Drawer L  
Plant City, Florida 33564-9007

Dear Mr. Morris:

This is in response to your letter dated May 3, 2004, regarding an application for approval of alternative monitoring for the CF Industries, Inc. Plant City Phosphate Complex (CFI), and also your letter dated February 25, 2005, regarding additional information to support the alternative monitoring request. CFI is subject to the Phosphate Acid Manufacturing MACT, 40 CFR Part 63, Subpart AA, and the Phosphate Fertilizers Production MACT, 40 CFR Part 63, Subpart BB. Alternative monitoring is being requested, pursuant to Subpart BB, for the Granulation Plants A, X, Y, and Z.

Granulation Plants X, Y, and Z are identical plants producing granulated ammonium phosphate fertilizer products. The gas streams from each of the three plants pass through systems of 10 individual scrubbers, consisting of primary (phosphoric acid scrubbing medium) scrubbers, secondary (process water scrubbing medium) scrubbers, and a final pH-controlled fresh water spray, fluoride abatement scrubber. Scrubber segments (groups of scrubbers treating gases from the respective Fume, Dryer, Cooler, or Dust sources) are connected in series with the flow of gases through the entire segment to be monitored by the combined pressure drop across the segment. The liquid delivery pressure in the pond water cyclonic scrubbers will be measured and recorded manually. The water flow and pH of the abatement scrubber water will be monitored and recorded continuously. The flow of the phosphoric acid scrubbing medium to the primary scrubbers will not be monitored, as these scrubbers do not function to remove fluorides from the gas stream.

Granulation Plant A also produces granulated ammonium phosphate fertilizer products. Although the equipment and process in Plant A is very similar to the equipment and process in Plants X, Y, and Z, Plant A is older, smaller, and serves as a back-up unit for the other three plants. CFI is proposing to continuously monitor the gas pressure drop across each of the scrubber segments, and to continuously monitor the water flow in the header line to the freshwater downcomer scrubber nozzles, the water flow to the fluoride abatement scrubber, and the pH of the abatement scrubber water.

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CF Industries, Inc.  
Plant City Phosphate Complex

Permit No. 0570005-048-AV  
Title V Air Operation Permit Revision

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2

The proposed alternative monitoring consists of the following:

1. In each of the four granulation plants, continuous monitoring and recording of the fluoride abatement scrubber liquid pH is proposed in lieu of the pressure drop across the abatement scrubber. A minimum pH of 4.5 has been demonstrated to the Florida Department of Environmental Protection to be a viable limitation and is a condition of CFI's current Title V permit. The pressure drop across the abatement scrubber is not proposed for measurement because it is an extremely low value and meaningful variations would not be detectable.

2. In each of the four granulation plants, the pressure drop for each of the parallel scrubber segments upstream of the fan and fluorine abatement scrubber is proposed to be continuously monitored and recorded, in lieu of the pressure drop across each scrubber.

3. In Granulation Plant A, continuous monitoring and recording of the water flow through the header feeding the three downcomer scrubbers is proposed.

4. In Granulation Plants X, Y, and Z, the secondary scrubber liquid flow condition is proposed to be monitored by pressure gauges with the readings manually recorded at 2-hour intervals.

5. In each of the four granulation plants, CFI proposes not to monitor the liquid flows to the primary scrubbers on the basis that they are inherent process equipment which serves the purpose of recovering and returning product (i.e., nitrogen and phosphate) to the production process.

Justification for the proposed alternative monitoring is based on CFI's determination that the Subpart BB scrubber monitoring requirements will not result in an appreciable environmental benefit through a reduction in hydrogen fluoride emissions, requires a substantial expenditure of funds for the purchase and installation of monitoring equipment due to the unusually large number of scrubbers in the CFI Granulation plants, and due to the large number of scrubbers there is an unreasonably high cost-to-benefit ratio in comparison with the acceptable ratio stated by the Environmental Protection Agency (EPA) in the Subpart BB preamble.

We have completed our review of the CFI proposed alternative monitoring plan and have one outstanding issue regarding the test plans to establish scrubber segment pressure ranges in each of the four granulation plants. In section 3 of the HF MACT Initial Performance Test Plan for CF Industries, dated February 2005, the test plans for establishing the allowable scrubber segment pressure range describe the process as a minimum of two test runs, with a minimum of one test run performed at the lower end of the scrubber pressure drop and liquid flow rate range, and a minimum of one test run performed at the upper end of the scrubber pressure drop range and liquid flow rate range. It is our position that a minimum of three test runs should be conducted at both the lower and upper end of the pressure drop to improve the odds of obtaining representative results. In addition to concerns about the representativeness of results from a

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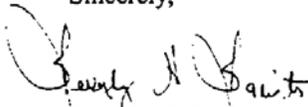
3

single test run, CFI could have difficulty complying with the scrubber flow limits set using the test results if there are any process or testing anomalies during a single test run. Therefore, as a final action on CFI's alternative monitoring request and based on information contained in the original May 3, 2004, request and the additional information dated February 25, 2005, EPA approves CFI's alternative monitoring request for Granulation Plants A, X, Y, and Z with the following condition:

\* For establishing the scrubber segments pressure drop range during the required performance test, CFI shall perform a minimum of three test runs for the lower end of the pressure drop range and a minimum of three test runs for the upper end of the pressure drop.

Please note that the review and approval of CFI's alternative monitoring request was coordinated with the Hillsborough County, Florida, Environmental Protection Commission. If you have questions regarding this alternative monitoring request, please contact Lee Page of the EPA Region 4 staff at (404) 562-9131.

Sincerely,



Beverly H. Banister  
Director  
Air, Pesticides & Toxics  
Management Division

cc: Ron Dennis, Hillsborough County EPC  
✓ Cindy Phillips, FLDEP

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**ALTERNATIVE MONITORING PLAN**

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**ALTERNATIVE MONITORING PLAN**

**CF Industries, Inc.  
Plant City Phosphate Complex  
10608 Paul Buchman Highway  
Plant City, Florida 33565**

**February 25, 2005**

**APPENDIX AMP**  
**ALTERNATIVE MONITORING PLAN**

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**ALTERNATIVE MONITORING PLAN**

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Appendix A -	Extractive FTIR Testing for Hydrogen Fluoride in the X-DAP, Y-MAP, B-PAP, and ACU Stack Emissions, May, 2002.
Appendix B -	Design Engineer's Comments
Appendix C -	HF MACT Initial Performance Test Plan

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**0.0 Proposed Alternative Monitoring Plan Summary**

The proposed monitoring in the phosphoric acid plants will meet the requirements of the Hydrogen Fluoride Maximum Achievable Control Technology (HF MACT) Rule, 40 CFR 63, Subpart AA. However, in the granulation plants (A, X, Y, and Z) substantial changes to the Subpart BB Rule monitoring are being proposed in the Alternative Monitoring Plan. Table 1 provides a summary of the proposed scrubber monitoring. Sections 1.0 through 3.0 of the Plan describe the pollution control systems and the proposed monitoring of those systems in the phosphoric acid plants and granulation plants which are subject to the rule. Sections 4.0 and 5.0 discuss the economic and technical justification for the proposed alternative monitoring plan. The emissions from the affected plants currently meet the NESHAP emission standards established in the rule and additional pollution control equipment is therefore not required for HF MACT compliance.

**1.0 Phosphoric Acid Plants**

In the phosphoric acid plants (EU 004, EU 009) there are no planned deviations from the monitoring required in the HF MACT Rule, Subpart AA. These plants operate horizontal cross flow packed bed scrubbers and utilize process water for the scrubbing medium. The "A" Phosphoric Acid Plant (EU 004) has the existing installed equipment required to monitor scrubber water flow and pressure drop across the scrubber. In the "B" Phosphoric Acid Plant (EU 009), a scrubber water flow meter and differential pressure transmitter will be installed on the scrubber in order to meet the requirements.

**1.1 Performance Indicators**

The monitoring indicators specified by Subpart AA will be used. The scrubber water flow rate provides an indication that the water flow to the scrubber is sufficient, and the gas pressure drop is an indicator of scrubber packing integrity.

**1.2 Measurement Techniques**

The scrubber water flows and pressure drops will be monitored continuously using a magnetic flowmeter and differential pressure transmitters.

**1.3 Monitoring Frequency**

An Aspen Data Historian will record the values every 30 seconds.

**1.4 Averaging time**

The Data Historian will convert the measured values to fifteen-minute block averages. The Historian will average the fifteen-minute values over three-hour periods for the determination of compliance.

**2.0 "X, Y, and Z" Granulation Plants**

Granulation Plants "X", "Y", and "Z" (EU011, EU012, EU013), are identical plants producing granulated ammonium phosphate fertilizer products (MAP and DAP). Alternatives to the monitoring required in the HF MACT Rule, Subpart BB, are being proposed for these plants, for the reasons explained in Sections 4.0 and 5.0. The gas streams from each of the three plants pass through systems of 10 individual scrubbers.

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The scrubber system for each plant consists of primary (phosphoric acid scrubbing medium) venturi and cyclonic scrubbers on the fume, dryer, and dust systems for ammonia and product recovery; secondary (process water scrubbing medium) cyclonic scrubbers on the fume, dryer, and cooler systems; and a final pH-controlled, fresh water spray, fluoride abatement scrubber. The fluoride abatement scrubber collects the gas streams from the fume, dryer, cooler, and dust scrubber segments and subjects them to an intense fresh water scrub before exhausting the gases through the emission stack. The freshwater fluoride abatement scrubber functions as an extra layer of insurance against fluoride emissions including HF. Figure 1 is a process block flow diagram of the XYZ granulation plants. Figure 2 is a schematic diagram of the XYZ granulation plant scrubber systems.

The fluoride abatement scrubber is a vertical spray chamber scrubber with fresh water sprays and a chevron type structured packing for mist elimination. Since it uses fresh water scrubbing exclusively, the abatement scrubber is believed to be unique to CF within the Phosphate Industry. The abatement scrubber pump sump is initially filled with non-process reuse water. Water from the abatement scrubber sump is pumped through ammonia vaporizer heat exchangers where the water is cooled before being sprayed in the abatement scrubber. Scrubber water is cooler than the process gases and causes condensation of fresh water from the stream of air and process gases entering the scrubber. This results in a continuous source of makeup fresh water to the scrubber and results in a subsequent blow down of the scrubber water without any other makeup water source.

#### **2.1 Performance Indicators**

As an alternative to the Subpart BB monitoring it is proposed that the gas pressure drop across each of the scrubber segments (groups of scrubbers connected in series treating gases from the respective Fume, Dryer, Cooler, or Dust sources) be monitored and recorded continuously. Since the scrubbers in each segment are connected in series, the flow of gases through the entire segment can be monitored by the combined pressure drop across the segment. The liquid delivery pressure in the pond water cyclonic scrubbers will be measured and recorded manually. The liquid water flow and pH of the abatement scrubber water will be monitored and recorded continuously. The flow of the phosphoric acid scrubbing medium to the primary scrubbers will not be monitored, as these scrubbers do not function to remove fluorides from the gas stream.

#### **2.2 Measurement Techniques**

The segment pressure drops will be measured using differential pressure transmitters. Pressure gauges will measure the nozzle delivery pressure in the pond water cyclonic scrubbers. Magnetic flow meters will be installed to measure the liquid flow to the fluoride abatement scrubber sprays. Existing pH probes will monitor the pH of the abatement scrubber water.

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**2.3 Monitoring Frequency**

The fluoride abatement scrubber liquid water flow and pH, and the pressure drop through each parallel segment, will be monitored continuously. An Aspen Data Historian will record the measured values every 30 seconds. The liquid delivery pressure to the nozzles in the pond water cyclonic scrubbers will be manually recorded in the Historian at the 2-hour intervals specified in the facility's Compliance Assurance Monitoring Plan.

**2.4 Averaging time**

The Data Historian will convert the continuously-measured values to fifteen-minute block averages. The Historian will average the fifteen-minute values over three-hour periods for the determination of compliance. The Historian will calculate three-hour running averages of the liquid delivery pressures to the secondary scrubber nozzles.

**3.0 "A" Granulation Plant**

Granulation Plant "A" (EU010) also produces granulated ammonium phosphate fertilizer products MAP and DAP, but is older and smaller than the "X, Y, and Z" Plants, and currently serves as a "back-up" unit for the other three plants. Alternative monitoring to the monitoring specified in the Subpart BB rule is being proposed for this plant as well, for the reasons explained in Sections 4.0 and 5.0.

The gas streams from this plant pass through a system of 8 individual scrubbers consisting of primary (phosphoric acid scrubbing medium) venturi and cyclonic scrubbers followed by fresh water spray downcomer scrubbers in the combined dust/dryer segment and the fume segment; a fresh water spray downcomer scrubber in the cooler segment, and a final, pH-controlled, freshwater, fluoride abatement scrubber. The pH-controlled abatement scrubber water is also used in the downcomer scrubber sprays. The fluoride abatement scrubber collects the gas streams from the fume, dust/dryer, and cooler scrubber segments and subjects them to an intense fresh water scrub before exhausting the gases through the emission stack. The freshwater fluoride abatement scrubber functions as an extra layer of insurance against fluoride emissions including HF. Figure 3 is a process block flow diagram of the "A" Granulation Plant. Figure 4 is a schematic diagram of the "A" Granulation Plant scrubber system.

The fluoride abatement scrubber is a vertical spray chamber scrubber with fresh water sprays and a chevron type structured packing for mist elimination. Since it uses fresh water scrubbing exclusively, the abatement scrubber is believed to be unique to CF within the phosphate industry. The abatement scrubber pump sump is initially filled with non-process reuse water. Water from the abatement scrubber sump is pumped through ammonia vaporizers where the water is cooled before being sprayed in the abatement scrubber. Scrubber water is cooler than the process gases and causes condensation of fresh water from the stream of air and process gases entering the scrubber. This results in a continuous source of

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makeup fresh water to the scrubber and results in a subsequent blow down of the scrubber water without any other makeup water source.

**3.1 Performance Indicators**

As an alternative to the Subpart BB monitoring it is proposed that the gas pressure drop across each of the scrubber segments be monitored and recorded continuously. Also it is proposed to continuously monitor and record the liquid water flow in the header line to the freshwater downcomer scrubber nozzles, the liquid water flow to the fluoride abatement scrubber, and the pH of the abatement scrubber water. The flow of the phosphoric acid scrubbing medium to the primary scrubbers will not be monitored, as these scrubbers do not function to remove fluorides from the gas stream.

**3.2 Measurement Techniques**

The segment pressure drops will be measured using differential pressure transmitters. The liquid water flow to the downcomer sprays and to the abatement scrubber will be measured with magnetic flow meters. The existing pH probe will monitor the pH of the abatement scrubber water.

**3.3 Monitoring Frequency**

The abatement scrubber pump liquid water flow and pH, the liquid water flow to the downcomer scrubber nozzles, and the gas pressure drop through each scrubber segment will be monitored and recorded continuously. An Aspen Data Historian will record the values every 30 seconds.

**3.4 Averaging Time**

The Data Historian will convert the recorded values to fifteen-minute block averages, and will average the fifteen-minute values over three-hour periods for the determination of compliance.

**4.0 Economic Justification For Alternative Monitoring**

Alternative monitoring of the granulation plant scrubbers is being proposed on the grounds that the Subpart BB scrubber monitoring called for under Rule 40 CFR 63 will not result in an appreciable environmental benefit through a reduction in HF emissions, requires a substantial expenditure of funds for the purchase and installation of monitoring equipment due to the unusually large number of scrubbers in the CF granulation plants, and therefore has an unreasonably high cost-to-benefit ratio in comparison with the acceptable ratio stated by the Environmental Protection Agency in the rule preamble. CF was proactive in installing the four unique fresh water fluoride abatement scrubbers in 1975 as extra fluoride emission control devices, and has been consistently meeting the Subpart BB emission standards since that time. Plant stack testing using Fourier Transform Infrared technology (FTIR) has been conducted (Appendix A – URS Report). That testing has demonstrated that the CF Plant City Complex has an estimated HF emission potential of 1.7 TPY HF from point sources (Table 2 – Calculation of Annual HF Emissions). The implementation of additional monitoring equipment called for under

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the HF MACT Rule (Table 3 – Equipment List) would cost an estimated \$1,161,000 (Table 4 – Cost Estimate) and is expected to have negligible impact on actual HF emissions from the complex. In order to calculate a cost-to-benefit ratio (dollar cost of additional monitoring equipment divided by reduction in tons of HF emitted), CF has assumed that, if all monitoring called for in the HFMACT rule were implemented, rare upsets in scrubber performance caused by plugging or disruption of scrubber liquid or gas flows could be detected more quickly than they are with monitoring under other rules (Periodic Monitoring and Compliance Assurance Monitoring). If the additional monitoring over a 15-year instrument life were able to reduce the HF emissions from point sources by a conservative 10%, then the cost-to-benefit ratio would be calculated to be \$453,000 per ton of HF [ $\$1,161,000 / (10\% \times 1.7 \text{ TPY HF} \times 15 \text{ years})$ ]. This number is 9 times higher than the cost-to-benefit ratio stated to be “inappropriately high” and “unreasonable in terms of cost” in EPA’s example presented in the rule preamble at Federal Register Vol. 64, Page 31361 and on Page 31369. In that example EPA concluded that an expense of \$50,000 per ton of abated HF emissions would not be economically justified. Ergo, the much higher cost per ton ratio of the Subpart BB monitoring for the CF granulation plant scrubbers is not justified, and the allowance of an alternative monitoring plan is reasonable.

**5.0 Technical Justification For Alternative Monitoring**

The CF monitoring proposal provides the monitoring specified by 40 CFR 63 Subpart AA for Phosphoric Acid Plants “A” and “B”. It also provides the monitoring specified by 40 CFR 63 Subpart BB for the fresh water liquid flow rates to the fluorine abatement scrubbers at the four Granulation Plants “A”, “X”, “Y”, and “Z”. The alternative monitoring elements of the CF proposal are justified as follows.

(1) In each of the four granulation plants, continuous monitoring and recording of the fluorine abatement scrubber liquid pH is proposed in lieu of the pressure drop across the abatement scrubber. The pH of the scrubber liquid is controlled above pH 4.5 by caustic addition, in order to maintain the affinity of the liquid for fluoride gases and any phosphoric acid droplets coming from the upstream scrubber stages. The 4.5 minimum pH has been demonstrated to the Florida Department of Environmental Protection to be a viable limitation and is a condition of the current Title V permit. A high pH in the scrubbing liquid would not reduce the absorption of HF or other fluorides, so an upper range limit is not needed. CF proposes to retain the limit as it currently exists in the permit without further performance testing.

The pressure drop across the abatement scrubber is not proposed for measurement because it is an extremely low value and meaningful variations would not be detectable. The scrubber body is a spray chamber with no packing and the chevron-type structured mist eliminator packing at the scrubber exit is not susceptible to plugging or corrosion. Also, a loss of the gas flow through the scrubber is extremely unlikely, so there is no malfunction condition involving the gas flow to be detected by measuring the pressure drop.

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(2) In each of the four granulation plants, the segment pressure drop for each of the parallel scrubber segments upstream of the fan and fluorine abatement scrubber is proposed to be continuously monitored and recorded, in lieu of the pressure drop across each scrubber. This provides a measurable indicator of the gas flow through all the scrubbers, or of any blockage that might occur in the scrubber segment. There is no significant opportunity for the gases to escape the system as they flow through the scrubber segment toward the fan, so pressure drop monitoring of the scrubber segment is a satisfactory substitute for the monitoring of the pressure drop across each scrubber..

(3) In Granulation Plant "A", continuous monitoring and recording of the liquid water flow through the header feeding the three downcomer scrubbers is proposed. Blockage or corrosion damage to any of the scrubber nozzles is unlikely in this neutralized fresh water system, but any such malfunction would affect the flow rate through the header line.

(4) In Granulation Plants "X, Y, and Z", the secondary scrubber liquid flow condition is proposed to be monitored by pressure gauges with the readings manually recorded at 2-hour intervals as proposed in the facility's Compliance Assurance Monitoring Plan. The continuous monitoring of this parameter is not needed due to the cost and the back-up effect provided by the fluoride abatement scrubber operating downstream.

(5) In each of the four granulation plants, CF proposes not to monitor the liquid flows to the primary scrubbers (venturi/cyclonic scrubber combinations using 28% phosphoric acid as a scrubbing medium) on the same basis that they are excluded from the Compliance Assurance Monitoring Rule provisions in 40 CFR 64; ie. that they are Inherent Process Equipment which serves the purpose of recovering product to the process. These units were stated by the design engineer to have the purpose of recovering ammonia and product dust from the gas stream and returning it to the production process (Appendix B – Design Engineer's Comments). Because they use phosphoric acid as a scrubbing liquid at the same concentration as is present in the phosphoric acid reactor, which is known to be a major source of fluoride gases, these scrubbers should be considered a source of fluoride gases rather than fluoride emission control equipment. The primary scrubbers are thus not HF control equipment, but inherent process equipment for recovering nitrogen and phosphate process materials.

Additionally, the monitoring of liquid flows to these scrubbers is extremely problematic due to constant scaling and pluggage of the monitoring devices with precipitating gypsum and fluosilicate compounds.

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**TABLES**

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**TABLE 1**  
**Alternative Monitoring Plan Summary**

Scrubber	Liquid Monitoring	Gas Monitoring
<b>"A" &amp; "B" Phosphoric Acid Plants:</b>		
A-Phosphoric Acid Packed Bed Cross-Flow Scrubber	Liquid Flow, continuous	Pressure Drop, continuous
B-Phosphoric Acid Packed Bed Cross-Flow Scrubber	Liquid Flow, continuous	Pressure Drop, continuous
<b>"A" Granulation Plant:</b>		
Dryer Acid Cyclonic Scrubber		Segment* Pressure Drop, continuous
Dryer Acid Venturi Scrubber		Segment* Pressure Drop, continuous
Reactor Acid Cyclonic Scrubber		Segment* Pressure Drop, continuous
Reactor Acid Venturi Scrubber		Segment* Pressure Drop, continuous
Downcomer Fresh Water Fluoride Scrubber	Liquid Flow**, continuous	Segment* Pressure Drop, continuous
Fresh Water Fluoride Abatement Scrubber	Liquid Flow, continuous & pH, continuous	***
<b>"X", "Y", "Z" Granulation Plants:</b>		
Fume Acid Venturi Scrubber (3)		Segment* Pressure Drop, continuous
Fume Acid Cyclonic Scrubber (3)		Segment* Pressure Drop, continuous
Fume Pond Water Cyclonic Scrubber (3)	Delivery Pressure, 2-hour interval	Segment* Pressure Drop, continuous
Dryer Acid Venturi Scrubber (3)		Segment* Pressure Drop, continuous
Dryer Acid Cyclonic Scrubber (3)		Segment* Pressure Drop, continuous
Dryer Pond Water Cyclonic Scrubbers (3)	Delivery Pressure, 2-hour interval	Segment* Pressure Drop, continuous
Cooler Pond Water Cyclonic Scrubber	Delivery Pressure, 2-hour interval	Segment* Pressure Drop, continuous
Dust Acid Venturi Scrubber (3)		Segment* Pressure Drop, continuous
Dust Acid Cyclonic Scrubbers (3)		Segment* Pressure Drop, continuous
Fresh Water Fluoride Abatement Scrubber (3)	Liquid Flow, continuous & pH, continuous	***

\* A segment constitutes a train of scrubbers in series or a single scrubber, excluding the fresh water fluoride abatement scrubber.

\*\* One flow meter in the common header pipe delivers water to the three downcomer scrubbers.

\*\*\* Gas flow indicated by Segment Pressure Drop.

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**TABLE 2**  
**CF Industries Inc. Plant City Phosphate Complex**  
**Emission Estimates For HF**

Source/Unit	Point Source Total Allowable F (TPY)	HF Factor (HF/F) Ratio	Point Source Potential to Emit HF (TPY)	Estimated Fugitive HF (TPY)	Total HF Emission Potential (TPY)	Notes
A-DAP/MAP <sup>a</sup>	6.04	4.1%	0.25	0.12	0.37	Assumes 0.5% uncaptured fumes from all sources & 99% scrubber efficiency
X-DAP/MAP/GTSP <sup>a,c</sup>	6.70	4.1%	0.27	0.14	0.41	Assumes 0.5% uncaptured fumes from all sources & 99% scrubber efficiency
Y-DAP/MAP/GTSP <sup>b,c</sup>	9.60	5.8%	0.56	0.28	0.84	Assumes 0.5% uncaptured fumes from all sources & 99% scrubber efficiency
Z-DAP/MAP <sup>a</sup>	6.31	4.1%	0.26	0.13	0.39	Assumes 0.5% uncaptured fumes from all sources & 99% scrubber efficiency
A-PAP <sup>d</sup>	5.20	3.0%	0.16	0.18	0.34	Assumes 0.5% uncaptured fumes from reactor, 10% uncaptured fumes from filters and other sources, 99% scrubber efficiency, 93% of fumes from reactor. <sup>e</sup>
B-PAP <sup>d</sup>	4.60	3.0%	0.14	0.16	0.30	Assumes 0.5% uncaptured fumes from reactor, 10% uncaptured fumes from filters and other sources, 99% scrubber efficiency, 93% of fumes from reactor. <sup>e</sup>
Acid Clarification	1.23	4.7%	0.06	0.03	0.09	Assumes 0.5% uncaptured fumes from all sources & 99% scrubber efficiency
Shipping Scrubber <sup>f</sup>	NA	NA	NA	NA	NA	Assumes 0.5% uncaptured fumes from all sources & 99% scrubber efficiency
Misc HF Sources				0.107	0.107	Assumes 1.51 lb HF/day/acre from the surface area of tanks and ditches with pond water. Vacuum Pump HF emissions per AP-42 1/95 Table 8.9-1. Controlled emission factor for Phosphoric Acid Plant filter vacuum pump.
Process Water Cooling Ponds <sup>g</sup>	NA	NA	NA	0.85	0.85	Uses 0.02 µg/(m <sup>2</sup> -s) HF pond emission factor from the 1/7/94 Radian report. Assumes an average 6.8MPH wind speed, an average annual pond water temperature of 95°F, and a pond coverage area of 311 Acres.
<b>Total</b>			1.70	2.00	3.70	

<sup>a</sup>Note: While permitted for DAP & MAP, these plants have only produced DAP in the last 10+Yr. No testing was done in A and Z DAP/MAP. Therefore, the X-DAP HF emission factor was used.

<sup>b</sup>Note: This plant produces both DAP & MAP on a routine basis. The Y-MAP HF emission factor was used because it was higher than the X-DAP factor.

<sup>c</sup>Note: GTSP has not been produced in more than 10 years. If GTSP is produced in the future, emission factors will be developed and the facility's status as a HAP source will be re-evaluated.

<sup>d</sup>Note: No testing was done in A-PAP. The emission factor for B-PAP was used for A-PAP.

<sup>e</sup>Note: Past fume duct tests in A & B PAP have indicated that 93% of the fluoride fumes entering the scrubbers come from the reactor. The filter and other sources contribute only 7% of the fluorides.

<sup>f</sup>Note: See Appendix B for sample calculations.

**APPENDIX AMP**  
**ALTERNATIVE MONITORING PLAN**

**TABLE 3 - Monitoring Equipment List For HFMACT Rule - Specified Monitoring**

	Area	Loop #	DWG. #	New/Exist.	Flow meter req'd	Size	DP req'd	Description
1	APAP	2185	20-TW-035	Exist.				APAP Scrubber Process Water Supply Flow
2	APAP	2185	20-TW-035A	Exist.				APAP Scrubber Pressure
3	BPAP	3098		New	1	8"		BPAP Scrubber Process Water Supply Flow
4	BPAP	3099		New			1	BPAP Scrubber Pressure
5	X DAP	4547X	5.1-T-51	Exist.				X Dryer Scrubber Pressure
6	X DAP	4545X	5.1-T-53	Exist.				X Dust Scrubber Pressure
7	X DAP	4546X	5.1-T-52	Exist.				X Fume Scrubber Pressure
8	X DAP	4560X	5.1-T-54	Exist.				X Cooler Scrubber Pressure
9	X DAP	4330X		New	1	4"		X Dryer Secondary Scrubber Flow (pond water supply)
10	X DAP	4331X		New	1	4"		X Fume Secondary Scrubber Flow (pond water supply)
49	Z DAP	4340Z		new				X Fume Secondary Scrubber Flow (pond water supply)
50	A DAP	4333A		New	1	6"		A DAP Dryer Venturi Scrubber Flow (low pres. liquor supply)
51	A DAP	4334A		New	1	6"		A DAP Fume Venturi Scrubber Flow (low pres. liquor supply)
52	A DAP	4336A		New	1	4"		A DAP Dryer Primary (cyclonic) Scrubber Flow (high pres. liquor supply)
53	A DAP	4337A		New	1	4"		A DAP Fume Primary (cyclonic) Scrubber Flow (high pres. liquor supply)
54	A DAP	4547A	5.0-T-23	Exist.				A DAP Dryer Scrubber Pressure
55	A DAP	4546A	5.0-T-22	Exist.				A DAP Fume Scrubber Pressure
56	A DAP	4339A		New	1	14"		A DAP Abatement Scrubber Flow (pond water supply)
57	A DAP	4340A		New			1	A DAP Abatement Scrubber Pressure

**APPENDIX AMP**  
**ALTERNATIVE MONITORING PLAN**

**TABLE 4**

ADDITIONAL SCRUBBER PROCESS MONITORING COST ESTIMATE

	Qty.	Spares		Total
4" meters	22	1	\$5,000.00	\$115,000.00
6" meters	9	1	\$5,400.00	\$54,000.00
8" meters	1	1	\$6,050.00	\$12,100.00
14" meters	4	1	\$11,000.00	\$55,000.00
DP's	6	1	\$2,500.00	\$17,500.00
Enclosures	42		\$950.00	\$39,900.00
I/O cabinet	3		\$2,000.00	\$6,000.00
JB's	10		\$550.00	\$5,500.00
PLC's	3		\$15,000.00	\$45,000.00
I/O cards	3		\$2,500.00	\$7,500.00
Mech Eng.	1		\$65,000.00	\$65,000.00
Elect. Eng.	1		\$45,000.00	\$45,000.00
Software Eng.	1		\$25,000.00	\$25,000.00
Mech. Installation	42		\$5,350.00	\$224,700.00
Elect. Installation	58		\$4,400.00	\$255,200.00
Taxes				\$27,000.00
Freight				\$10,000
Subtotal				\$1,009,400.00
Contingency 15%				<u>\$151,410.00</u>
Total				<b>\$1,161,000.00</b>

**APPENDIX AMP**  
**ALTERNATIVE MONITORING PLAN**

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*Please see Project 0570005-032-AV for Figures and Appendices.*

## APPENDIX B

### Best Operational Start-Up Practices For Sulfuric Acid Plants

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These Sulfuric Acid Plant Best Operation Start-Up Practices will be made available in the control room at all times.

1. Only one sulfuric acid plant at a facility should be started up and burning sulfur at a time. There are times when it will be acceptable for more than one sulfuric acid plant to be in the start-up mode at the same time, provided the following condition is met. It is not acceptable to initiate sulfur burning at one sulfuric acid plant when another plant at the same facility is emitting SO<sub>2</sub> at a rate in excess of the emission limits imposed by the permit or rule, as determined by the CEMs emission rates for the immediately preceding 20 minutes.
2. A plant start-up must be at the lowest practicable operating rate, not to exceed 70 percent of the designated operating rate, until the SO<sub>2</sub> monitor indicates compliance. Because production rate is difficult to measure during start-up, if a more appropriate indicator (such as blower pressure, furnace temperature, gas strength, blower speed, number of sulfur guns operating, etc.) can be documented, tested and validated, the Department will accept this in lieu of directly documenting of the suitable list of surrogate parameters to demonstrate and document the reduced operating rate on a plant-by-plant basis. Documentation that the plant is conducting start-up at the reduced rate is the responsibility of the owner or operator.
3. Sulfuric acid plants are authorized to emit excess emissions from start-up for a period of three consecutive hours provided best operational practices, in accordance with this agreement, to minimize emissions are followed. No plant shall be operated (with sulfur as fuel) out of compliance for more than three consecutive hours. Thereafter, the plant shall be shut down. The plant shall be shut down (cease burning sulfur) if, as indicated by the continuous emission monitoring system, the plant is not in compliance within three hours of startup. Restart may occur as soon as practicable following any needed repairs or adjustments, provided the corrective action is taken and properly documented.
4. Cold Start-Up Procedures.
  - a. Converter.
    - (1) The inlet and outlet temperature at the first two masses of catalyst shall be sufficiently high to provide immediate ignition when SO<sub>2</sub> enters the masses. In no event shall the inlet temperature to the first mass be less than 800°F or the outlet temperature to the first two masses be less than 700°F. These temperatures are the desired temperatures at the time the use of auxiliary fuel is terminated.
    - (2) The gas stream entering the converter shall contain SO<sub>2</sub> at a level less than normal and sufficiently low to promote catalytic conversion to SO<sub>3</sub>.
  - b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved. In no event shall the concentration be less than 96 percent H<sub>2</sub>SO<sub>4</sub>.

## APPENDIX B

### Best Operational Start-Up Practices For Sulfuric Acid Plants

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#### 5. Warm Restart.

##### a. Converter

The inlet and outlet temperatures of the first two catalyst masses should be sufficiently high to ensure conversion. One of the following three conditions must be met:

- (1) The first two catalyst masses inlet and outlet temperatures must be at a minimum of 700°F; or
- (2) Two of the four inlet and outlet temperatures must be greater than or equal to 800°F; or
- (3) The inlet temperature of the first catalyst must be greater than or equal to 600°F and the outlet temperature greater than or equal to 800°F. Also, the inlet and outlet temperatures of the second catalyst must be greater than or equal to 700°F.

Failure to meet one of the above conditions requires use of cold start-up procedures.

To allow for technologies improvements or individual plant conditions, alternative conditions will be considered by the Department in appropriate cases.

##### b. Absorbing Towers.

The concentration, temperature and flow of circulating acid shall be as near to normal conditions as reasonably can be achieved. In no event shall the concentration be less than 96 percent H<sub>2</sub>SO<sub>4</sub>.

**APPENDIX BACT, 0570005-041-AV**

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**Permit No. 0570005-041-AV**

**Best Available Control Technology (BACT) Determination**

**CF Industries, Inc.**

**Hillsborough County**

**Title V Permit No. 0570005-041-AV**

CF Industries, Inc. has submitted an application dated March 2, 2010 for a Title V Air Operation Renewal Permit to operate a phosphate fertilizer production facility. As part of that application, the facility includes a regulated boiler (a Johnson Scotch Marine Type Boiler) that is subject to Rule 62-296.406, F.A.C. The boiler is fired with either natural gas or No. 2 fuel oil having a maximum sulfur content of 0.05 percent, by weight, and has maximum heat input rate of 83.3 million BTU per hour (MMBTU/hr.).

This BACT determination is required for the source as set forth in Rule 62-296.406, Florida Administrative Code - Emission Standards for Fossil Fuel Fired Steam Generators with Less Than 250 million BTU/hr. Heat Input, New and Existing Sources.

BACT Determination Requested by Applicant:

Particulate matter and sulfur dioxide emissions are to be controlled by the firing of natural gas or No. 2 fuel oil with a maximum sulfur content not to exceed 0.05 percent, by weight.

Date of Receipt of BACT Application: March 2, 2010

BACT Determination by DEP:

The amount of particulate matter and sulfur dioxide emissions from the boiler shall be limited by the firing of natural gas or No. 2 fuel oil with a maximum sulfur content not to exceed 0.05 percent, by weight.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern, since most of the fuel's sulfur becomes sulfur dioxide. Also, particulate matter emissions from fuel burning are related to the sulfur content. The Department has performed air dispersion modeling analyses on small natural gas/low sulfur oil fired boilers typical of those recently permitted in Florida. These analyses show that all standards and increments will be met with the use of natural gas or No. 2 fuel oil containing a maximum sulfur content of 0.05 percent, by weight. Distillate fuel oils containing 0.05 percent sulfur, by weight, or less are available and cost only a few cents per gallon more than fuel oils with 0.5 percent sulfur, by weight.

**APPENDIX BACT, 0570005-041-AV**

**Permit No. 0570005-041-AV**

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Details of the Air Dispersion Analysis May be Obtained by Contacting:

A. A. Linero, P.E. Supervisor, New Source Review Section  
Department of Environmental Protection  
Bureau of Air Regulation  
Twin Towers Office Building  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

Approved by:

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Cindy Zhang-Torres, P.E.  
Air Permitting Manager  
Southwest District

\_\_\_\_\_, 2011

**APPENDIX BACT, PSD-FL-155**  
**Permit No. PSD-FL-155/AC29-18691**

Best Available Control Technology (BACT) Determination  
CF Industries, Inc.  
Hillsborough County

The applicant proposes to increase sulfuric acid production from 2400 tons per day to 2600 tons 100% sulfuric acid per day per plant at existing plants "C" and "D" at the Plant City Phosphate Complex in Hillsborough County.

The proposed project will result in a significant increase in emissions of SO<sub>2</sub>, acid mist, and NO<sub>x</sub>. The project is therefore subject to Prevention of Significant Deterioration (PSD) review in accordance with F.A.C. Rule 17-2.500 (5).

The BACT review is part of the PSD review requirements in accordance with F.A.C. Rule 17-2.500(5)(c).

Date of Receipt of a BACT application:

September 26, 1990

BACT Determination Requested by the Applicant:

The BACT determination requested by the applicant is presented below:

Control Technology: Double Absorption/Fiber Mist Eliminators

<u>Pollutant</u>	<u>Emission Limits</u>
SO <sub>2</sub>	4 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced
Acid Mist	0.15 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced
Visible Emissions	10% opacity
NO <sub>x</sub>	0.14 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced

Basis of Review:

This determination was based upon input from the applicant, EPA Region IV, and the Bureau of Air Regulation.

BACT Determination Procedure:

In accordance with Florida Administrative Code Chapter 17-2, Air Pollution, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

**APPENDIX BACT, PSD-FL-155**  
**Permit No. PSD-FL-155/AC29-18691**

BACT  
CF Industries, Inc.  
Page Two

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

In addition to the criteria discussed above, the EPA requires that BACT should be determined using the "top-down" approach. The first step in this approach is to determine the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Determined by DER:

Control Technology: Double Absorption/Fiber Mist Eliminators

<u>Pollutant</u>	<u>Emission Limits</u>
SO <sub>2</sub>	4 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced
Acid Mist	0.15 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced
Visible Emissions	10% opacity
NOx	0.14 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> produced

BACT Determination Rationale

DER's Bact determination is the same as that proposed by the applicant, determinations completed by other states, and Standards of Performance for Sulfuric Acid Plants, 40 CFR 60 Subpart H, (double absorption process). The process in itself is the control technology for SO<sub>2</sub> and acid mist. The emission limits reflect conversion efficiency of around 99.7% of SO<sub>2</sub> to H<sub>2</sub>SO<sub>4</sub>. High efficiency mist eliminators are considered BACT for acid mist. A review of BACT/LAER Clearinghouse indicates that the double absorption technology, and the use of high efficiency mist eliminators is representative of BACT using the top down approach.

**APPENDIX BACT, PSD-FL-155**  
**Permit No. PSD-FL-155/AC29-18691**

BACT  
CF Industries, Inc.  
Page Three

A review of the BACT/LAER Clearinghouse does not indicate any control technologies or emission limits for nitrogen oxides emissions from sulfuric acid plants. The proposed emission level, equivalent to 0.03 pounds per million Btu, is well below the BACT levels that are typically established for sources emitting nitrogen oxides and is hence deemed BACT for this facility.

Environmental Impact Analysis:

The impact analysis for the BACT determination is based on 8760 hours/year operation. The ambient air quality impact analysis resulted in the following for SO<sub>2</sub> emissions:

<u>Averaging Time</u>	<u>Predicted Impact (ug/m<sup>3</sup>)</u>	<u>De minimus (ug/m<sup>3</sup>)</u>	<u>Fla. AAQS (ug/m<sup>3</sup>)</u>
<u>SO<sub>2</sub></u>			
Annual	0.15	N/A	60
24-hr	1.8	13.0	260
3-hr	7.5	N/A	1300
<u>NO<sub>x</sub> (planned increase plus 1988 increases)</u>			
Annual	0.009	14.0	100

Conclusion:

The incremental impact from SO<sub>2</sub> and NO<sub>x</sub> due to the proposed modification is insignificant. Although the ambient air quality impact analysis ordinarily should not be considered part of the BACT evaluation, the minimal impacts associated with the proposed increase in production strengthen the Department's determination that the emission limits established herein represent BACT.

Details of the Analysis may be Obtained by Contacting:

Barry Andrews, P.E.  
Department of Environmental Regulation  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Recommended By:

C. H. Fancy  
C. H. Fancy, P.E., Chief  
Bureau of Air Regulation

June 18 1991  
Date

Approved By:

Carol M. Browner  
Carol M. Browner, Secretary  
Dept. of Environmental Regulation

July 16 1991  
Date

**APPENDIX BACT, PSD-FL-339**  
**Permit No. PSD-FL-339/0570005-019-AC**

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**CF Industries, Inc.**  
**Plant City Phosphate Complex**  
**PSD-FL-339/0570005-019-AC**  
**Hillsborough County**

The project proposed by CF Industries, Inc. will increase the permitted production rate of the existing "C" and "D" Sulfuric Acid Plants (SAPs) from 2,600 to 2,750 tons per day. Several improvements to increase production capacity of the "C" and "D" SAPs are proposed, including:

- Replacement of potassium or sodium promoted vanadium catalyst with installation of cesium promoted vanadium catalyst;
- Replacement of the "C" SAP final and drying absorption tower packing with low pressure drop packing;
- Installation of a new tube side bypass on the No.3 cold gas heat exchanger;
- Installation of a bypass around the superheater/economizer, replacement of the existing No. 1 cross flow hot gas heat exchanger with a low pressure drop radial heat exchanger; and
- Installation of onsite oxygen generation, storage, and injection equipment suitable.

To accommodate the increase in sulfuric acid production, CF Industries is also requesting an increase in the maximum throughput rate of the Molten Sulfur Storage and Handling System from 930,750 tons per year (TPY) to 965,388 TPY. There will be no physical changes to the Molten Sulfur Storage and Handling System as part of this project. Only the permitted annual throughput rate will increase.

The proposed modification will result in a significant increase in emissions of sulfur dioxide (SO<sub>2</sub>), sulfuric acid mist (SAM) and nitrogen oxides (NO<sub>x</sub>). The project is subject to Prevention of Significant Deterioration (PSD) review in accordance with Rule 62-212.400, Florida Administrative Code (F.A.C.). A Best Available Control Technology (BACT) determination is part of the review required by Rules 62-212.400 and 62-296, FAC. Descriptions of the process, project, air quality effects, and rule applicability are given in the Technical Evaluation and Preliminary Determination, accompanying the Department's Intent to Issue.

**DATE OF RECEIPT OF COMPLETE BACT APPLICATION:**

Original application received on January 22, 2004. BACT application was complete on April 20, 2004.

**BACT DETERMINATION PROCEDURE:**

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines what is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to the following:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 and 63 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

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CF Industries, Inc.  
Plant City Phosphate Complex

Permit No. 0570005-048-AV  
Title V Air Operation Permit Revision

**APPENDIX BACT, PSD-FL-339**  
**Permit No. PSD-FL-339/0570005-019-AC**

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

The air pollutant emissions from this facility can be grouped into categories based upon the control equipment and techniques that are available to control emissions from these emission units. Using this approach, the emissions can be classified as indicated below:

- **Combustion Products** (SO<sub>2</sub>, NO<sub>x</sub>, PM). Controlled generally by good combustion of clean fuels.
- **Products of Incomplete Combustion** (CO, VOC). Controlled generally by proper combustion.

Grouping the pollutants in this manner facilitates the BACT analysis because it enables the equipment available to control the type or group of pollutants emitted and the corresponding energy, economic, and environmental impacts to be examined on a common basis.

Although all of the pollutants addressed in the BACT analysis may be subject to a specific emission limiting standard as a result of PSD review, the control of "non-regulated" air pollutants is considered in imposing a more stringent BACT limit on a "regulated" pollutant (i.e., PM, SO<sub>2</sub>, H<sub>2</sub>SO<sub>4</sub>, fluorides, etc.), if a reduction in "non-regulated" air pollutants can be directly attributed to the control device selected as BACT for the abatement of the "regulated" pollutants.

**BACT EMISSION LIMITS PROPOSED BY APPLICANT:**

The applicant proposed the following emission limits from the "C" and "D" sulfuric acid plants.

<b>POLLUTANT</b>	<b>EMISSION LIMIT (lb/hr)</b>	<b>LIMIT BASIS (lb/ton H<sub>2</sub>SO<sub>4</sub>)</b>	<b>CONTROL TECHNOLOGY</b>
SO <sub>2</sub>	441	3.5; 24-hr basis 3.85; 3-hr basis	Double Absorption Process
SAM	11	0.10	Fiber Mist Eliminators
NO <sub>x</sub>	16	0.14	Good Combustion Practice

The applicant has proposed to use the existing double absorption process and incorporation of cesium promoted catalyst in the entire 4<sup>th</sup> pass of the converter to achieve the proposed limits for the sulfuric acid plants.

**BACT POLLUTANT ANALYSIS**

The process by which sulfuric acid is produced is the same process by which SO<sub>2</sub> and sulfuric acid emissions are controlled.

The SAPs utilize double absorption technology. Molten sulfur with physical characteristics much like fuel oil sulfur is burned in a furnace with dried atmospheric oxygen to produce SO<sub>2</sub>. The SO<sub>2</sub> is catalytically oxidized to sulfur trioxide (SO<sub>3</sub>) over a bed of vanadium pentoxide. The SO<sub>3</sub> is then absorbed in a recirculating stream of sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) to produce additional H<sub>2</sub>SO<sub>4</sub>.

**APPENDIX BACT, PSD-FL-339**  
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The remaining SO<sub>2</sub>, not previously oxidized, is passed over a final converter bed of catalyst and the SO<sub>3</sub> produced is then absorbed in H<sub>2</sub>SO<sub>4</sub> in a second absorber. SO<sub>2</sub> and sulfuric acid mist emissions result from the process, as well as a small amount of NO<sub>x</sub>.

The control equipment for the SAPs consists of two systems in series. The first system is integral to the H<sub>2</sub>SO<sub>4</sub> production process and is the double contact process where the converted SO<sub>3</sub> emissions from the sulfur combustion are absorbed by water in a tower. This process is at least 99 percent efficient at absorbing SO<sub>3</sub>. This system is considered process equipment and not considered control equipment. The second system is a high-velocity mist eliminator, which causes moisture (droplets containing sulfuric acid mist) from the double-contact process to be removed from the air stream by impingement. This process is at least 90 percent efficient at removing SAM from the air stream and, therefore, recovering the product.

The proposed project includes an increase in the production rate of the existing "C" and "D" SAPs to 2,750 tons per day, each. It involves upgrading and/or replacement of plant equipment to accomplish the production increases, as described in the permit application. The primary improvement will be the incorporation of cesium promoted vanadium catalyst into the 4<sup>th</sup> pass of the converter (beds 4a and 4b).

Cesium promotion allows operation at lower temperature and thus a more complete approach to equilibrium in the final pass (i.e. more SO<sub>2</sub> gets converted to SO<sub>3</sub>). The particular formulations available in recent years have optimized shapes that are basically hollow cylinders with ribbed sides. They have star, daisy, or asterisk shapes when viewed from the end. They also have greater vanadium concentration than conventional catalysts.

The result is that installation of this catalyst allows greater production due to lower operating pressure and temperature, and higher activity. If production is not increased, the catalyst allows for lower emissions. Emissions increase on a lb/hr basis and on a lb/ton of product basis. Therefore a lb/ton limit directly affects maximum production.

In a modification for the purpose of increasing production, a balance is required so that the benefits of the more effective catalyst do not accrue only to production or only to lower emissions which would defeat the purpose of the modification.

According to the applicant, "C" SAP will undergo turnaround initially in the first week of June 2004. CF Industries, Inc. has selected Haldor Topsoe to provide the cesium promoted catalyst for "C" SAP. The cesium catalyst product is a VK69 12mm daisy design product. In quoting from a letter from Haldor Topsoe to the applicant dated April 7, 2004, "Our modeling indicates that with 165,000 liters of VK69 cesium catalyst installed in the 4A and 4B converter beds the emissions at the start of run immediately after a turnaround would be 3.12 lbs of SO<sub>2</sub> per ton of acid produced and after 3 years at the end of a turnaround cycle the emissions would be 3.43 lbs of SO<sub>2</sub> per ton of acid produced".

Based on this analysis, the Department has reasonable assurance that the "C" SAP can meet a ***BACT limit of 3.5 lbs of SO<sub>2</sub> per ton of 100% acid, 3-hour rolling average.*** This is less than the present NSPS based limit of 4 lb/ton applicable to the "C" SAP.

According to the applicant the "D" SAP will be undergoing turnaround in the fall of 2004. They have requested that they should be given the option of utilizing other catalyst vendors and products if those vendors can guarantee equal or better performance than the Haldor Topsoe product. The Department has no objection to that request, as long as the applicant installs 165,000 liters of cesium promoted catalyst in the 4<sup>th</sup> pass of the "D" SAP converter and meets the same ***BACT limit of 3.5 lbs of SO<sub>2</sub> per ton of 100% acid, 3-hour rolling average.***

**APPENDIX BACT, PSD-FL-339**  
**Permit No. PSD-FL-339/0570005-019-AC**

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In an effort to determine the performance of an acid plant utilizing cesium promoted catalyst in the entire 4<sup>th</sup> pass of a converter, the Department will require the applicant to provide continuous emission monitor results on a quarterly basis for three years (turnaround cycle) for both "C" and "D" SAPs. The data can be presented in a graphical representation against time, indicating the production rate as well as 3-hour rolling averages of SO<sub>2</sub> emissions. This requirement will be included as a specific condition in the permit. The data can be used by the Department for any future SO<sub>2</sub> BACT determinations of sulfuric acid plants.

Recent SAM compliance test data for "C" and "D" SAPs indicates that the average SAM emissions are between 0.03 and 0.05 lb/ton. These SAM levels are less than the proposed allowable emissions of 0.10 lb/ton for the "C" and "D" SAPs. For reference the present limit is 0.15 lb SAM/ton in accordance with the NSPS for sulfuric acid plants. High efficiency mist eliminators will be used to achieve the BACT emission limit for SAM.

The applicant accepted the NO<sub>x</sub> emission limit of 0.12 lb/ton of acid produced. This is the current BACT limit established for other acid plants. The Department agrees with the applicant that continued use of good combustion practices is considered BACT for NO<sub>x</sub>.

Control options involving production of by-products or wastes have been rejected as BACT. There is no indication that add-on control methods are competitive with process improvements that result in production of additional sulfuric acid. Recovery of sulfuric acid mist is an economic necessity as well as an environmental requirement.

**BACT DETERMINATION BY THE DEPARTMENT:**

Based on the information provided by the applicant, the above analysis and other information available to the Department, the following emission limits are established employing the top-down BACT approach.

The proposed BACT for SO<sub>2</sub> for the "C" and "D" SAPs is the current double-absorption system with the addition of 165,000 liters of Haldor Topsoe cesium catalyst in the 4<sup>th</sup> pass of the "C" SAP converter and equivalent cesium catalyst that guarantees equal or better performance than Topsoe's product for the "D" SAP. The proposed BACT limit for "C" and "D" SAP is 3.5 lbs of SO<sub>2</sub> per ton of 100% H<sub>2</sub>SO<sub>4</sub>, 3-hour rolling average.

This determination is applicable only to the present project and does not represent a BACT determination for a greenfield site or a new unit at a brownfield site. Such a new project would have to consider all process options and a thorough cost-effectiveness evaluation on the basis of cost per ton of SO<sub>2</sub> removed.

The proposed BACT for SAM emissions is the use of high-efficiency mist eliminators. The proposed emission limit for the "C" and "D" SAP is 0.10 lbs of SAM per ton of 100% H<sub>2</sub>SO<sub>4</sub>. The proposed emission limit is reasonable based on previous BACT determinations, and is consistent with currently established BACT, based on recent PSD permits.

The proposed BACT for NO<sub>x</sub> emissions is the continued use of good combustion practices. The proposed NO<sub>x</sub> emission limit is 0.12 lbs of NO<sub>x</sub> per ton of 100% H<sub>2</sub>SO<sub>4</sub>.

**APPENDIX BACT, PSD-FL-339**  
**Permit No. PSD-FL-339/0570005-019-AC**

<b>POLLUTANT</b>	<b>EMISSION LIMIT (lb/hr)</b>	<b>LIMIT BASIS (lb/ton H2SO4)</b>	<b>CONTROL TECHNOLOGY</b>
SO <sub>2</sub>	401	3.5 3-hr rolling average	Double Absorption Process, cesium-promoted vanadium catalyst in the entire 4 <sup>th</sup> bed.
SAM	11	0.10	Fiber Mist Eliminators
NO <sub>x</sub>	14	0.12	Good Combustion Practice

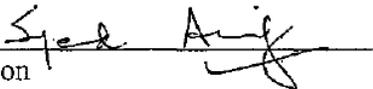
**COMPLIANCE:**

Compliance with the sulfur dioxide emission limit (3.5 lb/ton, 3-hour rolling average) shall be demonstrated with a certified continuous emission monitor. Start-up excess emissions shall be permitted for three hours for the sulfuric acid plants as endorsed in an agreement titled "Best Operational Start-Up Practices for Sulfuric Acid Plants", which is attached as Appendix A of the permit.

Annual compliance testing with the sulfur dioxide, sulfuric acid mist and nitrogen oxides limits shall be demonstrated using EPA Reference Methods 1, 2, 3, 4, 6C, 7E, 8 and 9 as appropriate, and contained in 40 CFR 60, Appendix A.

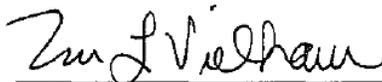
Tallahassee, Florida 32399-2400

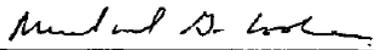
**DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:**

Syed Arif, P.E., Permit Engineer   
Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Recommended By:

Approved By:

  
Trina L. Vielhauer, Chief  
Bureau of Air Regulation

  
Michael G. Cooke, Director  
Division of Air Resources Management

June 1, 2004  
Date:

June 1, 2004  
Date:

**Note:** A copy of the original BACT Determination document can be found with the project file for Permit No. PSD-FL-339/0570005-019-AC.

APPENDIX BACT, PSD-FL-339B

Permit No. PSD-FL-339B/0570005-026-AC

CF Industries, Inc.  
Plant City Phosphate Complex  
Permit No. PSD-FL-339B  
Plant City, Hillsborough County

**Permit No. PSD-FL-339**

For original Permit No. PSD-FL-339, the Department made the following BACT determinations for the “C” and “D” sulfuric acid plants.

- SO<sub>2</sub> Emissions: BACT is the current double-absorption system with the addition of 165,000 liters of Haldor Topsoe cesium catalyst in the 4<sup>th</sup> pass of the “C” SAP converter and equivalent cesium catalyst that guarantees equal or better performance than Topsoe’s product for the “D” SAP. The SO<sub>2</sub> BACT limit for “C” and “D” SAP is 3.5 lb of SO<sub>2</sub> per ton of 100% H<sub>2</sub>SO<sub>4</sub>, 3-hour rolling CEMS average. This determination is applicable only to the present project and does not represent a BACT determination for a greenfield site or a new unit at a brownfield site. Such a new project would have to consider all process options and a thorough cost-effectiveness evaluation on the basis of cost per ton of SO<sub>2</sub> removed.
- SAM Emissions: BACT is the use of high-efficiency mist eliminators. The SAM BACT emission limit for the “C” and “D” SAP is 0.10 lb of SAM per ton of 100% H<sub>2</sub>SO<sub>4</sub>.
- NO<sub>x</sub> Emissions: BACT is the continued use of good combustion practices. The NO<sub>x</sub> BACT emission limit is 0.12 lbs of NO<sub>x</sub> per ton of 100% H<sub>2</sub>SO<sub>4</sub>.

**Permit No. PSD-FL-339B**

After installing catalyst and completing a portion of the construction authorized in Permit No. PSD-FL-339, the permittee realized that the changes resulted in the capability to produce more sulfuric acid than anticipated. Permit No. PSD-FL-339B authorized a sulfuric acid production increase from 2750 to 2962 tons per day. Based on the installed capabilities of the control systems, the original BACT determinations were revised in this project for the production increase as summarized in the following table.

Pollutant	BACT Standards		Control Technology
SO <sub>2</sub>	401 lb/hour	3.25 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> , 3-hour rolling CEMS average	double absorption process with cesium-promoted vanadium catalyst in the entire 4 <sup>th</sup> bed.
SAM	11 lb/hour	0.093 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	fiber mist eliminators
NO <sub>x</sub>	14 lb/hour	0.11 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	good combustion practices

**Compliance Methods**

Compliance with the SO<sub>2</sub> emission limit (3.25 lb/ton, 3-hour rolling CEMS average) shall be demonstrated with a certified continuous emission monitor. Startup excess emissions shall be permitted for three hours for the sulfuric acid plants as endorsed in an agreement titled “Best Operational Startup Practices for Sulfuric Acid Plants”, which is attached as Appendix A of the permit. In accordance with the following methods, annual testing is required to demonstrate compliance with the emissions limits for the sulfur dioxide, sulfuric acid mist and nitrogen oxides: EPA Methods 1, 2, 3, 4, 6C, 7E, and 8 contained in Appendix A of 40 CFR 60.

**APPENDIX BACT, PSD-FL-355**  
**Permit No. PSD-FL-355/0570005-021-AC**

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**CF Industries, Inc.**  
**Plant City Phosphate Complex**  
**PSD-FL-355/0570005-021-AC**  
**Plant City, Hillsborough County**

CF Industries, Inc. is proposing to modify the B Sulfuric Acid Plant (SAP) and the A and B Phosphoric Acid Plants (PAPs) at its Plant City Phosphate Complex in Plant City, Florida. The proposed project includes an increase in the production rate of the existing B SAP from 1,300 to 1,600 tons per day (TPD) of 100-percent H<sub>2</sub>SO<sub>4</sub>. The proposed changes will also include modifications to increase the A and B PAP maximum permitted production rate of phosphoric acid by 20 percent. This will allow the A PAP permitted process rate to increase from 1,416 to 1,699 TPD of 100-percent rock phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>). This will also allow the B PAP permitted process rate to increase from 2,107 to 2,530 TPD of 100-percent rock P<sub>2</sub>O<sub>5</sub>.

CF Industries, Inc. is classified as a Major or Title V Source of air pollution based on Rule 62-210.200(184), F.A.C. because emissions of at least one regulated air pollutant exceed 100 tons per year (TPY). The facility is also a major facility for hazardous air pollutants because emissions of hydrogen fluoride (HF) exceed 10 TPY.

As a result of this project, increases in emissions of fluoride (F), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), sulfuric acid mist (SAM), carbon monoxide (CO), volatile organic compounds (VOC), particulate matter (PM) and particulate matter less than or equal to 10 micrometers (PM<sub>10</sub>) from the proposed modifications may occur.

Additionally, based on this modification, potential emissions of F, SO<sub>2</sub>, NO<sub>x</sub>, SAM, PM, and PM<sub>10</sub> will exceed the significant emission rates listed in Rule 62-210.200(277), Florida Administrative Code (F.A.C.). The project is therefore subject to Prevention of Significant Deterioration (PSD) review for F, SO<sub>2</sub>, NO<sub>x</sub>, SAM, PM, and PM<sub>10</sub> in accordance with Rule 62-212.400, F.A.C.

A Best Available Control Technology (BACT) determination is part of the review required by Rules 62-210.200(40) and Rule 62-212.400(10), F.A.C. Rule 62-212.400(10)(c), F.A.C. requires BACT only for those emission units where a physical change or a change in the method of operation is proposed. Since the X, Y and Z DAP/MAP plants are not undergoing a physical change or change in the method of operation, BACT is not required for these units. Therefore, only the B SAP and the A and B PAPs require a BACT analysis. The B SAP emits SO<sub>2</sub>, SAM, and NO<sub>x</sub> and the PAPs only emit F. Therefore, only F emissions from the PAPs and SO<sub>2</sub>, SAM and NO<sub>x</sub> emissions from the B SAP require a BACT analysis.

Descriptions of the process, project, BACT determination, air quality effects, and rule applicability are given in the Technical Evaluation and Preliminary Determination, accompanying the Department's Intent to Issue.

**APPENDIX BACT, PSD-FL-355**  
**Permit No. PSD-FL-355/0570005-021-AC**

The Department specifies the following as BACT:

*B Sulfuric Acid Plant*

<b>POLLUTANT</b>	<b>EMISSION LIMIT</b>	<b>LIMIT BASIS</b>	<b>CONTROL TECHNOLOGY</b>
SO <sub>2</sub>	233.3 lb/hr and 1,022 TPY	3.5 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub> for 3-hour rolling average	Single-absorption system with two-stage ammonia scrubber
SAM	5.0 lb/hr and 21.9 TPY	0.075 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	Mist eliminator
NO <sub>x</sub>	8.0 lb/hr and 35.0 TPY	0.12 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	Good combustion practices

*A Phosphoric Acid Plant*

<b>POLLUTANT</b>	<b>EMISSION LIMIT</b>	<b>LIMIT BASIS</b>	<b>CONTROL TECHNOLOGY</b>
F	0.85 lb/hr and 3.7 TPY	0.012 lb F/ton P <sub>2</sub> O <sub>5</sub> input	Packed bed scrubber and wet cyclonic scrubber

*B Phosphoric Acid Plant*

<b>POLLUTANT</b>	<b>EMISSION LIMIT</b>	<b>LIMIT BASIS</b>	<b>CONTROL TECHNOLOGY</b>
F	1.26 lb/hr and 5.5 TPY	0.012 lb F/ton P <sub>2</sub> O <sub>5</sub> input	Packed bed scrubber

Compliance with the emission limits shall be demonstrated annually in accordance with the following EPA Reference Methods as contained in 40 CFR 60, Appendix A or as otherwise approved in writing by the Department:

<b>EMISSION UNIT</b>	<b>POLLUTANT</b>	<b>EPA REFERENCE METHOD</b>
B SAP	SO <sub>2</sub>	6 or 6C
	SAM	8
	NO <sub>x</sub>	7 or 7E
	VE	9

<b>EMISSION UNIT</b>	<b>POLLUTANT</b>	<b>EPA REFERENCE METHOD</b>
A and B PAP	F	13A or 13B

**APPENDIX CAM**  
**COMPLIANCE ASSURANCE MONITORING REQUIREMENTS**

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**Compliance Assurance Monitoring Requirements**

Pursuant to Rule 62-213.440(1)(b)1.a., F.A.C., the CAM plans that are included in this appendix contain the monitoring requirements necessary to satisfy 40 CFR 64. Conditions 1. – 17. are generic conditions applicable to all emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the attached tables, as submitted by the applicant and approved by the Department.

**40 CFR 64.6 Approval of Monitoring.**

1. The attached CAM plan(s), as submitted by the applicant, is/are approved for the purposes of satisfying the requirements of 40 CFR 64.3.

[40 CFR 64.6(a)]

2. The attached CAM plan(s) include the following information:

- (i) The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);
- (ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and
- (iii) The performance requirements established to satisfy 40 CFR 64.3(b) or (d), as applicable.

[40 CFR 64.6(c)(1)]

3. The attached CAM plan(s) describe the means by which the owner or operator will define an exceedance of the permitted limits or an excursion from the stated indicator ranges and averaging periods for purposes of responding to (see **CAM Conditions 5. - 9.**) and reporting exceedances or excursions (see **CAM Conditions 10. – 14.**).

[40 CFR 64.6(c)(2)]

4. The permittee is required to conduct the monitoring specified in the attached CAM plan(s) and shall fulfill the obligations specified in the conditions below (see **CAM Conditions 5. - 17.**).

[40 CFR 64.6(c)(3)]

**40 CFR 64.7 Operation of Approved Monitoring.**

5. Commencement of operation. The owner or operator shall conduct the monitoring required under this appendix upon the effective date of this Title V permit.

[40 CFR 64.7(a)]

6. Proper maintenance. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[40 CFR 64.7(b)]

7. Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other

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## APPENDIX CAM

### COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

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periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 64.7(c)]

#### 8. Response to excursions or exceedances.

- a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions, if allowed by this permit). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR 64.7(d)(1) & (2)]

9. Documentation of need for improved monitoring. If the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.7(e)]

#### **40 CFR 64.8 Quality Improvement Plan (QIP) Requirements.**

10. Based on the results of a determination made under **CAM Condition 8b.**, above, the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with **CAM Condition 4.**, an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, may require the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

[40 CFR 64.8(a)]

#### 11. Elements of a QIP:

- a. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
- b. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
  - (i) Improved preventive maintenance practices.
  - (ii) Process operation changes.

## APPENDIX CAM

### COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

- (iii) Appropriate improvements to control methods.
- (iv) Other steps appropriate to correct control performance.
- (v) More frequent or improved monitoring (only in conjunction with one or more steps under **CAM Condition 11.b(i)** through **(iv)**, above).

[40 CFR 64.8(b)]

- 12.** If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

[40 CFR 64.8(c)]

- 13.** Following implementation of a QIP, upon any subsequent determination pursuant to **CAM Condition 8b.**, the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:

- a. Failed to address the cause of the control device performance problems; or
- b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

[40 CFR 64.8(d)]

- 14.** Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40 CFR 64.8(e)]

#### **40 CFR 64.9 Reporting And Recordkeeping Requirements.**

##### **15. General reporting requirements.**

- a. On and after the date specified in **CAM Condition 5.** by which the owner or operator must use monitoring that meets the requirements of this appendix, the owner or operator shall submit monitoring reports semi-annually to the permitting authority in accordance with Rule 62-213.440(1)(b)3.a., F.A.C.
- b. A report for monitoring under this part shall include, at a minimum, the information required under Rule 62-213.440(1)(b)3.a., F.A.C., and the following information, as applicable:
  - (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
  - (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
  - (iii) A description of the actions taken to implement a QIP during the reporting period as specified in **CAM Conditions 10.** through **14.** Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR 64.9(a)]

##### **16. General recordkeeping requirements.**

- a. The owner or operator shall comply with the recordkeeping requirements specified in Rule 62-213.440(1)(b)2., F.A.C. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to **CAM Conditions 10.** through **14.** and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

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### COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

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- b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9(b)]

#### **40 CFR 64.10 Savings Provisions.**

17. It should be noted that nothing in this appendix shall:

- a. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this appendix shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under Title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.
- b. Restrict or abrogate the authority of the Administrator or the permitting authority to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.
- c. Restrict or abrogate the authority of the Administrator or permitting authority to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.

[40 CFR 64.10]

**Emissions Unit -032**

Phosphoric Acid Cleanup  
Fluoride Emissions Controlled By Horizontal, Cross-Flow, Packed-Bed Scrubber

**APPENDIX CAM**  
**COMPLIANCE ASSURANCE MONITORING REQUIREMENTS**

**Section I: Monitoring Approach**

	<b>Indicator No. 1</b>	<b>Indicator No. 2</b>
<b>I. Indicator</b>	Total Gas Pressure Drop	Liquid Flow Rate
<b>II. Measurement Approach</b>	Pressure drop is measured with a differential pressure transmitter.	Liquid flow rate is monitored with a flow meter.
<b>III. Indicator Range</b>	<p>The indicator range is:  <b>Min: 1.2 inches W.C.</b>  <b>Max: 10.7 inches W.C.</b></p> <p>The indicator range is established as described below.</p> <p>An excursion is defined as operation outside of the established indicator range. Excursions will trigger an inspection, corrective action or a re-test, and a reporting requirement.</p>	<p>The indicator range is:  <b>Min: 428 GPM</b>  <b>Max: 716 GPM</b></p> <p>The indicator range is established as described below.</p> <p>An excursion is defined as operation outside of the established indicator range. Excursions will trigger an inspection, corrective action or a re-test, and a reporting requirement.</p>
<b>IV. Performance Criteria</b>		
<b>a. Data Representativeness</b>	The minimum accuracy of the device is $\pm 5\%$ .	The minimum accuracy of the device is $\pm 5\%$ .
<b>b. Verification of Operational Status</b>	NA	NA
<b>c. QA/QC Practices and Criteria</b>	The device is calibrated quarterly.	Monitoring equipment and process downtime is recorded in a log. The flow sensor is calibrated quarterly.
<b>d. Monitoring Frequency</b>	Monitored continuously.	Monitored continuously.
<b>e. Data Collection Procedures</b>	Recorded continuously to a computer or the operator records the scrubber pressure drop once every two hours on the scrubber operating log.	Recorded continuously to a computer or the operator records the scrubber liquid flow rate once every two hours on the scrubber operating log.
<b>f. Averaging Period</b>	Daily average.	Daily average.

**APPENDIX CAM**  
**COMPLIANCE ASSURANCE MONITORING REQUIREMENTS**

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**Section II: Monitoring Approach**

To establish and reestablish the indicator ranges, the permittee shall use either MACT Option 1 as specified in A. or MACT Option 2 as specified in B. MACT Options 1 and 2 are taken from 40 CFR 63, Subpart BB.

**A. MACT Option 1**

**Indicator Range Defined**

1. Each indicator range is established in accordance with this procedure under this CAM Plan.

The permittee shall follow the specific procedures referred to as MACT Option 1 (see 40 CFR 63.625(f)(1)) as it applies to a DAP Plant). The indicator (allowable) range under this approved CAM Plan is established based on the most recently completed compliance test results for the individual emission unit provided by the applicant.

- a. The indicator range consists of a minimum and maximum value. The minimum value is 20% less than the test average value. The maximum value is 20% more than the test average value. The test average value shall be the average of three valid individual compliance test runs, not the value from an individual test run. In no case shall failed tests be used in establishing ranges.

[40 CFR 64.6(c)(2); Rule 62-213.440(l)(b)l.a., F.A.C.]

**Reestablishment of Indicator Range**

2. Each indicator range is reestablished in accordance with this procedure under this CAM Plan. The permittee shall follow the specific procedures referred to as MACT Option (1) (see 40 CFR 63.625(f)(1)) as it applies to a DAP Plant) to reestablish each indicator range.

The indicator range shall be reestablished in accordance with the following conditions:

- a. Upon successful completion of each required annual compliance test, the indicator values during testing shall be used to reestablish the indicator range;
- b. Updated tables shall be submitted with the compliance test results. The reestablished minimum and maximum values of the indicator range shall be clearly shown in the tables; and,
- c. Upon establishment of a new indicator range the permittee shall operate under the new indicator range.

[40 CFR 64.6(c)(2); Rule 62-213.440(l)(b)l.a., F.A.C. and Rule 62-297.310(7)(b), F.A.C.]

**B. MACT Option 2**

**Indicator Range Defined**

1. Each indicator range is defined in accordance with this procedure under this CAM Plan.

The permittee shall follow the specific procedures referred to as MACT Option 2 (see 40 CFR 63.625(f)(2) as it applies to a DAP Plant). The initial indicator (allowable) range under this approved CAM Plan is established based on the completed compliance test results for the individual emission unit provided by the applicant.

- a. The indicator range consists of a minimum and maximum value. The minimum value is the lowest test average value from the historical data set. The maximum value is the highest test average value

## APPENDIX CAM

### COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

from the historical data set. The test average value shall be the average of three valid individual compliance test runs, not the value from an individual test run. In no case shall failed tests be used in establishing ranges.

- b. The initial "allowable range" as established under the MACT used for this CAM Plan must be submitted to the Department for review and approval.

[40 CFR 64.6(c)(2); Rule 62-213.440(l)(b)l.a., F.A.C.]

#### Reestablishment of Indicator Range

2. Each indicator range is reestablished in accordance with this procedure under this CAM Plan. The permittee shall follow the specific procedures referred to as MACT Option (2) (see 40 CFR 63.625(f)(2) as it applies to a DAP Plant) to reestablish each indicator range.

The indicator range shall be reestablished in accordance with the following conditions:

- a. Upon successful completion of each required annual compliance test, the indicator values during testing shall be used to reestablish the indicator range;
- b. The indicator values during testing shall be added into the individual emission unit compliance test results historical data set and a new indicator range as defined in l.a. above shall be established.
- c. Updated tables shall be submitted with each compliance test result. The permittee shall indicate whether or not the indicator range has changed as a result of the annual compliance testing. The reestablished minimum and maximum values of the indicator range shall be clearly shown in the tables submitted; and,
- d. Upon establishment of a new indicator range the permittee shall operate under the new indicator range.

[40 CFR 64.6(c)(2); Rule 62-213.440(l)(b)1.a.,F.A.C.]

### **Section III: Justification**

#### **A. Rationale for Selection of Performance Indicators**

Based on EPA regulations and industry practice, the performance indicators selected were the total gas pressure drop and liquid flow rate. These parameters have been widely accepted by the Department to provide reasonable assurance of proper scrubber operation and the resulting emission control.

#### **B. Rationale for Defining Performance Indicator Ranges**

Under CAM, an "indicator range" is similar to a MACT "allowable range" for an air pollution control device's operating parameter. Under MACT, the "allowable range" is established based on compliance tests.

The indicator range in this CAM Plan is based on the MACT. Each indicator (allowable) range is established based on completed compliance test results.

The MACT contains two methodologies to establish "allowable ranges." The MACT "allowable range" must be established using the methodology of either 40 CFR 63.625(f)(1) or (2), as it applies to a DAP plant, as discussed above.

#### **C. Rationale for Reestablishment of Indicator Ranges**

The federal regulation for CAM allows the permit to specify the procedures to change or "reestablish" indicator ranges, see 40 CFR 64.6(c)(2). The procedure developed to change an indicator range under this CAM Plan and was based on the EPA regulations for phosphate fertilizer plants contained in 40 CFR 63

## APPENDIX CAM

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### COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

Subpart BB. The specific procedures requiring changes to a "baseline average" and the "allowable range" under Subpart BB are found at 40 CFR 63.625(f)(1) & (2).

#### **D. Rationale for Selection of Averaging Periods**

EPA suggests data be averaged "consistent with the characteristics and typical variability of the pollutant-specific emissions unit ..." (see 40 CFR 64.3(b)(4)(i)). The averaging period could be based on the size of the PSEU (pollutant specific emissions unit) (see 40 CFR 64.3(b)(4)(ii) & (iii)). Also, at 40 CFR 64.3(c) "the level of actual emissions relative to the compliance limitation" could be considered in the monitoring design, e.g., averaging period. The CAM regulation implies a minimum averaging period of daily (24hours) at 40 CFR 64.3(b)(4)(iii). This PSEU is classified as a 'major PSEU' under 40 CFR 64.3(b)(4)(ii). The MACT at 40 CFR 63.624 specifies an averaging period of daily (24-hours). Accordingly, a 24-hour (daily) block average period was selected as appropriate in this updated CAM Plan.

**APPENDIX CP - 1**  
**COMPLIANCE PLAN**

**Compliance Plan**

In accordance with Rule 62-213.440(2), Florida Administrative Code (F.A.C.), this compliance plan is being included as part of the Title V Permit Revision to bring CF Industries, Inc. (CFI) into compliance. The facility is located in Hillsborough County at 10608 Paul Buchman Highway, Plant City, Florida. Specifically, the compliance plan covers uncompleted tasks listed below.

The dates listed in the table are tentative and depend upon budgeting and turnaround schedules. The permittee shall provide the Department with quarterly updates in writing of any changes to the tentative compliance schedule.

1. Construction Permit 0570005-021-AC:

<b>Affected EU. ID No.</b>	<b>Description</b>	<b>Task Description</b>	<b>Compliance Schedule</b>
003	“B” SAP	Installation of another pad in absorber.	2011 -12
003	“B” SAP	Re-installation Apex demister if flat pad is inadequate	2011 -12
004 & 009	“A” PAP and “B” PAP	Increase flash cooler pumping for “A” PAP; add 3 <sup>rd</sup> pump and replace existing pumps in “B” PAP; and finish piping replacements from PAPs to DAP/MAP and ACU.	2012 - 13

Most of the tasks associated with the projects listed above have been completed and the affected emission units have been tested at the higher operational rates. Items completed prior to the submittal of the TV Renewal Application have been incorporated into this permit. This compliance plan covers the remaining tasks which are not expected to result in increased production or emissions beyond that already achieved by the modified plants.

2. Construction Permit 0570005-038-AC:

<b>Affected EU. ID No.</b>	<b>Description</b>	<b>Task Description</b>	<b>Compliance Schedule</b>
012	X DAP/MAP	Burner replacement; notification of operation commencement; notification of compliance testing; and compliance testing for fluorides and PM.	2011 -13

3. Construction Permit 0570005-044-AC:

<b>Affected EU. ID No.</b>	<b>Description</b>	<b>Task Description</b>	<b>Compliance Schedule</b>
004	A PAP	Cyclonic scrubber shell replacement; notification of operation commencement; notification of compliance testing; and compliance testing for fluorides.	2011 -13

*Note: The three items shown above are based on information submitted by CF Industries, Inc. on January 25, 2011 and revised August 15, 2011.*

**APPENDIX CP - 1**  
**COMPLIANCE PLAN**

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4. Construction Permit 0570005-047-AC:

<b>Affected EU. ID No.</b>	<b>Description</b>	<b>Task Description</b>	<b>Compliance Schedule</b>
003	B SAP	Install a larger diameter (~36") carryover return; increase blower capacity (to ~2400 cfm); replace mist eliminator, other than like-kind; install larger diameter (~36") stripper tower, if needed. Also provide notification of operation commencement; notification of compliance testing; and compliance testing for SAM, NOx and visible emissions.	2012 -14

## APPENDIX NESHAP - 40 CFR 61, SUBPART A

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Federal Revision Date: September 13, 2010

Standardized Conditions Revision Date: June 15, 2011

### Subpart A - General Provisions

#### § 61.01 Lists of pollutants and applicability of part 61.

- (a) The following list presents the substances that, pursuant to section 112 of the Act, have been designated as hazardous air pollutants. The Federal Register citations and dates refer to the publication in which the listing decision was originally published.

Asbestos (36 FR 5931; Mar. 31, 1971)  
Benzene (42 FR 29332; June 8, 1977)  
Beryllium (36 FR 5931; Mar. 31, 1971)  
Coke Oven Emissions (49 FR 36560; Sept. 18, 1984)  
Inorganic Arsenic (45 FR 37886; June 5, 1980)  
Mercury (36 FR 5931; Mar. 31, 1971)  
Radionuclides (44 FR 76738; Dec. 27, 1979)  
Vinyl Chloride (40 FR 59532; Dec. 24, 1975)

- (b) The following list presents other substances for which a Federal Register notice has been published that included consideration of the serious health effects, including cancer, from ambient air exposure to the substance.

Acrylonitrile (50 FR 24319; June 10, 1985)  
1,3-Butadiene (50 FR 41466; Oct. 10, 1985)  
Cadmium (50 FR 42000; Oct. 16, 1985)  
Carbon Tetrachloride (50 FR 32621; Aug. 13, 1985)  
Chlorinated Benzenes (50 FR 32628; Aug. 13, 1985)  
Chlorofluorocarbon—113 (50 FR 24313; June 10, 1985)  
Chloroform (50 FR 39626; Sept. 27, 1985)  
Chloroprene (50 FR 39632; Sept. 27, 1985)  
Chromium (50 FR 24317; June 10, 1985)  
Copper (52 FR 5496; Feb. 23, 1987)  
Epichlorohydrin (50 FR 24575; June 11, 1985)  
Ethylene Dichloride (50 FR 41994; Oct. 16, 1985)  
Ethylene Oxide (50 FR 40286; Oct. 2, 1985)  
Hexachlorocyclopentadiene (50 FR 40154; Oct. 1, 1985)  
Manganese (50 FR 32627; Aug. 13, 1985)  
Methyl Chloroform (50 FR 24314; June 10, 1985)  
Methylene Chloride (50 FR 42037; Oct. 17, 1985)

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Nickel (51 FR 34135; Sept. 25, 1986)

Perchloroethylene (50 FR 52800; Dec. 26, 1985)

Phenol (51 FR 22854; June 23, 1986)

Polycyclic Organic Matter (49 FR 31680; Aug. 8, 1984)

Toluene (49 FR 22195; May 25, 1984)

Trichloroethylene (50 FR 52422; Dec. 23, 1985)

Vinylidene Chloride (50 FR 32632; Aug. 13, 1985)

Zinc and Zinc Oxide (52 FR 32597, Aug. 28, 1987)

- (c) This part applies to the owner or operator of any stationary source for which a standard is prescribed under this part.
- (d) In addition to complying with the provisions of this part, the owner or operator of a stationary source subject to a standard in this part may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

[50 FR 46290, Nov. 7, 1985, as amended at 51 FR 7715 and 7719, Mar. 5, 1986; 51 FR 11022, Apr. 1, 1986; 52 FR 37617, Oct. 8, 1987; 59 FR 12429, Mar. 16, 1994]

### § 61.02 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

*Act* means the Clean Air Act (42 U.S.C. 7401 *et seq.* ).

*Administrator* means the Administrator of the Environmental Protection Agency or his authorized representative.

*Alternative method* means any method of sampling and analyzing for an air pollutant which is not a reference method but which has been demonstrated to the Administrator's satisfaction to produce results adequate for the Administrator's determination of compliance.

*Approved permit program* means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

*Capital expenditure* means an expenditure for a physical or operational change to a stationary source which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the stationary source's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to a stationary source must not be reduced by any "excluded additions" as defined for stationary sources constructed after December 31, 1981, in IRS Publication 534, as would be done for tax purposes. In addition, "annual asset guideline repair allowance" may be used even though it is excluded for tax purposes in IRS Publication 534.

*Commenced* means, with respect to the definition of "new source" in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

## APPENDIX NESHAP - 40 CFR 61, SUBPART A

*Compliance schedule* means the date or dates by which a source or category of sources is required to comply with the standards of this part and with any steps toward such compliance which are set forth in a waiver of compliance under §61.11.

*Construction* means fabrication, erection, or installation of an affected facility.

*Effective date* is the date of promulgation in the Federal Register of an applicable standard or other regulation under this part.

*Existing source* means any stationary source which is not a new source.

*Force majeure* means, for purposes of §61.13, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

*Issuance* of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

*Monitoring system* means any system, required under the monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a record of emissions or process parameters.

*New source* means any stationary source, the construction or modification of which is commenced after the publication in the Federal Register of proposed national emission standards for hazardous air pollutants which will be applicable to such source.

*Owner or operator* means any person who owns, leases, operates, controls, or supervises a stationary source.

*Part 70 permit* means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

*Permit program* means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

*Permitting authority* means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

*Reference method* means any method of sampling and analyzing for an air pollutant, as described in appendix B to this part.

*Run* means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

*Standard* means a national emission standard including a design, equipment, work practice or operational standard for a hazardous air pollutant proposed or promulgated under this part.

*Startup* means the setting in operation of a stationary source for any purpose.

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*State* means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

- (1) The provisions of this part; and/or
- (2) The permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

*Stationary source* means any building, structure, facility, or installation which emits or may emit any air pollutant which has been designated as hazardous by the Administrator.

*Title V permit* means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

[44 FR 55174, Sept. 25, 1979, as amended at 50 FR 46290, Nov. 7, 1985; 59 FR 12429, Mar. 16, 1994; 72 FR 27442, May 16, 2007]

### § 61.03 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

- (a) System International (SI) units of measure:

A=ampere

g=gram

Hz=hertz

J=joule

K=degree Kelvin

kg=kilogram

m=meter

m<sup>2</sup>=square meter

m<sup>3</sup>=cubic meter

mg=milligram=10<sup>-3</sup>gram

mm=millimeter=10<sup>-3</sup>meter

Mg=megagram=10<sup>6</sup> gram

mol=mole

N=newton

ng=nanogram=10<sup>-9</sup>gram

nm=nanometer=10<sup>-9</sup>meter

Pa=pascal

s=second

V=volt

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W=watt

$\Omega$ =ohm

$\mu\text{g}$ =microgram= $10^{-6}$ gram

(b) Other units of measure:

$^{\circ}\text{C}$ =degree Celsius (centigrade)

cfm=cubic feet per minute

cc=cubic centimeter

Ci=curie

d=day

$^{\circ}\text{F}$ =degree Fahrenheit

$\text{ft}^2$  =square feet

$\text{ft}^3$  =cubic feet

gal=gallon

in=inch

in Hg=inches of mercury

in  $\text{H}_2\text{O}$ =inches of water

l=liter

lb=pound

lpm=liter per minute

min=minute

ml=milliliter= $10^{-3}$ liter

mrem=millirem= $10^{-3}$ rem

oz=ounces

pCi=picocurie= $10^{-12}$ curie

psig=pounds per square inch gage

$^{\circ}\text{R}$ =degree Rankine

$\mu\text{l}$ =microliter= $10^{-6}$ liter

v/v=volume per volume

$\text{yd}^2$  =square yards

yr=year

(c) Chemical nomenclature:

Be=beryllium

Hg=mercury

$\text{H}_2\text{O}$ =water

(d) Miscellaneous:

act=actual

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avg=average

I.D.=inside diameter

M=molar

N=normal

O.D.=outside diameter

%=percent

std=standard

[42 FR 51574, Sept. 29, 1977, as amended at 54 FR 51704, Dec. 15, 1989]

### § 61.04 Address.

- (a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices.

Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Air Management Division, U.S. Environmental Protection Agency, John F. Kennedy Federal Building, Boston, MA 02203.

Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, Federal Office Building, 26 Federal Plaza (Foley Square), New York, NY 10278.

Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, Mail Code 3AP00, 1650 Arch Street, Philadelphia, PA 19103-2029.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 345 Courtland Street, NE., Atlanta, GA 30365.

Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604-3590.

Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director, Air, Pesticides, and Toxics Division; U.S. Environmental Protection Agency, 1445 Ross Avenue, Dallas, TX 75202.

Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air, RCRA, and Toxics Division, U.S. Environmental Protection Agency, 901 N. 5th Street, Kansas City, KS 66101.

Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129.

Region IX (Arizona, California, Hawaii and Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau), Director, Air Division, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105.

Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, U.S. Environmental Protection Agency, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

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(b) Section 112(d) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce national emission standards for hazardous air pollutants for stationary sources located in such State. If the authority to implement and enforce a standard under this part has been delegated to a State, all information required to be submitted to EPA under paragraph (a) of this section shall also be submitted to the appropriate State agency (provided, that each specific delegation may exempt sources from a certain Federal or State reporting requirement). The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to EPA and the State agency. If acceptable to both the Administrator and the owner or operator of a source, notifications and reports may be submitted on electronic media. The appropriate mailing address for those States whose delegation request has been approved is as follows:

(A) [Reserved]

(B) State of Alabama: Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463.

(C) State of Alaska.

(i) Alaska Department of Environmental Conservation (ADEC), 410 Willoughby Avenue, Suite 303, Juneau, AK 99801-1795, <http://www.state.ak.us/local/akpages/ENV.CONSERV/home.htm>.

(ii) See paragraph (c)(10) of this section for a table indicating the delegation status of National Emission Standards for Hazardous Air Pollutants for Region 10—Alaska, Idaho, Oregon, and Washington.

(D) Arizona:

Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix, AZ 85007.

Maricopa County Air Quality Department, 1001 North Central Avenue, Suite 900, Phoenix, AZ 85004.

Pima County Department of Environmental Quality, 33 North Stone Avenue, Suite 700, Tucson, AZ 85701.

Pinal County Air Quality Control District, 31 North Pinal Street, Building F, Florence, AZ 85132.

Note: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.

(E) State of Arkansas: Chief, Division of Air Pollution Control, Arkansas Department of Pollution Control and Ecology, 8001 National Drive, P.O. Box 9583, Little Rock, AR 72209.

(F) California:

Amador County Air Pollution Control District, 12200-B Airport Road, Jackson, CA 95642.

Antelope Valley Air Quality Management District, 43301 Division Street, Suite 206, Lancaster, CA 93535.

Bay Area Air Quality Management District, 939 Ellis Street, San Francisco, CA 94109.

Butte County Air Quality Management District, 2525 Dominic Drive, Suite J, Chico, CA 95928.

Calaveras County Air Pollution Control District, 891 Mountain Ranch Road, San Andreas, CA 95249.

Colusa County Air Pollution Control District, 100 Sunrise Blvd., Suite A-3, Colusa, CA 95932-3246.

El Dorado County Air Quality Management District, 2850 Fairlane Court, Bldg. C, Placerville, CA 95667-4100.

Eastern Kern Air Pollution Control District, 2700 "M" Street, Suite 302, Bakersfield, CA 93301-2370.

Feather River Air Quality Management District, 1007 Live Oak Blvd., Suite B-3, Yuba City, CA 95991.

Glenn County Air Pollution Control District, 720 N. Colusa Street, P.O. Box 351, Willows, CA 95988-0351.

Great Basin Unified Air Pollution Control District, 157 Short Street, Suite 6, Bishop, CA 93514-3537.

Imperial County Air Pollution Control District, 150 South Ninth Street, El Centro, CA 92243-2801.

Lake County Air Quality Management District, 885 Lakeport Blvd., Lakeport, CA 95453-5405.

Lassen County Air Pollution Control District, 707 Nevada Street, Suite 1, Susanville, CA 96130.

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Mariposa County Air Pollution Control District, P.O. Box 5, Mariposa, CA 95338.

Mendocino County Air Quality Management District, 306 E. Gobbi Street, Ukiah, CA 95482–5511.

Modoc County Air Pollution Control District, 619 North Main Street, Alturas, CA 96101.

Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392–2310.

Monterey Bay Unified Air Pollution Control District, 24580 Silver Cloud Court, Monterey, CA 93940.

North Coast Unified Air Quality Management District, 2300 Myrtle Avenue, Eureka, CA 95501–3327.

Northern Sierra Air Quality Management District, 200 Litton Drive, Suite 320, P.O. Box 2509, Grass Valley, CA 95945–2509.

Northern Sonoma County Air Pollution Control District, 150 Matheson Street, Healdsburg, CA 95448–4908.

Placer County Air Pollution Control District, 3091 County Center Drive, Suite 240, Auburn, CA 95603.

Sacramento Metropolitan Air Quality Management District, 777 12th Street, Third Floor, Sacramento, CA 95814–1908.

San Diego County Air Pollution Control District, 10124 Old Grove Road, San Diego, CA 92131–1649.

San Joaquin Valley Air Pollution Control District, 1990 E. Gettysburg, Fresno, CA 93726.

San Luis Obispo County Air Pollution Control District, 3433 Roberto Court, San Luis Obispo, CA 93401–7126.

Santa Barbara County Air Pollution Control District, 260 North San Antonio Road, Suite A, Santa Barbara, CA 93110–1315.

Shasta County Air Quality Management District, 1855 Placer Street, Suite 101, Redding, CA 96001–1759.

Siskiyou County Air Pollution Control District, 525 So. Foothill Drive, Yreka, CA 96097–3036.

South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765–4182.

Tehama County Air Pollution Control District, P.O. Box 8069 (1750 Walnut Street), Red Bluff, CA 96080–0038.

Tuolumne County Air Pollution Control District, 22365 Airport, Columbia, CA 95310.

Ventura County Air Pollution Control District, 669 County Square Drive, 2nd Floor, Ventura, CA 93003–5417.

Yolo-Solano Air Quality Management District, 1947 Galileo Court, Suite 103, Davis, CA 95616–4882.

Note: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.

(G) State of Colorado, Air Pollution Control Division, Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80246–1530.

Note: For a table listing Region VIII's NESHAP delegation status, see paragraph (c) of this section.

(H) State of Connecticut, Bureau of Air Management, Department of Environmental Protection, State Office Building, 165 Capitol Avenue, Hartford, CT 06106.

(I) State of Delaware, Department of Natural Resources & Environmental Control, 89 Kings Highway, P.O. Box 1401, Dover, Delaware 19903.

(J) District of Columbia, Department of Public Health, Air Quality Division, 51 N Street, NE., Washington, DC 20002.

(K) State of Florida: Florida Department of Environmental Protection, Division of Air Resources Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399–2400.

(L) State of Georgia: Georgia Department of Natural Resources, Environmental Protection Division, 2 Martin Luther King Jr. Drive, SE., Suite 1152 East Floyd Tower, Atlanta, Georgia 30334–9000.

(M) Hawaii:

Clean Air Branch, Hawaii Department of Health, 919 Ala Moana Blvd., Suite 203, Honolulu, HI 96814.

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Note: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.

- (N) State of Idaho.
  - (i) Idaho Department of Environmental Conservation (IDEQ), 1410 N. Hilton, Boise, ID 83706, <http://www2.state.id.us/deq/>.
  - (ii) See paragraph (c)(10) of this section for a table indicating the delegation status of National Emission Standards for Hazardous Air Pollutants for Region 10—Alaska, Idaho, Oregon, and Washington.
- (O) State of Illinois: Illinois Environmental Protection Agency, 1021 North Grand Avenue East, Springfield, Illinois 62794.
- (P) State of Indiana: Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204.
- (Q) State of Iowa: Iowa Department of Natural Resources, Environmental Protection Division, Air Quality Bureau, 7900 Hickman Road, Suite 1, Urbandale, IA 50322.
- (R) State of Kansas: Kansas Department of Health and Environment, Bureau of Air and Radiation, 1000 S.W. Jackson, Suite 310, Topeka, KS 66612-1366.
- (S) Commonwealth of Kentucky: Commonwealth of Kentucky, Energy and Environment Cabinet, Department of Environmental Protection, Division for Air Quality, 200 Fair Oaks Lane, 1st Floor, Frankfort, Kentucky 40610-1403.  
Louisville Metro Air Pollution Control District, 850 Barret Avenue, Louisville, Kentucky 40204.
- (T) State of Louisiana: Louisiana Department of Environmental Quality, P.O. Box 4301, Baton Rouge, Louisiana 70821-4301.
- (U) State of Maine, Bureau of Air Quality Control, Department of Environmental Protection, State House, Station No. 17, Augusta, ME 04333.
- (V) State of Maryland, Department of the Environment, 1800 Washington Boulevard, Suite 705, Baltimore, Maryland 21230.
- (W) Commonwealth of Massachusetts, Division of Air Quality Control, Department of Environmental Protection, One Winter Street, 7th floor, Boston, MA 02108.
- (X) State of Michigan: Michigan Department of Natural Resources and Environment Quality, Air Quality Division, P.O. 30028, Lansing, Michigan 48909.
- (Y) State of Minnesota: Minnesota Pollution Control Agency, Division of Air Quality, 520 Lafayette Road North, St. Paul, Minnesota 55155.
- (Z) State of Mississippi: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, 515 East Amite Street, Jackson, Mississippi 39201.
- (AA) State of Missouri: Missouri Department of Natural Resources, Division of Environmental Quality, P.O. Box 176, Jefferson City, MO 65102.
- (BB) State of Montana, Department of Environmental Quality, 1520 E. 6th Ave., PO Box 200901, Helena, MT 59620-0901.

Note: For a table listing Region VIII's NESHAP delegation status, see paragraph (c) of this section.

- (CC) State of Nebraska, Nebraska Department of Environmental Control, P.O. Box 94877, State House Station, Lincoln, NE 68509.  
Lincoln-Lancaster County Health Department, Division of Environmental Health, 2200 St. Marys Avenue, Lincoln, NE 68502.
- (DD) Nevada:  
Nevada Division of Environmental Protection, 901 South Stewart Street, Suite 4001, Carson City, NV 89701-5249.

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Clark County Department of Air Quality and Environmental Management, 500 S. Grand Central Parkway, 1st Floor, P.O. Box 555210, Las Vegas, NV 89155-5210.

Washoe County Health District, Air Quality Management Division, 1001 E. 9th Street, Building A, Suite 115A, Reno, NV 89520.

Note: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.

(EE) State of New Hampshire, Air Resources Division, Department of Environmental Services, 64 North Main Street, Caller Box 2033, Concord, NH 03302-2033.

(FF) State of New Jersey: New Jersey Department of Environmental Protection, John Fitch Plaza, P.O. Box 2807, Trenton, NJ 08625.

(GG) *State of New Mexico*: New Mexico Environment Department, 1190 St. Francis Drive, P.O. Box 26110, Santa Fe, New Mexico 87502. For a list of delegated standards for New Mexico (excluding Bernalillo County and Indian country), see paragraph (c)(6) of this section.

(i) Albuquerque-Bernalillo County Air Quality Control Board, c/o Environmental Health Department, P.O. Box 1293, Albuquerque, New Mexico 87103.

(ii) [Reserved]

(HH) New York: New York State Department of Environmental Conservation, 50 Wolf Road, Albany, NY 12233, attention: Division of Air Resources.

(II) State of North Carolina: North Carolina Department of Environment and Natural Resources, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641.

Forsyth County Environmental Affairs, 537 North Spruce Street, Winston-Salem, North Carolina 27101.

Mecklenburg County Air Quality, 700 N. Tryon St., Suite 205, Charlotte, North Carolina 28202-2236.

Western North Carolina Regional Air Quality Agency, 49 Mount Carmel Road, Asheville, North Carolina 28806.

(JJ) State of North Dakota, Division of Air Quality, North Dakota Department of Health, P.O. Box 5520, Bismarck, ND 58506-5520.

Note: For a table listing Region VIII's NESHAP delegation status, see paragraph (c) of this section.

(KK) State of Ohio:

(i) Medina, Summit and Portage Counties; Director, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308.

(ii) Stark County; Director, Canton City Health Department, Air Pollution Control Division, 420 Market Avenue North, Canton, Ohio 44702-1544.

(iii) Butler, Clermont, Hamilton, and Warren Counties; Director, Hamilton County Department of Environmental Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.

(iv) Cuyahoga County; Commissioner, Cleveland Department of Public Health, Division of Air Quality, 75 Erieview Plaza 2nd Floor, Cleveland, Ohio 44114.

(v) Clark, Darke, Greene, Miami, Montgomery, and Preble Counties; Director, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, Ohio 45422-1280.

(vi) Lucas County and the City of Rossford (in Wood County); Director, City of Toledo, Division of Environmental Services, 348 South Erie Street, Toledo, OH 43604.

(vii) Adams, Brown, Lawrence, and Scioto Counties; Portsmouth Local Air Agency, 605 Washington Street, Third Floor, Portsmouth, OH 45662.

(viii) Allen, Ashland, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Marion, Mercer, Ottawa, Paulding, Putnam, Richland, Sandusky, Seneca, Van Wert Williams, Wood (Except City of Rossford),

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- and Wyandot Counties; Ohio Environmental Protection Agency, Northwest District Office, Air Pollution Control, 347 North Dunbridge Road, Bowling Green, Ohio 43402.
- (ix) Ashtabula, Carroll, Columbiana, Holmes, Lorain, and Wayne Counties; Ohio Environmental Protection Agency, Northeast District Office, Air Pollution Unit, 2110 East Aurora Road, Twinsburg, OH 44087.
  - (x) Athens, Belmont, Coshocton, Gallia, Guemsey, Harrison, Hocking, Jackson, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Tuscarawas, Vinton, and Washington Counties; Ohio Environmental Protection Agency, Southeast District Office, Air Pollution Unit, 2195 Front Street, Logan, OH 43138.
  - (xi) Champaign, Clinton, Highland, Logan, and Shelby Counties; Ohio Environmental Protection Agency, Southwest District Office, Air Pollution Unit, 401 East Fifth Street, Dayton, Ohio 45402–2911.
  - (xii) Delaware, Fairfield, Fayette, Franklin, Knox, Licking, Madison, Morrow, Pickaway, and Union Counties; Ohio Environmental Protection Agency, Central District Office, Air Pollution control, 50 West Town Street, Suite 700, Columbus, Ohio 43215.
  - (xiii) Geauga and Lake Counties; Lake County General Health District, Air Pollution Control, 33 Mill Street, Painesville, OH 44077.
  - (xiv) Mahoning and Trumbull Counties; Mahoning-Trumbull Air Pollution Control Agency, 345 Oak Hill Avenue, Suite 200, Youngstown, OH 44502.
- (LL) State of Oklahoma, Oklahoma Department of Environmental Quality, Air Quality Division, P.O. Box 1677, Oklahoma City, OK 73101–1677. For a list of delegated standards for Oklahoma (excluding Indian country), see paragraph (c)(6) of this section.
- (i) Oklahoma City and County: Director, Oklahoma City-County Health Department, 921 Northeast 23rd Street, Oklahoma City, OK 73105.
  - (ii) Tulsa County: Tulsa City-County Health Department, 4616 East Fifteenth Street, Tulsa, OK 74112.
- (MM) State of Oregon.
- (i) Oregon Department of Environmental Quality (ODEQ), 811 SW Sixth Ave, Portland, OR 97204–1390, <http://www.deq.state.or.us/>.
  - (ii) Lane Regional Air Pollution Authority (LRAPA), 1010 Main Street, Springfield, Oregon 97477, <http://www.lrapa.org>.
  - (iii) See paragraph (c)(10) of this section for a table indicating the delegation status of National Emission Standards for Hazardous Air Pollutants for Region 10—Alaska, Idaho, Oregon, and Washington.
  - (vii) [Reserved]
  - (viii) Lane Regional Air Pollution Authority, 225 North Fifth, suite 501, Springfield, OR 97477.
- (NN)
- (i) City of Philadelphia, Department of Public Health, Air Management Services, 321 University Avenue, Philadelphia, Pennsylvania 19104.
  - (ii) Commonwealth of Pennsylvania, Department of Environmental Protection, Bureau of Air Quality Control, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.
  - (iii) Allegheny County Health Department, Bureau of Environmental Quality, Division of Air Quality, 301 39th Street, Pittsburgh, Pennsylvania 15201.
- (OO) State of Rhode Island, Division of Air and Hazardous Materials, Department of Environmental Management, 291 Promenade Street, Providence, RI 02908.
- (PP) State of South Carolina: South Carolina Department of Health and Environmental Control, 2600 Bull St., Columbia, South Carolina 29201.

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(QQ) State of South Dakota, Department of Water and Natural Resources, Office of Air Quality and Solid Waste, Joe Foss Building, 523 East Capitol, Pierre, SD 57501–3181.

Note: For a table listing Region VIII's NESHAPs delegation status, see paragraph (c) of this section.

(RR) State of Tennessee: Tennessee Department of Environment and Conservation, Division of Air Pollution Control, 401 Church Street, 9th Floor, L&C Annex, Nashville, Tennessee 37243–1531.

Knox County Air Quality Management—Department of Public Health, 140 Dameron Avenue, Knoxville, Tennessee 37917.

Air Pollution Control Bureau, Metropolitan Health Department, 311 23rd Avenue North, Nashville, Tennessee 37203.

Chattanooga-Hamilton County Air Pollution Control Bureau, 6125 Preservation Drive, Chattanooga, Tennessee 37416.

Memphis-Shelby County Health Department—Air Pollution Control Program, 814 Jefferson Avenue, Memphis, Tennessee 38105.

(SS) State of Texas, Texas Air Control Board, 6330 Highway 290 East, Austin, TX 78723.

(TT) State of Utah, Division of Air Quality, Department of Environmental Quality, P.O. Box 144820, Salt Lake City, UT 84114–4820.

Note: For a table listing Region VIII's NESHAP delegation status, see paragraph (c) of this section.

(UU) State of Vermont, Air Pollution Control Division, Agency of Natural Resources, Building 3 South, 103 South Main Street, Waterbury, VT 05676.

(VV) Commonwealth of Virginia, Department of Environmental Quality, 629 East Main Street, Richmond, Virginia 23219.

(WW) State of Washington.

(i) Washington State Department of Ecology (Ecology), P.O. Box 47600, Olympia, WA 98504–7600, <http://www.ecy.wa.gov/>.

(ii) Benton Clean Air Authority (BCAA), 650 George Washington Way, Richland, WA 99352–4289, <http://www.bcaa.net/>.

(iii) Northwest Air Pollution Control Authority (NWAPA), 1600 South Second St., Mount Vernon, WA 98273–5202, <http://www.nwair.org/>.

(iv) Olympic Air Pollution Control Authority (OAPCA), 909 Sleater-Kinney Road S.E., Suite 1, Lacey, WA 98503–1128, <http://www.oapca.org/>.

(v) Puget Sound Clean Air Agency (PSCAA), 110 Union Street, Suite 500, Seattle, WA 98101–2038, <http://www.pscleanair.org/>.

(vi) Spokane County Air Pollution Control Authority (SCAPCA), West 1101 College, Suite 403, Spokane, WA 9920, <http://www.scapca.org/>.

(vii) Southwest Clean Air Agency (SWCAA), 1308 NE 134th St., Vancouver, WA 98685–2747, <http://www.swcleanair.org/>.

(viii) Yakima Regional Clean Air Agency (YRCAA), Larson Building, Suite 1016, 6 South 2nd St., Yakima WA 98901, <http://co.yakima.wa.us/cleanair/default.htm>.

(ix) See paragraph (c)(10) of this section for a table indicating the delegation status of National Emission Standards for Hazardous Air Pollutants for Region 10—Alaska, Idaho, Oregon, and Washington.

(XX) State of West Virginia, Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE., Charleston, West Virginia 25304.

(YY) State of Wisconsin: Wisconsin Department of Natural Resources, 101 South Webster St., P.O. Box 7921, Madison, Wisconsin 53707–7921. 101 South Webster St., P.O. Box 7921, Madison, Wisconsin 53707–7921.

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(ZZ) State of Wyoming, Air Quality Division, Department of Environmental Quality, 122 W. 25th St., Cheyenne, WY 82002.

(AAA) Territory of Guam: Guam Environmental Protection Agency, P.O. Box 22439 GMF, Barrigada, Guam 96921.

Note: For tables listing the delegation status of agencies in Region IX, see paragraph (c)(9) of this section.

(BBB) Commonwealth of Puerto Rico: Commonwealth of Puerto Rico Environmental Quality Board, P.O. Box 11785, Santurce, PR 00910.

(CCC) U.S. Virgin Islands: U.S. Virgin Islands Department of Conservation and Cultural Affairs, P.O. Box 578, Charlotte Amalie, St. Thomas, U.S. Virgin Islands 00801.

(DDD) American Samoa: American Samoa Environmental Protection Agency, P.O. Box PPA, Pago Pago, American Samoa 96799.

Note: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(EEE) Commonwealth of the Northern Mariana Islands: CNMI Division of Environmental Quality, P.O. Box 501304, Saipan, MP 96950.

Note: For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(c) Intentionally removed because it is not relevant to Florida.

**Editorial Note:** For Federal Register citations to §61.04 see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.fdsys.gov](http://www.fdsys.gov).

### § 61.05 Prohibited activities.

- (a) After the effective date of any standard, no owner or operator shall construct or modify any stationary source subject to that standard without first obtaining written approval from the Administrator in accordance with this subpart, except under an exemption granted by the President under section 112(c)(2) of the Act. Sources, the construction or modification of which commenced after the publication date of the standards proposed to be applicable to the sources, are subject to this prohibition.
- (b) After the effective date of any standard, no owner or operator shall operate a new stationary source subject to that standard in violation of the standard, except under an exemption granted by the President under section 112(c)(2) of the Act.
- (c) Ninety days after the effective date of any standard, no owner or operator shall operate any existing source subject to that standard in violation of the standard, except under a waiver granted by the Administrator under this part or under an exemption granted by the President under section 112(c)(2) of the Act.
- (d) No owner or operator subject to the provisions of this part shall fail to report, revise reports, or report source test results as required under this part.

[38 FR 8826, Apr. 6, 1973, as amended at 50 FR 46291, Nov. 7, 1985]

### § 61.06 Determination of construction or modification.

An owner or operator may submit to the Administrator a written application for a determination of whether actions intended to be taken by the owner or operator constitute construction or modification, or commencement thereof, of a source subject to a standard. The Administrator will notify the owner or operator of his determination within 30 days after receiving sufficient information to evaluate the application.

[50 FR 46291, Nov. 7, 1985]

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### § 61.07 Application for approval of construction or modification.

- (a) The owner or operator shall submit to the Administrator an application for approval of the construction of any new source or modification of any existing source. The application shall be submitted before the construction or modification is planned to commence, or within 30 days after the effective date if the construction or modification had commenced before the effective date and initial startup has not occurred. A separate application shall be submitted for each stationary source.
- (b) Each application for approval of construction shall include—
  - (1) The name and address of the applicant;
  - (2) The location or proposed location of the source; and
  - (3) Technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including a description of any equipment to be used for control of emissions. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.
- (c) Each application for approval of modification shall include, in addition to the information required in paragraph (b) of this section—
  - (1) The precise nature of the proposed changes;
  - (2) The productive capacity of the source before and after the changes are completed; and
  - (3) Calculations of estimates of emissions before and after the changes are completed, in sufficient detail to permit assessment of the validity of the calculations.

[50 FR 46291, Nov. 7, 1985]

### § 61.08 Approval of construction or modification.

- (a) The Administrator will notify the owner or operator of approval or intention to deny approval of construction or modification within 60 days after receipt of sufficient information to evaluate an application under §61.07.
- (b) If the Administrator determines that a stationary source for which an application under §61.07 was submitted will not cause emissions in violation of a standard if properly operated, the Administrator will approve the construction or modification.
- (c) Before denying any application for approval of construction or modification, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with—
  - (1) Notice of the information and findings on which the intended denial is based; and
  - (2) Notice of opportunity for the applicant to present, within such time limit as the Administrator shall specify, additional information or arguments to the Administrator before final action on the application.
- (d) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 days of presentation of additional information or arguments, or 60 days after the final date specified for presentation if no presentation is made.
- (e) Neither the submission of an application for approval nor the Administrator's approval of construction or modification shall—
  - (1) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or of any other applicable Federal, State, or local requirement; or
  - (2) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

[50 FR 46291, Nov. 7, 1985]

**§ 61.09 Notification of startup.**

- (a) The owner or operator of each stationary source which has an initial startup after the effective date of a standard shall furnish the Administrator with written notification as follows:
- (1) A notification of the anticipated date of initial startup of the source not more than 60 days nor less than 30 days before that date.
  - (2) A notification of the actual date of initial startup of the source within 15 days after that date.
- (b) If any State or local agency requires a notice which contains all the information required in the notification in paragraph (a) of this section, sending the Administrator a copy of that notification will satisfy paragraph (a) of this section.

[50 FR 46291, Nov. 7, 1985]

**§ 61.10 Source reporting and waiver request.**

- (a) The owner or operator of each existing source or each new source which had an initial startup before the effective date shall provide the following information in writing to the Administrator within 90 days after the effective date:
- (1) Name and address of the owner or operator.
  - (2) The location of the source.
  - (3) The type of hazardous pollutants emitted by the stationary source.
  - (4) A brief description of the nature, size, design, and method of operation of the stationary source including the operating design capacity of the source. Identify each point of emission for each hazardous pollutant.
  - (5) The average weight per month of the hazardous materials being processed by the source, over the last 12 months preceding the date of the report.
  - (6) A description of the existing control equipment for each emission point including—
    - (i) Each control device for each hazardous pollutant; and
    - (ii) Estimated control efficiency (percent) for each control device.
  - (7) A statement by the owner or operator of the source as to whether the source can comply with the standards within 90 days after the effective date.
- (b) The owner or operator of an existing source unable to comply with an applicable standard may request a waiver of compliance with that standard for a period not exceeding 2 years after the effective date. Any request shall be in writing and shall include the following information:
- (1) A description of the controls to be installed to comply with the standard.
  - (2) A compliance schedule, including the date each step toward compliance will be reached. The list shall include as a minimum the following dates:
    - (i) Date by which contracts for emission control systems or process changes for emission control will be awarded, or date by which orders will be issued for the purchase of component parts to accomplish emission control or process changes;
    - (ii) Date of initiation of onsite construction or installation of emission control equipment or process change;
    - (iii) Date by which onsite construction or installation of emission control equipment or process change is to be completed; and
    - (iv) Date by which final compliance is to be achieved.

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- (3) A description of interim emission control steps which will be taken during the waiver period.
- (c) Any change in the information provided under paragraph (a) of this section or §61.07(b) shall be provided to the Administrator within 30 days after the change. However, if any change will result from modification of the source, §§61.07(c) and 61.08 apply.
- (d) A possible format for reporting under this section is included as appendix A of this part. Advice on reporting the status of compliance may be obtained from the Administrator.
- (e) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.
- (f) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.
- (g) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (j) of this section.
- (h) If an owner or operator of a stationary source in a State with delegated authority is required to submit reports under this part to the State, and if the State has an established timeline for the submission of reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the source is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (j) of this section.
- (i) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 60, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the source is required to be in compliance with the applicable subpart in this part, or 1 year after the source is required to be in compliance with the applicable part 60 or part 63 standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (j) of this section.
- (j)
- (1)
- (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (j)(2) and (j)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.
- (ii) An owner or operator shall request the adjustment provided for in paragraphs (j)(2) and (j)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.
- (2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner

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or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

- (3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.
- (4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[38 FR 8826, Apr. 6, 1973, as amended at 50 FR 46292, Nov. 7, 1985; 59 FR 12430, Mar. 16, 1994]

### § 61.11 Waiver of compliance.

- (a) Based on the information provided in any request under §61.10, or other information, the Administrator may grant a waiver of compliance with a standard for a period not exceeding 2 years after the effective date of the standard.
- (b) The waiver will be in writing and will—
  - (1) Identify the stationary source covered;
  - (2) Specify the termination date of the waiver;
  - (3) Specify dates by which steps toward compliance are to be taken; and
  - (4) Specify any additional conditions which the Administrator determines necessary to assure installation of the necessary controls within the waiver period and to assure protection of the health of persons during the waiver period.
- (c) The Administrator may terminate the waiver at an earlier date than specified if any specification under paragraphs (b)(3) and (b)(4) of this section are not met.
- (d) Before denying any request for a waiver, the Administrator will notify the owner or operator making the request of the Administrator's intention to issue the denial, together with—
  - (1) Notice of the information and findings on which the intended denial is based; and
  - (2) Notice of opportunity for the owner or operator to present, within the time limit the Administrator specifies, additional information or arguments to the Administrator before final action on the request.
- (e) A final determination to deny any request for a waiver will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 60 days after presentation of additional information or argument; or within 60 days after the final date specified for the presentation if no presentation is made.
- (f) The granting of a waiver under this section shall not abrogate the Administrator's authority under section 114 of the Act.

[50 FR 46292, Nov. 7, 1985]

### § 61.12 Compliance with standards and maintenance requirements.

- (a) Compliance with numerical emission limits shall be determined in accordance with emission tests established in §61.13 or as otherwise specified in an individual subpart.
- (b) Compliance with design, equipment, work practice or operational standards shall be determined as specified in an individual subpart.
- (c) The owner or operator of each stationary source shall maintain and operate the source, including associated equipment for air pollution control, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of the source.

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(d)

- (1) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions of a pollutant from a source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice or operational standard, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with the standard. The notice will restrict the permission to the source(s) or category(ies) of sources on which the alternative means will achieve equivalent emission reductions. The notice may condition permission on requirements related to the operation and maintenance of the alternative means.
  - (2) Any notice under paragraph (d)(1) shall be published only after notice and an opportunity for a hearing.
  - (3) Any person seeking permission under this subsection shall, unless otherwise specified in the applicable subpart, submit a proposed test plan or the results of testing and monitoring, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring.
- (e) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

[50 FR 46292, Nov. 7, 1985, as amended 62 FR 8328, Feb. 24, 1997]

### § 61.13 Emission tests and waiver of emission tests.

- (a) Except as provided in paragraphs (a)(3), (a)(4), (a)(5), and (a)(6) of this section, if required to do emission testing by an applicable subpart and unless a waiver of emission testing is obtained under this section, the owner or operator shall test emissions from the source:
- (1) Within 90 days after the effective date, for an existing source or a new source which has an initial startup date before the effective date.
  - (2) Within 90 days after initial startup, for a new source which has an initial startup date after the effective date.
  - (3) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline specified in paragraphs (a)(1) or (a)(2) of this section or beyond a deadline established pursuant to the requirements under paragraph (b) of this section, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.
  - (4) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.
  - (5) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.
  - (6) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(3), (a)(4), and (a)(5) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.
- (b) The Administrator may require an owner or operator to test emissions from the source at any other time when the action is authorized by section 114 of the Act.
- (c) The owner or operator shall notify the Administrator of the emission test at least 30 days before the emission test to allow the Administrator the opportunity to have an observer present during the test.

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- (d) If required to do emission testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source shall provide emission testing facilities as follows:
- (1) Sampling ports adequate for test methods applicable to each source.
  - (2) Safe sampling platform(s).
  - (3) Safe access to sampling platform(s).
  - (4) Utilities for sampling and testing equipment.
  - (5) Any other facilities that the Administrator needs to safely and properly test a source.
- (e) Each emission test shall be conducted under such conditions as the Administrator shall specify based on design and operational characteristics of the source.
- (1) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.
    - (i) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3C of Appendix A–3 of Part 60, Methods 6C, 7E, 9, and 10 of Appendix A–4 of Part 60, Method 18 of Appendix A–6 of Part 60, Methods 20, 22, and 25A of Appendix A–7 of Part 60, and Methods 303, 318, 320, and 321 of Appendix A of Part 63. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. “Commercially available” means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, [www.epa.gov/ttn/emc](http://www.epa.gov/ttn/emc), to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the

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compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and then report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

- (ii) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:
- (A) Preparing the sample;
  - (B) Confirming the true concentration of the sample;
  - (C) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range;
  - (D) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
  - (E) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
  - (F) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
  - (G) Reporting the results from each audit sample in a timely manner to the compliance authority and to the source owner, operator, or representative by the AASP. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.
  - (H) Evaluating the acceptance limits of samples at least once every two years to determine in consultation with the voluntary consensus standard body if they should be changed;
  - (I) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.
- (iii) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit or samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

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- (A) Checking audit samples to confirm their true value as reported by the AASP.
  - (B) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years.
  - (C) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.
  - (iv) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget *Circular A-119*. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at [http://standards.gov/standards\\_gov/a119.cfm](http://standards.gov/standards_gov/a119.cfm). The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (e)(1)(ii) through (iv) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.
- (2) [Reserved]
- (f) Unless otherwise specified in an applicable subpart, samples shall be analyzed and emissions determined within 30 days after each emission test has been completed. The owner or operator shall report the determinations of the emission test to the Administrator by a registered letter sent before the close of business on the 31st day following the completion of the emission test.
  - (g) The owner or operator shall retain at the source and make available, upon request, for inspection by the Administrator, for a minimum of 2 years, records of emission test results and other data needed to determine emissions.
- (h)
- (1) Emission tests shall be conducted as set forth in this section, the applicable subpart and appendix B unless the Administrator—
    - (i) Specifies or approves the use of a reference method with minor changes in methodology; or
    - (ii) Approves the use of an alternative method; or
    - (iii) Waives the requirement for emission testing because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the source is in compliance with the standard.
  - (2) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative method, he may require the use of a reference method. If the results of the reference and alternative methods do not agree, the results obtained by the reference method prevail.
  - (3) The owner or operator may request approval for the use of an alternative method at any time, except—
    - (i) For an existing source or a new source that had an initial startup before the effective date, any request for use of an alternative method during the initial emission test shall be submitted to the Administrator within 30 days after the effective date, or with the request for a waiver of compliance if one is submitted under §60.10(b); or
    - (ii) For a new source that has an initial startup after the effective date, any request for use of an alternative method during the initial emission test shall be submitted to the Administrator no later than with the notification of anticipated startup required under §60.09.
- (i)

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- (1) Emission tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the standard, or the source is being operated under a waiver or compliance, or the owner or operator has requested a waiver of compliance and the Administrator is still considering that request.
- (2) If application for waiver of the emission test is made, the application shall accompany the information required by §61.10 or the notification of startup required by §61.09, whichever is applicable. A possible format is contained in appendix A to this part.
- (3) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later cancelling the waiver. The cancellation will be made only after notice is given to the owner or operator of the source.

[50 FR 46292, Nov. 7, 1985, as amended at 72 FR 27442, May 16, 2007; 75 FR 55652, Sept. 13, 2010]

### § 61.14 Monitoring requirements.

- (a) Unless otherwise specified, this section applies to each monitoring system required under each subpart which requires monitoring.
- (b) Each owner or operator shall maintain and operate each monitoring system as specified in the applicable subpart and in a manner consistent with good air pollution control practice for minimizing emissions. Any unavoidable breakdown or malfunction of the monitoring system should be repaired or adjusted as soon as practicable after its occurrence. The Administrator's determination of whether acceptable operating and maintenance procedures are being used will be based on information which may include, but not be limited to, review of operating and maintenance procedures, manufacturer recommendations and specifications, and inspection of the monitoring system.
- (c) When required by the applicable subpart, and at any other time the Administrator may require, the owner or operator of a source being monitored shall conduct a performance evaluation of the monitoring system and furnish the Administrator with a copy of a written report of the results within 60 days of the evaluation. Such a performance evaluation shall be conducted according to the applicable specifications and procedures described in the applicable subpart. The owner or operator of the source shall furnish the Administrator with written notification of the date of the performance evaluation at least 30 days before the evaluation is to begin.
- (d) When the effluents from a single source, or from two or more sources subject to the same emission standards, are combined before being released to the atmosphere, the owner or operator shall install a monitoring system on each effluent or on the combined effluent. If two or more sources are not subject to the same emission standards, the owner or operator shall install a separate monitoring system on each effluent, unless otherwise specified. If the applicable standard is a mass emission standard and the effluent from one source is released to the atmosphere through more than one point, the owner or operator shall install a monitoring system at each emission point unless the installation of fewer systems is approved by the Administrator.
- (e) The owner or operator of each monitoring system shall reduce the monitoring data as specified in each applicable subpart. Monitoring data recorded during periods of unavoidable monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in any data average.
- (f) The owner or operator shall maintain records of monitoring data, monitoring system calibration checks, and the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative. These records shall be maintained at the source for a minimum of 2 years and made available, upon request, for inspection by the Administrator.
- (g)
  - (1) Monitoring shall be conducted as set forth in this section and the applicable subpart unless the Administrator—
    - (i) Specifies or approves the use of the specified monitoring requirements and procedures with minor changes in methodology; or
    - (ii) Approves the use of alternatives to any monitoring requirements or procedures.
  - (2) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, the Administrator may require the monitoring requirements and procedures specified in this part.

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[50 FR 46293, Nov. 7, 1985]

### § 61.15 Modification.

- (a) Except as provided under paragraph (d) of this section, any physical or operational change to a stationary source which results in an increase in the rate of emission to the atmosphere of a hazardous pollutant to which a standard applies shall be considered a modification.
- (b) Upon modification, an existing source shall become a new source for each hazardous pollutant for which the rate of emission to the atmosphere increases and to which a standard applies.
- (c) Emission rate shall be expressed as kg/hr of any hazardous pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine the emission rate:
  - (1) Emission factors as specified in the background information document (BID) for the applicable standard, or in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where use of emission factors demonstrates that the emission rate will clearly increase or clearly not increase as a result of the physical or operational change.
  - (2) Material balances, monitoring data, or manual emission tests in cases where use of emission factors, as referenced in paragraph (c)(1) of this section, does not demonstrate to the Administrator's satisfaction that the emission rate will clearly increase or clearly not increase as a result of the physical or operational change, or where an interested person demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator using emission factors. When the emission rate is based on results from manual emission tests or monitoring data, the procedures specified in appendix C of 40 CFR part 60 shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator. At least three test runs must be conducted before and at least three after the physical or operational change. If the Administrator approves, the results of the emission tests required in §61.13(a) may be used for the test runs to be conducted before the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum degree feasible for all test runs.
- (d) The following shall not, by themselves, be considered modifications under this part:
  - (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category.
  - (2) An increase in production rate of a stationary source, if that increase can be accomplished without a capital expenditure on the stationary source.
  - (3) An increase in the hours of operation.
  - (4) Any conversion to coal that meets the requirements specified in section 111(a)(8) of the Act.
  - (5) The relocation or change in ownership of a stationary source. However, such activities must be reported in accordance with §61.10(c).

[50 FR 46294, Nov. 7, 1985]

### § 61.16 Availability of information.

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter.

[38 FR 8826, Apr. 6, 1973. Redesignated at 50 FR 46294, Nov. 7, 1985]

### § 61.17 State authority.

- (a) This part shall not be construed to preclude any State or political subdivision thereof from—

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- (1) Adopting and enforcing any emission limiting regulation applicable to a stationary source, provided that such emission limiting regulation is not less stringent than the standards prescribed under this part; or
- (2) Requiring the owner or operator of a stationary source to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of the source.

[50 FR 46294, Nov. 7, 1985]

### § 61.18 Incorporations by reference.

The materials listed below are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and a notice of any change in these materials will be published in the Federal Register. The materials are available for inspection at the corresponding address noted below, and at U.S. EPA's Air Docket at 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

- (a) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM) International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA, 19428-2959; or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.
  - (1) ASTM D737-75, Standard Test Method for Air Permeability of Textile Fabrics, incorporation by reference (IBR) approved January 27, 1983 for §61.23(a).
  - (2) ASTM D835-85, Standard Specification for Refined Benzene-485, IBR approved September 14, 1989 for §61.270(a).
  - (3) ASTM D836-84, Standard Specification for Industrial Grade Benzene, IBR approved September 14, 1989 for §61.270(a).
  - (4) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for appendix B: Method 101, Section 7.1.1; Method 101A, Section 7.1.1; and Method 104, Section 7.1; Method 108, Section 7.1.3; Method 108A, Section 7.1.1; Method 108B, Section 7.1.1; Method 108C, Section 7.1.1; and Method 111, Section 7.3.
  - (5) ASTM D2267-68, 78, 88, Standard Test Method for Aromatics in Light Naphthas and Aviation Gasoline by Gas Chromatography, IBR approved September 30, 1986, for §61.67(h)(1).
  - (6) ASTM D2359-85a, 93, Standard Specification for Refined Benzene-535, IBR approved September 14, 1989 for §61.270(a).
  - (7) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved June 6, 1984 for §61.245(e)(3).
  - (8) ASTM D2504-67, 77, 88 (Reapproved 1993), Noncondensable Gases in C<sub>3</sub> and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved June 6, 1984 for §61.245(e)(3).
  - (9) ASTM D2879-83, Standard Test Method for Vapor Pressure—Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved December 14, 2000 for §61.241.
  - (10) ASTM D2986-71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for appendix B: Method 103, Section 6.1.3.
  - (11) ASTM D4420-94, Standard Test Method for Determination of Aromatics in Finished Gasoline by Gas Chromatography, IBR approved for §61.67(h)(1).
  - (12) ASTM D4734-87, 96, Standard Specification for Refined Benzene-545, IBR approved September 14, 1989 for §61.270(a).
  - (13) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §61.245(e)(3).

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- (14) ASTM E50–82, 86, 90 (Reapproved 1995), Standard Practices for Apparatus Reagents, and Safety Precautions for Chemical Analysis of Metals, IBR approved for appendix B: Method 108C, Section 6.1.4.
- (b) The following material is available from the U.S. EPA Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.
- (1) Method 601, Test Method for Purgeable Halocarbons, July 1982, IBR approved September 30, 1986, for §61.67(g)(2).
- (c) The following material is available for purchase from the American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, New York 10036.
- (1) ANSI N13.1–1969, “Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities.” IBR approved for 61.93(b)(2)(ii) and 61.107(b)(2)(ii).
- (2) ANSI/HPS N13.1–1999 “Sampling and Monitoring Releases of Airborne Radioactive Substances from the Stacks and Ducts of Nuclear Facilities,” IBR approved October 9, 2002, for §§61.93(c); 61.107(d) and Method 114, paragraph 2.1 of Appendix B to 40 CFR part 61.
- (d) The following material is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402–9325, telephone (202) 512–1800 or outside of Washington, DC area: 1–866–512–1800.
- (1) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW–846, Third Edition, November 1986, as amended by Revision I, December 1987, Order Number 955–001–00000–1:
- (i) Method 8020, Aromatic Volatile Organics, IBR approved March 7, 1990, for §61.355(c)(2)(iv)(A).
- (ii) Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series, IBR approved March 7, 1990, for §61.355(c)(2)(iv)(B).
- (iii) Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics, IBR approved March 7, 1990, for §61.355(c)(2)(iv)(C).
- (iv) Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique, IBR approved March 7, 1990, for §61.355(c)(2)(iv)(D).
- (e) The materials listed in this paragraph (e) are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.
- (1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition. February 1989. IBR approved December 14, 2000 for §61.241.
- (2) [Reserved]

[48 FR 3740, Jan. 27, 1983, as amended at 48 FR 55266, Dec. 9, 1983; 49 FR 23520, June 6, 1984; 51 FR 34914, Sept. 30, 1986; 54 FR 38073, Sept. 14, 1989; 54 FR 51704, Dec. 15, 1989; 55 FR 8341, Mar. 7, 1990; 55 FR 18331, May 2, 1990; 55 FR 22027, May 31, 1990; 55 FR 32914, Aug. 13, 1990; 65 FR 62150, Oct. 17, 2000; 65 FR 78280, Dec. 14, 2000; 67 FR 57166, Sept. 9, 2002; 69 FR 18803, Apr. 9, 2004]

### § 61.19 Circumvention.

No owner or operator shall build, erect, install, or use any article machine, equipment, process, or method, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with a visible emissions standard, and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size.

[40 FR 48299, Oct. 14, 1975. Redesignated at 50 FR 46294, Nov. 7, 1985]

## APPENDIX NESHAP - 40 CFR 61, SUBPART R

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Federal Revision Date: 10/17/00

Standardized Conditions Revision Date: June 6, 2011

### 40 CFR 61 Subpart R- National Emission Standards for Radon Emissions From Phosphogypsum Stacks:

#### §61.200 Designation of facilities.

The provisions of this subpart apply to each owner or operator of a phosphogypsum stack, and to each person who owns, sells, distributes, or otherwise uses any quantity of phosphogypsum which is produced as a result of wet acid phosphorus production or is removed from any existing phosphogypsum stack.

#### § 61.201 Definitions.

As used in this subpart, all terms not defined here have the meaning given them in the Clean Air Act or subpart A of part 61. The following terms shall have the following specific meanings:

- (a) Inactive stack means a stack to which no further routine additions of phosphogypsum will be made and which is no longer used for water management associated with the production of phosphogypsum. If a stack has not been used for either purpose for two years, it is presumed to be inactive.
- (b) Phosphogypsum is the solid waste byproduct which results from the process of wet acid phosphorus production.
- (c) Phosphogypsum stacks or stacks are piles of waste resulting from wet acid phosphorus production, including phosphate mines or other sites that are used for the disposal of phosphogypsum.

#### § 61.202 Standard.

Each person who generates phosphogypsum shall place all phosphogypsum in stacks. Phosphogypsum may be removed from a phosphogypsum stack only as expressly provided by this subpart. After a phosphogypsum stack has become an inactive stack, the owner or operator shall assure that the stack does not emit more than 20 pCi/(m<sup>2</sup>-sec) (1.9 pCi/(ft<sup>2</sup>-sec)) of radon-222 into the air.

#### §61.203 Radon monitoring and compliance procedures.

- (a) Within sixty days following the date on which a stack becomes an inactive stack, or within ninety days after the date on which this subpart first took effect if a stack was already inactive on that date, each owner or operator of an inactive phosphogypsum stack shall test the stack for radon-222 flux in accordance with the procedures described in 40 CFR part 61, appendix B, Method 115. EPA shall be notified at least 30 days prior to each such emissions test so that EPA may, at its option, observe the test. If meteorological conditions are such that a test cannot be properly conducted, then the owner or operator shall notify EPA and test as soon as conditions permit.
- (b)
  - (1) Within ninety days after the testing is required, the owner or operator shall provide EPA with a report detailing the actions taken and the results of the radon-222 flux testing. Each report shall also include the following information:
    - (i) The name and location of the facility;
    - (ii) A list of the stacks at the facility including the size and dimensions of each stack;

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- (iii) The name of the person responsible for the operation of the facility and the name of the person preparing the report (if different);
  - (iv) A description of the control measures taken to decrease the radon flux from the source and any actions taken to insure the long term effectiveness of the control measures; and
  - (v) The results of the testing conducted, including the results of each measurement.
- (2) Each report shall be signed and dated by a corporate officer in charge of the facility and contain the following declaration immediately above the signature line: "I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment. See, 18 U.S.C. 1001."
- (c) If the owner or operator of an inactive stack chooses to conduct measurements over a one year period as permitted by Method 115 in appendix B to part 61, within ninety days after the testing commences the owner or operator shall provide EPA with an initial report, including the results of the first measurement period and a schedule for all subsequent measurements. An additional report containing all the information in §61.203(b) shall be submitted within ninety days after completion of the final measurements.
  - (d) If at any point an owner or operator of a stack once again uses an inactive stack for the disposal of phosphogypsum or for water management, the stack ceases to be in inactive status and the owner or operator must notify EPA in writing within 45 days. When the owner or operator ceases to use the stack for disposal of phosphogypsum or water management, the stack will once again become inactive and the owner or operator must satisfy again all testing and reporting requirements for inactive stacks.
  - (e) If an owner or operator removes phosphogypsum from an inactive stack, the owner shall test the stack in accordance with the procedures described in 40 CFR part 61, appendix B, Method 115. The stack shall be tested within ninety days of the date that the owner or operator first removes phosphogypsum from the stack, and the test shall be repeated at least once during each calendar year that the owner or operator removes additional phosphogypsum from the stack. EPA shall be notified at least 30 days prior to an emissions test so that EPA may, at its option, observe the test. If meteorological conditions are such that a test cannot be properly conducted, then the owner shall notify EPA and test as soon as conditions permit. Within ninety days after completion of a test, the owner or operator shall provide EPA with a report detailing the actions taken and the results of the radon-222 flux testing. Each such report shall include all of the information specified by §61.203(b).

### § 61.204 Distribution and use of phosphogypsum for outdoor agricultural purposes.

Phosphogypsum may be lawfully removed from a stack and distributed in commerce for use in outdoor agricultural research and development and agricultural field use if each of the following requirements is satisfied:

- (a) The owner or operator of the stack from which the phosphogypsum is removed shall determine annually the average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as provided by § 61.207.
- (b) The average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as determined pursuant to § 61.207, shall not exceed 10 pCi/g (4500 pCi/lb).
- (c) All phosphogypsum distributed in commerce for use pursuant to this section by the owner or operator of a phosphogypsum stack shall be accompanied by a certification document which conforms to the requirements of § 61.208(a).
- (d) Each distributor, retailer, or reseller who distributes phosphogypsum for use pursuant to this section shall prepare certification documents which conform to the requirements of § 61.208(b).

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(e) Use of phosphogypsum for indoor research and development in a laboratory must comply with § 61.205.

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### **§ 61.205 Distribution and use of phosphogypsum for indoor research and development.**

- (a) Phosphogypsum may be lawfully removed from a stack and distributed in commerce for use in indoor research and development activities, provided that it is accompanied at all times by certification documents which conform to the requirements of § 61.208. In addition, before distributing phosphogypsum to any person for use in indoor research and development activities, the owner or operator of a phosphogypsum stack shall obtain from that person written confirmation that the research facility will comply with all of the limitations set forth in paragraph (b) of this section.
- (b) Any person who purchases and uses phosphogypsum for indoor research and development purposes shall comply with all of the following limitations. Any use of phosphogypsum for indoor research and development purposes not consistent with the limitations set forth in this section shall be construed as unauthorized distribution of phosphogypsum.
  - (1) Each quantity of phosphogypsum purchased by a facility for a particular research and development activity shall be accompanied by certification documents which conform to the requirements of § 61.208.
  - (2) No facility shall purchase or possess more than 3182 kg (7,000 lb) of phosphogypsum for a particular indoor research and development activity. The total quantity of all phosphogypsum at a facility, as determined by summing the individual quantities purchased or possessed for each individual research and development activity conducted by that facility, may exceed 3182 kg (7,000 lb), provided that no single room in which research and development activities are conducted shall contain more than 3182 kg (7,000 lb).
  - (3) Containers of phosphogypsum used in indoor research and development activities shall be labeled with the following warning: Caution: Phosphogypsum Contains Elevated Levels of Naturally Occurring Radioactivity.
  - (4) For each indoor research and development activity in which phosphogypsum is used, the facility shall maintain records which conform to the requirements of § 61.209(c).
  - (5) Indoor research and development activities must be performed in a controlled laboratory setting which the general public cannot enter except on an infrequent basis for tours of the facility. Uses of phosphogypsum for outdoor agricultural research and development and agricultural field use must comply with § 61.204.
- (c) Phosphogypsum not intended for distribution in commerce may be lawfully removed from a stack by an owner or operator to perform laboratory analyses required by this subpart or any other quality control or quality assurance analyses associated with wet acid phosphorus production.

### **§61.206 Distribution and use of phosphogypsum for other purposes.**

- (a) Phosphogypsum may not be lawfully removed from a stack and distributed or used for any purpose not expressly specified in 61.204 or 61.205 without prior EPA approval.
- (b) A request that EPA approve distribution and/or use of phosphogypsum for any other purpose must be submitted in writing and must contain the following information:
  - (1) The name and address of the person(s) making the request.
  - (2) A description of the proposed use, including any handling and processing that the phosphogypsum will undergo.
  - (3) The location of each facility, including suite and/or building number, street, city, county, state, and zip code, where any use, handling, or processing of the phosphogypsum will take place.
  - (4) The mailing address of each facility where any use, handling, or processing of the phosphogypsum will take place, if different from paragraph (b)(3) of this section.
  - (5) The quantity of phosphogypsum to be used by each facility.

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- (6) The average concentration of radium-226 in the phosphogypsum to be used.
  - (7) A description of any measures which will be taken to prevent the uncontrolled release of phosphogypsum into the environment.
  - (8) An estimate of the maximum individual risk, risk distribution, and incidence associated with the proposed use, including the ultimate disposition of the phosphogypsum or any product in which the phosphogypsum is incorporated.
  - (9) A description of the intended disposition of any unused phosphogypsum.
  - (10) Each request shall be signed and dated by a corporate officer or public official in charge of the facility.
- (c) The Assistant Administrator for Air and Radiation may decide to grant a request that EPA approve distribution and/or use of phosphogypsum if he determines that the proposed distribution and/or use is at least as protective of public health, in both the short term and the long term, as disposal of phosphogypsum in a stack or a mine.
- (d) If the Assistant Administrator for Air and Radiation decides to grant a request that EPA approve distribution and/or use of phosphogypsum for a specified purpose, each of the following requirements shall be satisfied:
- (1) The owner or operator of the stack from which the phosphogypsum is removed shall determine annually the average radium-226 concentration at the location in the stack from which the phosphogypsum will be removed, as provided by 61.207.
  - (2) All phosphogypsum distributed in commerce by the owner or operator of a phosphogypsum stack, or by a distributor, retailer, or reseller, or purchased by the end-user, shall be accompanied at all times by certification documents which conform to the requirements 61.208.
  - (3) The end-user of the phosphogypsum shall maintain records which conform to the requirements of 61.209(c).
- (e) If the Assistant Administrator for Air and Radiation decides to grant a request that EPA approve distribution and/or use of phosphogypsum for a specified purpose, the Assistant Administrator may decide to impose additional terms or conditions governing such distribution or use. In appropriate circumstances, the Assistant Administrator may also decide to waive or modify the recordkeeping requirements established by 61.209(c).

### § 61.207 Radium-226 sampling and measurement procedures.

- (a) Before removing phosphogypsum from a stack for distribution in commerce pursuant to § 61.204, or § 61.206, the owner or operator of a phosphogypsum stack shall measure the average radium-226 concentration at the location in the stack from which phosphogypsum will be removed. Measurements shall be performed for each such location prior to the initial distribution in commerce of phosphogypsum removed from that location and at least once during each calendar year while distribution of phosphogypsum removed from the location continues.
- (1) A minimum of 30 phosphogypsum samples shall be taken at regularly spaced intervals across the surface of the location on the stack from which the phosphogypsum will be removed. Let  $n_1$  represent the number of samples taken.
  - (2) Measure the radium-226 concentration of each of the  $n_1$  samples in accordance with the analytical procedures described in 40 CFR part 61, appendix B, Method 114.
  - (3) Calculate the mean,  $\bar{x}_1$ , and the standard deviation,  $s_1$ , of the  $n_1$  radium-226 concentrations:

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$$\bar{x}_1 = \frac{\sum_{i=1}^{n_1} x_i}{n_1},$$

$$s_1 = \sqrt{\frac{\sum_{i=1}^{n_1} (x_i - \bar{x}_1)^2}{n_1 - 1}},$$

Where  $x_1$  and  $s_1$  are expressed in pCi/g.

- (4) Calculate the 95th percentile for the distribution,  $x^*$ , using the following equation:

$$\bar{x}^* = \bar{x}_1 + 1.64 \left( \frac{s_1}{\sqrt{n_1}} \right),$$

Where  $x^*$  is expressed in pCi/g.

- (5) If the purpose for removing phosphogypsum from a stack is for distribution to commerce pursuant to § 61.206, the owner or operator of a phosphogypsum stack shall report the mean, standard deviation, 95th percentile and sample size. If the purpose for removing phosphogypsum from a stack is for distribution to commerce pursuant to § 61.204, the additional sampling procedures set forth in paragraphs (b) and (c) of this section shall apply.
- (b) Based on the values for  $x_1$  and  $x^*$  calculated in paragraphs paragraphs (a)(3) and (4) of this section, determine which of the following conditions will be met:
- (1) If  $x_1 < 10$  pCi/g and  $x^* \leq 10$  pCi/g; phosphogypsum may be removed from this area of the stack for distribution in commerce pursuant to § 61.204.
  - (2) If  $x_1 < 10$  pCi/g and  $x^* > 10$  pCi/g, the owner or operator may elect to follow the procedures for further sampling set forth in paragraph (c) of this section:
  - (3) If  $x_1 \geq 10$  pCi/g; phosphogypsum shall not be removed from this area of the stack for distribution in commerce pursuant to § 61.204.
- (c) If the owner or operator elects to conduct further sampling to determine if phosphogypsum can be removed from this area of the stack, the following procedure shall apply. The objective of the following procedure is to demonstrate, with a 95% probability, that the phosphogypsum from this area of the stack has a radium-226 concentration no greater than 10 pCi/g. The procedure is iterative, the sample size may have to be increased more than one time; otherwise the phosphogypsum cannot be removed from this area of the stack for distribution to commerce pursuant to § 61.204.
- (1)
    - (i) Solve the following equation for the total number of samples required:

$$n_2 = \left( \frac{1.64s_1}{10 - \bar{x}_1} \right)^2.$$

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- (ii) The sample size  $n_2$  shall be rounded upwards to the next whole number. The number of additional samples needed is  $n_A = n_2 - n_1$ .
- (2) Obtain the necessary number of additional samples,  $n_A$ , which shall also be taken at regularly spaced intervals across the surface of the location on the stack from which phosphogypsum will be removed.
- (3) Measure the radium-226 concentration of each of the  $n_A$  additional samples in accordance with the analytical procedures described in 40 CFR part 61, appendix B, Method 114.
- (4) Recalculate the mean and standard deviation of the entire set of  $n_2$  radium-226 concentrations by joining this set of  $n_A$  concentrations with the  $n_1$  concentrations previously measured. Use the formulas in paragraph (a)(3) of this section, substituting the entire set of  $n_2$  samples in place of the  $n_1$  samples called for in paragraph (a)(3) of this section, thereby determining the mean,  $\bar{x}_2$ , and standard deviation,  $s_2$ , for the entire set of  $n_2$  concentrations.
- (5) Repeat the procedure described in paragraph (a)(4) of this section, substituting the recalculated mean,  $\bar{x}_2$ , for  $\bar{x}_1$ , the recalculated standard deviation,  $s_2$ , for  $s_1$ , and total sample size,  $n_2$ , for  $n_1$ .
- (6) Repeat the procedure described in paragraph (b) of this section, substituting the recalculated mean,  $\bar{x}_2$  for  $\bar{x}_1$ .

### § 61.208 Certification requirements.

(a)

- (1) The owner or operator of a stack from which phosphogypsum will be removed and distributed in commerce pursuant to § 61.204, § 61.205, or § 61.206 shall prepare a certification document for each quantity of phosphogypsum which is distributed in commerce which includes:
  - (i) The name and address of the owner or operator;
  - (ii) The name and address of the purchaser or recipient of the phosphogypsum;
  - (iii) The quantity of phosphogypsum, in kilograms or pounds sold or transferred;
  - (iv) The date of sale or transfer;
  - (v) A description of the intended end-use for the phosphogypsum;
  - (vi) The average radium-226 concentration, in pCi/g (pCi/lb), of the phosphogypsum, as determined pursuant to § 61.207; and
  - (vii) The signature of the person who prepared the certification.
- (2) The owner or operator shall retain the certification document for five years from the date of sale or transfer, and shall produce the document for inspection upon request by the Administrator, or his authorized representative. The owner or operator shall also provide a copy of the certification document to the purchaser or recipient.

(b)

- (1) Each distributor, retailer, or reseller who purchases or receives phosphogypsum for subsequent resale or transfer shall prepare a certification document for each quantity of phosphogypsum which is resold or transferred which includes:
  - (i) The name and address of the distributor, retailer, or reseller;

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- (ii) The name and address of the purchaser or recipient of the phosphogypsum;
  - (iii) The quantity (in pounds) of phosphogypsum resold or transferred;
  - (iv) The date of resale or transfer;
  - (v) A description of the intended end-use for the phosphogypsum;
  - (vi) A copy of each certification document which accompanied the phosphogypsum at the time it was purchased or received by the distributor, retailer, or reseller; and
  - (vii) The signature of the person who prepared the certification.
- (2) The distributor, retailer, or reseller shall retain the certification document for five years from the date of resale or transfer, and shall produce the document for inspection upon request by the Administrator, or his authorized representative. For every resale or transfer of phosphogypsum to a person other than an agricultural end-user, the distributor, retailer, or reseller shall also provide a copy of the certification document to the purchaser or transferee.

### §61.209 Required records.

- (a) Each owner or operator of a phosphogypsum stack must maintain records for each stack documenting the procedure used to verify compliance with the flux standard in 61.202, including all measurements, calculations, and analytical methods on which input parameters were based. The required documentation shall be sufficient to allow an independent auditor to verify the correctness of the determination made concerning compliance of the stack with flux standard.
- (b) Each owner or operator of a phosphogypsum stack must maintain records documenting the procedure used to determine average radium-226 concentration pursuant to §61.207, including all measurements, calculations, and analytical methods on which input parameters were based. The required documentation shall be sufficient to allow an independent auditor to verify the accuracy of the radium-226 concentration.
- (c) Each facility which uses phosphogypsum pursuant to §61.205 or §61.206 shall prepare records which include the following information:
  - (1) The name and address of the person in charge of the activity involving use of phosphogypsum.
  - (2) A description of each use of phosphogypsum, including the handling and processing that the phosphogypsum underwent.
  - (3) The location of each site where each use of phosphogypsum occurred, including the suite and/or building number, street, city, county, state, and zip code.
  - (4) The mailing address of each facility using phosphogypsum, if different from paragraph (c)(3) of this section.
  - (5) The date of each use of phosphogypsum.
  - (6) The quantity of phosphogypsum used.
  - (7) The certified average concentration of radium-226 for the phosphogypsum which was used.
  - (8) A description of all measures taken to prevent the uncontrolled release of phosphogypsum into the environment.
  - (9) A description of the disposition of any unused phosphogypsum.

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- (d) These records shall be retained by the facility for at least five years from the date of use of the phosphogypsum and shall be produced for inspection upon request by the Administrator, or his authorized representative.

**§61.210 Exemption from the reporting and testing requirements of 40 CFR 61.10.**

All facilities designated under this subpart are exempt from the reporting requirements of 40 CFR 61.10.

Source: 57 FR 23317, June 3, 1992, unless otherwise noted. CLP 6/9/97

Updated 2/24/99 with FR revision dated 2/3/99. – CLP

Updated 10/5/99 with FR revision dated 10/1/99 - CLP

### Federal Regulations Adopted by Reference

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

*Federal Revision Date: November 12, 2010*

*Standardized Conditions Revision Date: May 23, 2011*

### 40 CFR Part 63, Subpart A – General Provisions

**Source:** 59 FR 12430, Mar. 16, 1994, unless otherwise noted.

#### § 63.1 Applicability.

(a) *General.*

- (1) Terms used throughout this part are defined in §63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in §63.2.
- (2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.
- (3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.
- (4)
  - (i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.
  - (ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.
  - (iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.
- (5) [Reserved]
- (6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.
- (7)–(9) [Reserved]
- (10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.
- (11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take

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place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

- (12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in §63.9(i).

(b) *Initial applicability determination for this part.*

- (1) The provisions of this part apply to the owner or operator of any stationary source that—
- (i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and
  - (ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.
- (2) [Reserved]
- (3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in §63.10(b)(3).

(c) *Applicability of this part after a relevant standard has been set under this part.*

- (1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.
- (2) Except as provided in §63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether—
- (i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);
  - (ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or
  - (iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.
- (3)–(4) [Reserved]
- (5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(d) [Reserved]

- (e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative

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determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16595, Apr. 5, 2002]

### § 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

*Act* means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101-549, 104 Stat. 2399).

*Actual emissions* is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

*Administrator* means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

*Affected source*, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

*Alternative emission limitation* means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

*Alternative emission standard* means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

*Alternative test method* means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

*Approved permit program* means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

*Area source* means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

*Commenced* means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

*Compliance date* means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

*Compliance schedule* means:

- (1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

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- (2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or
- (3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

*Construction* means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

*Continuous emission monitoring system (CEMS)* means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

*Continuous monitoring system (CMS)* is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

*Continuous opacity monitoring system (COMS)* means a continuous monitoring system that measures the opacity of emissions.

*Continuous parameter monitoring system* means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

*Effective date* means:

- (1) With regard to an emission standard established under this part, the date of promulgation in the Federal Register of such standard; or
- (2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

*Emission standard* means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

*Emissions averaging* is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

*EPA* means the United States Environmental Protection Agency.

*Equivalent emission limitation* means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

*Excess emissions and continuous monitoring system performance report* is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

*Existing source* means any affected source that is not a new source.

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*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

- (1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;
- (2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;
- (3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;
- (4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);
- (5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;
- (6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:
  - (i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;
  - (ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;
  - (iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";
  - (iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and
  - (v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.
- (7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and
- (8) Individual consent agreements that the EPA has legal authority to create.

*Fixed capital cost* means the capital needed to provide all the depreciable components of an existing source.

*Force majeure* means, for purposes of §63.7, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

*Fugitive emissions* means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

*Hazardous air pollutant* means any air pollutant listed in or pursuant to section 112(b) of the Act.

*Issuance* of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

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*Major source* means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Monitoring* means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

- (1) Indicator(s) of performance—the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.
- (2) Measurement techniques—the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.
- (3) Monitoring frequency—the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.
- (4) Averaging time—the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

*New affected source* means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of “new affected source,” and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term “new affected source,” which will be the same as the “affected source” unless a different collection is warranted based on consideration of factors including:

- (1) Emission reduction impacts of controlling individual sources versus groups of sources;
- (2) Cost effectiveness of controlling individual equipment;
- (3) Flexibility to accommodate common control strategies;
- (4) Cost/benefits of emissions averaging;
- (5) Incentives for pollution prevention;
- (6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);
- (7) Feasibility and cost of monitoring; and
- (8) Other relevant factors.

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*New source* means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

*One-hour period*, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

*Owner or operator* means any person who owns, leases, operates, controls, or supervises a stationary source.

*Performance audit* means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

*Performance evaluation* means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

*Performance test* means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

*Permit modification* means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

*Permit program* means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

*Permit revision* means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

*Permitting authority* means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

*Pollution Prevention* means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101–13109). The definition is as follows:

- (1) *Source reduction* is any practice that:
  - (i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and
  - (ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.
- (2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.
- (3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

*Potential to emit* means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

*Reconstruction*, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

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- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
- (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

*Regulation promulgation schedule* means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the Federal Register .

*Relevant standard* means:

- (1) An emission standard;
- (2) An alternative emission standard;
- (3) An alternative emission limitation; or
- (4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by §63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

*Responsible official* means one of the following:

- (1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:
  - (i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
  - (ii) The delegation of authority to such representative is approved in advance by the Administrator.
- (2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).
- (4) For affected sources (as defined in this part) applying for or subject to a title V permit: “responsible official” shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

*Run* means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

*Shutdown* means the cessation of operation of an affected source or portion of an affected source for any purpose.

*Six-minute period* means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

*Source at a Performance Track member facility* means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at [www.epa.gov/PerformanceTrack](http://www.epa.gov/PerformanceTrack) ) and is still a member of the Program. The Performance Track Program is a voluntary program that encourages continuous environmental improvement through the use of environmental management systems, local community outreach, and measurable results.

*Standard conditions* means a temperature of 293 K (68 °F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

*Startup* means the setting in operation of an affected source or portion of an affected source for any purpose.

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*State* means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

*Stationary source* means any building, structure, facility, or installation which emits or may emit any air pollutant.

*Test method* means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

*Title V permit* means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

*Visible emission* means the observation of an emission of opacity or optical density above the threshold of vision.

*Working day* means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16596, Apr. 5, 2002; 68 FR 32600, May 30, 2003; 69 FR 21752, Apr. 22, 2004; 72 FR 27443, May 16, 2007]

### § 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) *System International (SI) units of measure:*

A = ampere

g = gram

Hz = hertz

J = joule

°K = degree Kelvin

kg = kilogram

l = liter

m = meter

m<sup>3</sup> = cubic meter

mg = milligram = 10<sup>-3</sup> gram

ml = milliliter = 10<sup>-3</sup> liter

mm = millimeter = 10<sup>-3</sup> meter

Mg = megagram = 10<sup>6</sup> gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10<sup>-9</sup> gram

nm = nanometer = 10<sup>-9</sup> meter

Pa = pascal

s = second

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V = volt

W = watt

$\Omega$  = ohm

$\mu\text{g}$  = microgram =  $10^{-6}$  gram

$\mu\text{l}$  = microliter =  $10^{-6}$  liter

(b) *Other units of measure:*

Btu = British thermal unit

$^{\circ}\text{C}$  = degree Celsius (centigrade)

cal = calorie

cfm = cubic feet per minute

cc = cubic centimeter

cu ft = cubic feet

d = day

dcf = dry cubic feet

dcm = dry cubic meter

dscf = dry cubic feet at standard conditions

dscm = dry cubic meter at standard conditions

eq = equivalent

$^{\circ}\text{F}$  degree Fahrenheit

ft = feet

$\text{ft}^2$  = square feet

$\text{ft}^3$  = cubic feet

gal = gallon

gr = grain

g-eq = gram equivalent

g-mole = gram mole

hr = hour

in. = inch

in.  $\text{H}_2\text{O}$  = inches of water

K = 1,000

kcal = kilocalorie

lb = pound

lpm = liter per minute

meq = milliequivalent

min = minute

MW = molecular weight

oz = ounces

ppb = parts per billion  
ppbw = parts per billion by weight  
ppbv = parts per billion by volume  
ppm = parts per million  
ppmw = parts per million by weight  
ppmv = parts per million by volume  
psia = pounds per square inch absolute  
psig = pounds per square inch gage  
°R = degree Rankine  
scf = cubic feet at standard conditions  
scfh = cubic feet at standard conditions per hour  
scm = cubic meter at standard conditions  
scmm = cubic meter at standard conditions per minute  
sec = second  
sq ft = square feet  
std = at standard conditions  
v/v = volume per volume  
yd<sup>2</sup> = square yards  
yr = year  
(c) *Miscellaneous:*  
act = actual  
avg = average  
I.D. = inside diameter  
M = molar  
N = normal  
O.D. = outside diameter  
% = percent

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

**§ 63.4 Prohibited activities and circumvention.**

(a) *Prohibited activities.*

- (1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.
- (2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.
- (3)–(5) [Reserved]

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- (b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to—
- (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;
  - (2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and
- (c) *Fragmentation.* Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

### § 63.5 Preconstruction review and notification requirements.

- (a) *Applicability.*
- (1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.
  - (2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.
- (b) *Requirements for existing, newly constructed, and reconstructed sources.*
- (1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.
  - (2) [Reserved]
  - (3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:
    - (i) Construct a new affected source that is major-emitting and subject to such standard;
    - (ii) Reconstruct an affected source that is major-emitting and subject to such standard; or
    - (iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.
  - (4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in §63.9(b).
  - (5) [Reserved]
  - (6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

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- (c) [Reserved]
- (d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(i)(1) of the Act.
- (1) *General application requirements.*
- (i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of §63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.
- (ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:
- (A) The applicant's name and address;
- (B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in §63.2 or in the relevant standard;
- (C) The address (i.e., physical location) or proposed address of the source;
- (D) An identification of the relevant standard that is the basis of the application;
- (E) The expected date of the beginning of actual construction or reconstruction;
- (F) The expected completion date of the construction or reconstruction;
- (G) [Reserved]
- (H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and
- (I) [Reserved]
- (J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.
- (iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in §63.9(h) (see §63.9(h)(5)).
- (2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.
- (3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section—

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- (i) A brief description of the affected source and the components that are to be replaced;
  - (ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;
  - (iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;
  - (iv) The estimated life of the affected source after the replacements; and
  - (v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.
  - (vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.
- (4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.
- (e) *Approval of construction or reconstruction.*
- (1)
    - (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.
    - (ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:
      - (A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;
      - (B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;
      - (C) The extent to which the components being replaced cause or contribute to the emissions from the source; and
      - (D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.
  - (2)
    - (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.
    - (ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

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- (3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with—
  - (i) Notice of the information and findings on which the intended denial is based; and
  - (ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.
- (4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.
- (5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall—
  - (i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or
  - (ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.
- (f) *Approval of construction or reconstruction based on prior State preconstruction review.*
  - (1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:
    - (i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.
    - (ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.
  - (2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also §63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

### **§ 63.6 Compliance with standards and maintenance requirements.**

- (a) *Applicability.*
  - (1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with §63.1(a)(4) unless—
    - (i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or
    - (ii) The Administrator has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.
  - (2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit

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hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) *Compliance dates for new and reconstructed sources.*

- (1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.
- (2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.
- (3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:
  - (i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are "more stringent" must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and
  - (ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.
- (4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.
- (5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with §63.9(d)
- (6) [Reserved]
- (7) When an area source becomes a major source by the addition of equipment or operations that meet the definition of new affected source in the relevant standard, the portion of the existing facility that is a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

(c) *Compliance dates for existing sources.*

- (1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.
- (2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii) of this section, whichever is later.
- (3)–(4) [Reserved]
- (5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source shall be subject to relevant standards for existing sources. Such sources must comply by the date specified in the standards for

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existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) *Operation and maintenance requirements.*

(1)

- (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.
- (ii) Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.
- (iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, shutdown, and malfunction plan.*

- (i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to—
  - (A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;
  - (B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and
  - (C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).
- (ii) [Reserved]
- (iii) When actions taken by the owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which

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demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the owner or operator must keep records of these events as specified in paragraph 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in §63.10(d)(5).

- (iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with §63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).
- (v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.
- (vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.
- (vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:
  - (A) Does not address a startup, shutdown, or malfunction event that has occurred;
  - (B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;
  - (C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
  - (D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in §63.2.

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- (viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by §63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.
- (ix) The title V permit for an affected source must require that the owner or operator develop a startup, shutdown, and malfunction plan which conforms to the provisions of this part, but may do so by citing to the relevant subpart or subparagraphs of paragraph (e) of this section. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter and the elements of the startup, shutdown, and malfunction plan shall not be considered an applicable requirement as defined in §70.2 and §71.2 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.
- (f) *Compliance with nonopacity emission standards* —
- (1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.
- (2) *Methods for determining compliance.*
- (i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in §63.7, unless otherwise specified in an applicable subpart of this part.
- (ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in §63.6(e) and applicable subparts of this part.
- (iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if—
- (A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;
- (B) The performance test was conducted under representative operating conditions for the source;
- (C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in §63.7(e) of this subpart; and
- (D) The performance test was appropriately quality-assured, as specified in §63.7(c).

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- (iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.
- (v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.
- (3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.
- (g) *Use of an alternative nonopacity emission standard.*
  - (1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the Federal Register a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any Federal Register notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.
  - (2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with §63.7 and §63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in §63.7 and §63.8.
  - (3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.
- (h) *Compliance with opacity and visible emission standards —*
  - (1) *Applicability.* The opacity and visible emission standards set forth in this part must apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.
  - (2) *Methods for determining compliance.*
    - (i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.
    - (ii) [Reserved]

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- (iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if—
- (A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;
  - (B) The opacity or visible emission test was conducted under representative operating conditions for the source;
  - (C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in §63.7(e); and
  - (D) The opacity or visible emission test was appropriately quality-assured, as specified in §63.7(c) of this section.
- (3) [Reserved]
- (4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with §63.9(f), if such observations are required for the source by a relevant standard.
- (5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:
- (i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in §63.7 unless one of the following conditions applies:
    - (A) If no performance test under §63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under §63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or
    - (B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under §63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.
  - (ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).
  - (iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of §63.10(d).
  - (iv) [Reserved]
  - (v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.
- (6) *Availability of records.* The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

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- (7) *Use of a continuous opacity monitoring system.*
- (i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under §63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of §63.10(e)(4).
  - (ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under §63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under §63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under §63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under §63.7(b) of the date the subsequent performance test is scheduled to begin.
  - (iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under §63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.
  - (iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of §63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in §63.8(c) and §63.8(d), and that the resulting data have not been altered in any way.
  - (v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in §63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.
- (8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by §63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.
- (9) *Adjustment to an opacity emission standard.*
- (i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under §63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.
  - (ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that—
    - (A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;
    - (B) The performance tests were performed under the conditions established by the Administrator; and
    - (C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.
  - (iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet

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the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the Federal Register.

- (iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.
- (i) *Extension of compliance with emission standards.*
- (1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.
- (2) *Extension of compliance for early reductions and other reductions* —
  - (i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.
  - (ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.
- (3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).
- (4)
  - (i)
    - (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.
    - (B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

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- (C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.
- (ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.
- (5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.
- (6)
- (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:
- (A) A description of the controls to be installed to comply with the standard;
- (B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:
- ( 1 ) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and
- ( 2 ) The date by which final compliance is to be achieved.
- ( 3 ) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and
- ( 4 ) The date by which final compliance is to be achieved;
- (C)–(D)
- (ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.
- (7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).
- (8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.
- (9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

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- (10) The extension will be in writing and will—
- (i) Identify each affected source covered by the extension;
  - (ii) Specify the termination date of the extension;
  - (iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;
  - (iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and
  - (v)
    - (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or
    - (B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.
- (11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.
- (12)
- (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.
  - (ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.
  - (iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with—
    - (A) Notice of the information and findings on which the intended denial is based; and
    - (B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.
  - (iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

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- (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.
  - (ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.
  - (iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with—
    - (A) Notice of the information and findings on which the intended denial is based; and
    - (B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.
  - (iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.
- (14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:
- (i) Notice of the reason for termination; and
  - (ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.
  - (iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.
- (15) [Reserved]
- (16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.
- (j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16599, Apr. 5, 2002; 68 FR 32600, May 30, 2003; 71 FR 20454, Apr. 20, 2006]

### § 63.7 Performance testing requirements.

(a) *Applicability and performance test dates.*

- (1) The applicability of this section is set out in §63.1(a)(4).

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- (2) Except as provided in paragraph (a)(4) of this section, if required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.
- (i)–(viii) [Reserved]
- (ix) Except as provided in paragraph (a)(4) of this section, when an emission standard promulgated under this part is more stringent than the standard proposed (see §63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.
- (3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.
- (4) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure:
- (i) The owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline specified in paragraph (a)(2) or (a)(3) of this section, or elsewhere in this part, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.
- (ii) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.
- (iii) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.
- (iv) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(4)(i), (a)(4)(ii), and (a)(4)(iii) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) *Notification of performance test.*

- (1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.
- (2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) *Quality assurance program.*

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- (1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.
- (2)
  - (i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.
  - (ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.
  - (iii) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.
- (A) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3C of Appendix A–3 of Part 60, Methods 6C, 7E, 9, and 10 of Appendix A–4 of Part 60, Method 18 of Appendix A–6 of Part 60, Methods 20, 22, and 25A of Appendix A–7 of Part 60, and Methods 303, 318, 320, and 321 of Appendix A of Part 63. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. “Commercially available” means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of

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each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and then report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

- (B) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:
- ( 1 ) Preparing the sample;
  - ( 2 ) Confirming the true concentration of the sample;
  - ( 3 ) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range;
  - ( 4 ) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
  - ( 5 ) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
  - ( 6 ) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
  - ( 7 ) Reporting the results from each audit sample in a timely manner to the compliance authority and to the source owner, operator, or representative by the AASP. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.
  - ( 8 ) Evaluating the acceptance limits of samples at least once every two years to determine in consultation with the voluntary consensus standard body if they should be changed.
  - ( 9 ) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

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- (C) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:
- ( 1 ) Checking audit samples to confirm their true value as reported by the AASP.
  - ( 2 ) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years.
  - ( 3 ) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.
- (D) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget *Circular A-119* . A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at [http://standards.gov/standards\\_gov/a119.cfm](http://standards.gov/standards_gov/a119.cfm) . The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (c)(2)(iii)(B) through (C) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc> .
- (iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.
- (v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.
- (3) *Approval of site-specific test plan.*
- (i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with—
    - (A) Notice of the information and findings on which the intended disapproval is based; and
    - (B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.
  - (ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:
    - (A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);
    - (B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is

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authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

- (iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall—
  - (A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or
  - (B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.
- (d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:
  - (1) Sampling ports adequate for test methods applicable to such source. This includes:
    - (i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and
    - (ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;
  - (2) Safe sampling platform(s);
  - (3) Safe access to sampling platform(s);
  - (4) Utilities for sampling and testing equipment; and
  - (5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.
- (e) *Conduct of performance tests.*
  - (1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under §63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.
  - (2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator—
    - (i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in §63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or
    - (ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in §63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or
    - (iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or
    - (iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.
  - (3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in

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the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that—

- (i) A sample is accidentally lost after the testing team leaves the site; or
  - (ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
  - (iii) Extreme meteorological conditions occur; or
  - (iv) Other circumstances occur that are beyond the owner or operator's control.
- (4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.
- (f) *Use of an alternative test method* —
- (1) *General.* Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.
  - (2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator—
    - (i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;
    - (ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and
    - (iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.
  - (3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.
  - (4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.
  - (5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under §63.7(f).
  - (6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.
- (g) *Data analysis, recordkeeping, and reporting.*

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- (1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is “completed” when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see §63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under §63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.
  - (2) [Reserved]
  - (3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.
- (h) *Waiver of performance tests.*
- (1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.
  - (2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.
  - (3) *Request to waive a performance test.*
    - (i) If a request is made for an extension of compliance under §63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.
    - (ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under §63.6(i), §63.9(h), and §63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.
    - (iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.
  - (4) *Approval of request to waive performance test.* The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she—
    - (i) Approves or denies an extension of compliance under §63.6(i)(8); or
    - (ii) Approves or disapproves a site-specific test plan under §63.7(c)(3); or
    - (iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or
    - (iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.
  - (5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

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[59 FR 12430, Mar. 16, 1994, as amended at 65 FR 62215, Oct. 17, 2000; 67 FR 16602, Apr. 5, 2002; 72 FR 27443, May 16, 2007; 75 FR 55655, Sept. 13, 2010]

### § 63.8 Monitoring requirements.

#### (a) *Applicability.*

- (1) The applicability of this section is set out in §63.1(a)(4).
- (2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.
- (3) [Reserved]
- (4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in §63.11.

#### (b) *Conduct of monitoring.*

- (1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator—
  - (i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see §63.90(a) for definition); or
  - (ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see §63.90(a) for definition).
  - (iii) Owners or operators with flares subject to §63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.
- (2)
  - (i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.
  - (ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is—
    - (A) Approved by the Administrator; or
    - (B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).
- (3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

#### (c) *Operation and maintenance of continuous monitoring systems.*

- (1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.
  - (i) The owner or operator of an affected source must maintain and operate each CMS as specified in §63.6(e)(1).
  - (ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

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- (iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in §63.6(e)(3).
- (2)
- (i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).
  - (ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.
- (3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under §63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.
- (4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
- (i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
  - (ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
- (5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.
- (6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.
- (7)
- (i) A CMS is out of control if—
    - (A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or
    - (B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or
    - (C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

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- (ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.
  - (8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in §63.10(e)(3).
- (d) *Quality control program.*
- (1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.
  - (2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:
    - (i) Initial and any subsequent calibration of the CMS;
    - (ii) Determination and adjustment of the calibration drift of the CMS;
    - (iii) Preventive maintenance of the CMS, including spare parts inventory;
    - (iv) Data recording, calculations, and reporting;
    - (v) Accuracy audit procedures, including sampling and analysis methods; and
    - (vi) Program of corrective action for a malfunctioning CMS.
  - (3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.
- (e) *Performance evaluation of continuous monitoring systems —*
- (1) *General.* When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.
  - (2) *Notification of performance evaluation.* The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under §63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.
  - (3)
    - (i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall

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- include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.
- (ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
  - (iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).
  - (iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.
  - (v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in §63.7(c)(3), the following conditions shall apply:
    - (A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);
    - (B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.
  - (vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall—
    - (A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or
    - (B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.
- (4) *Conduct of performance evaluation and performance evaluation dates.* The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under §63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under §63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under §63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under §63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in §63.7(a), or as otherwise specified in the relevant standard.
- (5) *Reporting performance evaluation results.*
- (i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under §63.7 or within 60 days of

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completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

- (ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under §63.7 is conducted.

(f) *Use of an alternative monitoring method* —

- (1) *General.* Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in §63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.
- (2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:
  - (i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;
  - (ii) Alternative monitoring requirements when the affected source is infrequently operated;
  - (iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;
  - (iv) Alternate locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;
  - (v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;
  - (vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;
  - (vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;
  - (viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or
  - (ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.
- (3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.
- (4)
  - (i) *Request to use alternative monitoring procedure.* An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under §63.7(f).
  - (ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in §63.2 and a performance evaluation test plan, if

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- required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.
- (iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.
  - (iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.
- (5) *Approval of request to use alternative monitoring procedure.*
- (i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with—
    - (A) Notice of the information and findings on which the intended disapproval is based; and
    - (B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.
  - (ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.
  - (iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by §63.8(f).
- (6) *Alternative to the relative accuracy test.* An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:
- (i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in §63.7, or other tests performed following the criteria in §63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.
  - (ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.
  - (iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from

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a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(g) *Reduction of monitoring data.*

- (1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.
- (2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in §63.2.
- (3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant).
- (4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).
- (5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of §63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16603, Apr. 5, 2002; 71 FR 20455, Apr. 20, 2006]

### § 63.9 Notification requirements.

(a) *Applicability and general information.*

- (1) The applicability of this section is set out in §63.1(a)(4).
- (2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.
- (3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.
- (4)
  - (i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit

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notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in §63.13).

- (ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) *Initial notifications.*

(1)

- (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.
- (ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.
- (iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under §63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

- (i) The name and address of the owner or operator;
- (ii) The address (i.e., physical location) of the affected source;
- (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and
- (v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under §63.5(d) must provide the following information in writing to the Administrator:

- (i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in §63.5(d)(1)(i); and

(ii)–(iv) [Reserved]

- (v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under §63.5(d) must provide the following information in writing to the Administrator:

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- (i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and
  - (ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.
  - (iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in §63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in §63.5(d)(1)(i).
- (c) *Request for extension of compliance.* If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with §63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in §63.6(i)(4) through §63.6(i)(6).
- (d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in §63.6(b)(3) and §63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.
- (e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under §63.7(c), if requested by the Administrator, and to have an observer present during the test.
- (f) *Notification of opacity and visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in §63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under §63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.
- (g) *Additional notification requirements for sources with continuous monitoring systems.* The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:
- (1) A notification of the date the CMS performance evaluation under §63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under §63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under §63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;
  - (2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by §63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by §63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and
  - (3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by §63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.
- (h) *Notification of compliance status.*
- (1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.
  - (2)
    - (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the

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Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list—

- (A) The methods that were used to determine compliance;
  - (B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - (C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;
  - (D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;
  - (E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);
  - (F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and
  - (G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.
- (ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.
- (3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.
- (4) [Reserved]
- (5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in §63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of §63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.
- (6) Advice on a notification of compliance status may be obtained from the Administrator.
- (i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.*
- (1)
- (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

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- (ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.
- (2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.
- (3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.
- (4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.
- (j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 2003]

### § 63.10 Recordkeeping and reporting requirements.

#### (a) *Applicability and general information.*

- (1) The applicability of this section is set out in §63.1(a)(4).
- (2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.
- (3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.
- (4)
  - (i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in §63.13).
  - (ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion. *{Note: Region 4 EPA policy requires only a copy of the transmittal letter that is used to transmit each report to the proper District or Local office, in lieu of the actual report itself, unless a source is required to do so by other means.}*
- (5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence

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applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in §63.9(i).

- (6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in §63.9(i).
- (7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in §63.9(i).

(b) *General record keeping requirements.*

- (1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
- (2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of—
  - (i) The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;
  - (ii) The occurrence and duration of each malfunction of operation ( *i.e.* , process equipment) or the required air pollution control and monitoring equipment;
  - (iii) All required maintenance performed on the air pollution control and monitoring equipment;
  - (iv)
    - (A) Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)); or
    - (B) Actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3));
  - (v) All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);
  - (vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

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- (vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
    - (A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.
    - (B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.
    - (C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.
  - (viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;
  - (ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
  - (x) All CMS calibration checks;
  - (xi) All adjustments and maintenance performed on CMS;
  - (xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;
  - (xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under §63.8(f)(6); and
  - (xiv) All documentation supporting initial notifications and notifications of compliance status under §63.9.
- (3) *Recordkeeping requirement for applicability determinations.* If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any. The requirements to determine applicability of a standard under §63.1(b)(3) and to record the results of that determination under paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

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- (c) *Additional recordkeeping requirements for sources with continuous monitoring systems.* In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of—
- (1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);
  - (2)–(4) [Reserved]
  - (5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;
  - (6) The date and time identifying each period during which the CMS was out of control, as defined in §63.8(c)(7);
  - (7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;
  - (8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
  - (9) [Reserved]
  - (10) The nature and cause of any malfunction (if known);
  - (11) The corrective action taken or preventive measures adopted;
  - (12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
  - (13) The total process operating time during the reporting period; and
  - (14) All procedures that are part of a quality control program developed and implemented for CMS under §63.8(d).
  - (15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in §63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).
- (d) *General reporting requirements.*
- (1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, and except as provided in §63.16, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).
  - (2) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under §63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under §63.9(h).
  - (3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under §63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under §63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

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- (4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.
- (5)
- (i) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see §63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.
- (ii) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with §63.6(e)(1)(i). Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in §63.9(i).
- (e) *Additional reporting requirements for sources with continuous monitoring systems —*
- (1) *General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

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- (2) *Reporting results of continuous monitoring system performance evaluations.*
- (i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under §63.8(e), simultaneously with the results of the performance test required under §63.7, unless otherwise specified in the relevant standard.
  - (ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under §63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under §63.7 is conducted.
- (3) *Excess emissions and continuous monitoring system performance report and summary report.*
- (i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when—
    - (A) More frequent reporting is specifically required by a relevant standard;
    - (B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or
    - (C) [Reserved]
    - (D) The affected source is complying with the Performance Track Provisions of §63.16, which allows less frequent reporting.
  - (ii) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:
    - (A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;
    - (B) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and
    - (C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.
  - (iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
  - (iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring

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system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

- (v) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in §63.8(c)(7) and §63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.
- (vi) *Summary report.* As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled “Summary Report—Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance” and shall contain the following information:
- (A) The company name and address of the affected source;
  - (B) An identification of each hazardous air pollutant monitored at the affected source;
  - (C) The beginning and ending dates of the reporting period;
  - (D) A brief description of the process units;
  - (E) The emission and operating parameter limitations specified in the relevant standard(s);
  - (F) The monitoring equipment manufacturer(s) and model number(s);
  - (G) The date of the latest CMS certification or audit;
  - (H) The total operating time of the affected source during the reporting period;
  - (I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
  - (J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;
  - (K) A description of any changes in CMS, processes, or controls since the last reporting period;
  - (L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and
  - (M) The date of the report.
- (vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.
- (viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for

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the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

- (4) *Reporting continuous opacity monitoring system data produced during a performance test.* The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under §63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.
- (f) *Waiver of recordkeeping or reporting requirements.*
- (1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.
- (2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.
- (3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under §63.6(i), any required compliance progress report or compliance status report required under this part (such as under §63.6(i) and §63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.
- (4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she—
- (i) Approves or denies an extension of compliance; or
- (ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or
- (iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.
- (5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.
- (6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 2003; 69 FR 21752, Apr. 22, 2004; 71 FR 20455, Apr. 20, 2006]

### § 63.11 Control device and work practice requirements.

- (a) *Applicability.*
- (1) The applicability of this section is set out in §63.1(a)(4).
- (2) This section contains requirements for control devices used to comply with applicable subparts of this part. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.
- (3) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.
- (b) *Flares.*

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- (1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.
- (2) Flares shall be steam-assisted, air-assisted, or non-assisted.
- (3) Flares shall be operated at all times when emissions may be vented to them.
- (4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.
- (5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- (6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i)

- (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity  $V_{max}$ , as determined by the following equation:

$$V_{max} = (X_{H2} - K_1) * K_2$$

Where:

$V_{max}$  = Maximum permitted velocity, m/sec.

$K_1$  = Constant, 6.0 volume-percent hydrogen.

$K_2$  = Constant, 3.9(m/sec)/volume-percent hydrogen.

$X_{H2}$  = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §63.14).

- (B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

- (ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

$H_T$  = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

$K$  = Constant =

$$1.740 \times 10^{-7} \left( \frac{1}{ppmv} \right) \left( \frac{g\text{-mole}}{scm} \right) \left( \frac{MJ}{kcal} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

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$C_i$ =Concentration of sample component  $i$  in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in §63.14).

$H_i$ =Net heat of combustion of sample component  $i$ , kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §63.14) if published values are not available or cannot be calculated.

$n$ =Number of sample components.

(7)

- (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
- (ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
- (iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity  $V_{max}$ , as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity,  $V_{max}$ , for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{max})=(H_T+28.8)/31.7$$

Where:

$V_{max}$ =Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

$H_T$ =The net heating value as determined in paragraph (b)(6) of this section.

- (8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity  $V_{max}$ . The maximum permitted velocity,  $V_{max}$ , for air-assisted flares shall be determined by the following equation:

$$V_{max}=8.71+0.708(H_T)$$

Where:

$V_{max}$ =Maximum permitted velocity, m/sec.

8.71=Constant.

0.708=Constant.

$H_T$ =The net heating value as determined in paragraph (b)(6)(ii) of this section.

- (c) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (c), (d), and (e) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, sppendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (c), (d), and (e) of this section continue to apply. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (c)(1) through (5) of

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this section have meanings that are specific to the alternative work practice standard in paragraphs (c), (d), and (e) of this section.

- (1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, and 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.
- (2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.
- (3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.
- (4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.
- (5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.
- (6) *Leak* means:
  - (i) Any emissions imaged by the optical gas instrument;
  - (ii) Indications of liquids dripping;
  - (iii) Indications by a sensor that a seal or barrier fluid system has failed; or
  - (iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.
- (d) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.
  - (1) An owner or operator of an affected source subject to 40 CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (e) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.
  - (2) Any leak detected when following the leak survey procedure in paragraph (e)(3) of this section must be identified for repair as required in the applicable subpart.
  - (3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subparts to which the equipment is subject.
  - (4) The schedule for repair is as required in the applicable subpart.
  - (5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.
  - (6) When this alternative work practice is used for detecting leaking equipment, the following are not applicable for the equipment being monitored:
    - (i) Skip period leak detection and repair;
    - (ii) Quality improvement plans; or
    - (iii) Complying with standards for allowable percentage of valves and pumps to leak.
  - (7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (d)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

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- (e) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (e)(1) through (e)(5) of this section.
- (1) *Instrument specifications.* The optical gas imaging instrument must comply with the requirements specified in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.
- (i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (e)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.
  - (ii) Provide a date and time stamp for video records of every monitoring event.
- (2) *Daily instrument check.* On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (e)(2)(i) of this section in accordance with the procedure specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (e)(2)(v) of this section.
- (i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section.
    - (A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.
    - (B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (e)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^k x_i$$

Where:

$E_{dic}$  = Mass flow rate for the daily instrument check, grams per hour

$x_i$  = Mass fraction of detectable chemical(s)  $i$  seen by the optical gas imaging instrument, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level,  $E_{sds}$ .

$E_{sds}$  = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

$k$  = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

- (ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.
- (iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.
- (iv) Establish a mass flow rate by using the following procedures:
  - (A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.
  - (B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.
  - (C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate calculated in paragraph (e)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

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- (v) Repeat the procedures specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.
- (vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §63.177 or §63.178, whichever is applicable.
- (3) *Leak survey procedure.* Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.
- (4) *Recordkeeping.* Keep the records described in paragraphs (e)(4)(i) through (e)(4)(vii) of this section:
  - (i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.
  - (ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.
  - (iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (e)(2)(i)(A) of this section.
  - (iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (e)(2)(i)(B) of this section.
  - (v) The daily instrument check. Record the distance, per paragraph (e)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (e)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.
  - (vi) *Recordkeeping requirements in the applicable subpart.* A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.
  - (vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subparts.
- (5) *Reporting.* Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to *CCG-AWP@EPA.GOV*.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 24444, May 4, 1998; 65 FR 62215, Oct. 17, 2000; 67 FR 16605, Apr. 5, 2002; 73 FR 78211, Dec. 22, 2008]

### § 63.12 State authority and delegations.

- (a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from—
  - (1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;
  - (2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or
  - (3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.
- (b)

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- (1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.
- (2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.
- (c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

### § 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

- (a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated in the following list of EPA Regional Offices.

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Air, Pesticides and Toxics Division, J.F.K. Federal Building, Boston, MA 02203-2211.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303-3104.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Air, Pesticides and Toxics, 1445 Ross Avenue, Dallas, TX 75202-2733.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air, RCRA, and Toxics Division, U.S. Environmental Protection Agency, 901 N. 5th Street, Kansas City, KS 66101.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129.

EPA Region IX (Arizona, California, Hawaii, Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau), Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

- (b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

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- (c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 66061, Dec. 1, 1998; 67 FR 4184, Jan. 29, 2002; 68 FR 32601, May 30, 2003; 68 FR 35792, June 17, 2003; 73 FR 24871, May 6, 2008; 75 FR 69532, Nov. 12, 2010]

### § 63.14 Incorporations by reference.

[Link to an amendment published at 76 FR 15589, Mar. 21, 2011.](#)

[Link to an amendment published at 76 FR 15662, Mar. 21, 2011.](#)

- (a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the National Archives and Records Administration (NARA), at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC, and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina. For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).
- (b) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.
- (1) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for §63.782.
  - (2) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for appendix A: Method 306, Sections 7.1.1 and 7.4.2.
  - (3) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for appendix A: Method 306B, Sections 6.2, 11.1, and 12.2.2.
  - (4) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §63.788, appendix A.
  - (5) ASTM D1946-77, 90, 94, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §63.11(b)(6).
  - (6) ASTM D2369-93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for §63.788, appendix A.
  - (7) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §63.11(b)(6).
  - (8) ASTM D2879-83, 96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §63.111 and §63.2406.
  - (9) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for §63.786(b).
  - (10) ASTM 3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for §63.365(e)(1) of subpart O.
  - (11) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for §63.788, appendix A.
  - (12) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for §63.782.
  - (13) ASTM D4017-90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for §63.788, appendix A.

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- (14) ASTM D4082–89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for §63.782.
- (15) ASTM D4256–89, 94, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for §63.782.
- (16) ASTM D4809–95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §63.11(b)(6).
- (17) ASTM E180–93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for §63.786(b).
- (18) ASTM E260–91, 96, General Practice for Packed Column Gas Chromatography, IBR approved for §§63.750(b)(2) and 63.786(b)(5).
- (19)–(20) [Reserved]
- (21) ASTM D2099–00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for §63.5350.
- (22)–(23) [Reserved]
- (24) ASTM D2697–86 (Reapproved 1998), “Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings,” IBR approved for §§63.3161(f)(1), 63.3521(b)(1), 63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).
- (25) ASTM D6093–97 (Reapproved 2003), “Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer,” IBR approved for §§63.3161(f)(1), 63.3521(b)(1), 63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).
- (26) ASTM D1475–98 (Reapproved 2003), “Standard Test Method for Density of Liquid Coatings, Inks, and Related Products,” IBR approved for §§63.3151(b), 63.3941(b)(4), 63.3941(c), 63.3951(c), 63.4141(b)(3), 63.4141(c), and 63.4551(c).
- (27) ASTM D6522–00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers,<sup>1</sup> IBR approved for §63.9307(c)(2) and table 5 to subpart DDDDD of this part.
- (28) ASTM D6420–99 (Reapproved 2004), Standards Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for §§60.485(g)(5), 60.485a(g)(5), 63.772(a)(1)(ii), 63.2354(b)(3)(i), 63.2354(b)(3)(ii), 63.2354(b)(3)(ii)(A), and 63.2351(b)(3)(ii)(B).
- (29) ASTM D6420–99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for §§63.5799 and 63.5850.
- (30) ASTM E 515–95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IBR approved for §63.425(i)(2).
- (31) ASTM D5291–02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IBR approved for §63.3981, appendix A.
- (32) ASTM D5965–02, “Standard Test Methods for Specific Gravity of Coating Powders,” IBR approved for §§63.3151(b) and 63.3951(c).
- (33) ASTM D6053–00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IBR approved for §63.3981, appendix A.
- (34) E145–94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IBR approved for §63.4581, appendix A.
- (35) ASTM D6784–02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method),<sup>1</sup> IBR approved for table 5 to subpart DDDDD of this part.

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- (36) ASTM D5066–91 (Reapproved 2001), “Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis,” IBR approved for §63.3161(g).
- (37) ASTM D5087–02, “Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement),” IBR approved for §§63.3165(e) and 63.3176, appendix A.
- (38) ASTM D6266–00a, “Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement),” IBR approved for §63.3165(e).
- (39) ASTM Method D388–99,,<sup>1</sup> Standard Classification of Coals by Rank,<sup>1</sup> IBR approved for §63.7575.
- (40) ASTM D396–02a, Standard Specification for Fuel Oils,<sup>1</sup> IBR approved for §63.7575.
- (41) ASTM D1835–03a, Standard Specification for Liquefied Petroleum (LP) Gases,<sup>1</sup> IBR approved for §63.7575.
- (42) ASTM D2013–01, Standard Practice for Preparing Coal Samples for Analysis,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (43) ASTM D2234–00,,<sup>1</sup> Standard Practice for Collection of a Gross Sample of Coal,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (44) ASTM D3173–02, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (45) ASTM D3683–94 (Reapproved 2000), Standard Test Method for Trace Elements in Coal and Coke Ash Absorption,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (46) ASTM D3684–01, Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (47) ASTM D5198–92 (Reapproved 2003), Standard Practice for Nitric Acid Digestion of Solid Waste,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (48) ASTM D5865–03a, Standard Test Method for Gross Calorific Value of Coal and Coke,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (49) ASTM D6323–98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (50) ASTM E711–87 (Reapproved 1996), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (51) ASTM E776–87 (Reapproved 1996), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (52) ASTM E871–82 (Reapproved 1998), Standard Method of Moisture Analysis of Particulate Wood Fuels,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part.
- (53) ASTM E885–88 (Reapproved 1996), Standard Test Methods for Analyses of Metals in Refuse-Derived Fuel by Atomic Absorption Spectroscopy,<sup>1</sup> IBR approved for table 6 to subpart DDDDD of this part 63.
- (54) ASTM D6348–03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, incorporation by reference (IBR) approved for §63.1349(b)(4)(iii) of subpart LLL and table 4 to subpart DDDD of this part as specified in the subpart.
- (55) ASTM D2013–04, Standard Practice for Preparing Coal Samples for Analysis, IBR approved for table 6 to subpart DDDDD of this part.
- (56) ASTM D2234–D2234M–03, Standard Practice for Collection of a Gross Sample of Coal, IBR approved for table 6 to subpart DDDDD of this part.
- (57) ASTM D6721–01, Standard Test Method for Determination of Chlorine in Coal by Oxidative Hydrolysis Microcoulometry, IBR approved for table 6 to subpart DDDDD of this part.

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- (58) ASTM D3173-03, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for table 6 to subpart DDDDD of this part.
- (59) ASTM D4606-03, Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method, IBR approved for table 6 to subpart DDDDD of this part.
- (60) ASTM D6357-04, Standard Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, Inductively Coupled Plasma Mass Spectrometry, and Graphite Furnace Atomic Absorption Spectrometry, IBR approved for table 6 to subpart DDDDD of this part.
- (61) ASTM D6722-01, Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by the Direct Combustion Analysis, IBR approved for table 6 to subpart DDDDD of this part.
- (62) ASTM D5865-04, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for table 6 to subpart DDDDD of this part.
- (63) ASTM D2216-05, "Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass," IBR approved for the definition of "Free organic liquids" in §63.10692.
- (64) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers,<sup>1</sup> IBR approved for table 4 to subpart ZZZZ of this part.
- (65) ASTM D 5228-92—"Standard Test Method for Determination of Butane Working Capacity of Activated Carbn," reapproved 2005, IBR approved for §63.11092(b)(1)(i)(B)( I )( ii ).
- (66) ASTM D6784-02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved April 1, 2008, IBR approved for §63.11646(a)(1)(vi), §63.11647(a)(1)(ii), §63.11647(a)(3)(ii), and §63.11647(d).
- (c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.
- (1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for §63.111 and §63.2406.
- (2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for §63.150(g)(3)(i)(C) of subpart G of this part.
- (3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2, Evaporative Loss From Floating-Roof Tanks (formerly API Publications 2517 and 2519), First Edition, April 1997, IBR approved for §63.1251 of subpart GGG of this part.
- (d) *State and Local Requirements.* The following materials listed below are available at the Air and Radiation Docket and Information Center, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone number (202) 566-1745.
- (1) *California Regulatory Requirements Applicable to the Air Toxics Program*, November 16, 2010, IBR approved for §63.99(a)(5)(ii) of subpart E of this part.
- (2) *New Jersey's Toxic Catastrophe Prevention Act Program*, (July 20, 1998), Incorporation By Reference approved for §63.99 (a)(30)(i) of subpart E of this part.
- (3)
- (i) Letter of June 7, 1999 to the U.S. Environmental Protection Agency Region 3 from the Delaware Department of Natural Resources and Environmental Control requesting formal full delegation to take over primary responsibility for implementation and enforcement of the Chemical Accident Prevention Program under Section 112(r) of the Clean Air Act Amendments of 1990.
- (ii) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for §63.99(a)(8)(i) of subpart E of this part.

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- (iii) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for §63.99(a)(8)(ii)–(v) of subpart E of this part.
- (4) Massachusetts Department of Environmental Protection regulations at 310 CMR 7.26(10)–(16), Air Pollution Control, effective as of September 5, 2008, corrected March 6, 2009, and 310 CMR 70.00, Environmental Results Program Certification, effective as of December 28, 2007. Incorporation By Reference approved for §63.99(a)(22)(ii) of subpart E of this part.
- (5)
  - (i) New Hampshire Regulations Applicable to Hazardous Air Pollutants, March, 2003. Incorporation by Reference approved for §63.99(a)(29)(iii) of subpart E of this part.
  - (ii) New Hampshire Regulations Applicable to Hazardous Air Pollutants, September 2006. Incorporation by Reference approved for §63.99(a)(29)(iv) of subpart E of this part.
- (6) Maine Regulations Applicable to Hazardous Air Pollutants (March 2006). Incorporation By Reference approved for §63.99(a)(19)(iii) of subpart E of this part.
- (7) California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989," IBR approved for §63.11173(e) and §63.11516(d).
- (8) California South Coast Air Quality Management District's "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002," Revision 0, IBR approved for §§63.11173(e) and 63.11516(d).
- (9) Rhode Island Department of Environmental Management regulations at Air Pollution Control Regulation No. 36, Control of Emissions from Organic Solvent Cleaning, effective April 8, 1996, last amended October 9, 2008, and Rhode Island Air Pollution Control, General Definitions Regulation, effective July 19, 2007, last amended October 9, 2008. Incorporation By Reference approved for §63.99(a)(40)(ii) of subpart E of this part.
- (e) The materials listed below are available for purchase from the National Institute of Standards and Technology, Springfield, VA 22161, (800) 553–6847.
  - (1) Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for §63.1303(e)(3).
  - (2) [Reserved]
- (f) The following material is available from the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P.O. Box 133318, Research Triangle Park, NC 27709–3318 or at <http://www.ncasi.org>.
  - (1) NCASI Method DI/MEOH–94.02, Methanol in Process Liquids GC/FID (Gas Chromatography/Flame Ionization Detection), August 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for §63.457(c)(3)(ii) of subpart S of this part.
  - (2) NCASI Method CI/WP–98.01, Chilled Impinger Method For Use At Wood Products Mills to Measure Formaldehyde, Methanol, and Phenol, 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for table 4 to subpart DDDD of this part.
  - (3) NCASI Method IM/CAN/WP–99.02, Impinger/Canister Source Sampling Method for Selected HAPs and Other Compounds at Wood Products Facilities, January 2004, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for table 4 to subpart DDDD of this part.
  - (4) NCASI Method ISS/FP A105.01, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds, December 2005, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for table 4 to subpart DDDD of this part.
- (g) The materials listed below are available for purchase from AOAC International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia, 22201–3301, Telephone (703) 522–3032, Fax (703) 522–5468.
  - (1) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for §63.626(d)(3)(vi).

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- (2) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for §63.626(d)(3)(vi).
  - (3) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for §63.626(d)(3)(vi).
  - (4) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for §63.626(d)(3)(vi).
  - (5) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for §63.626(d)(3)(vi).
  - (6) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for §63.626(d)(3)(vi).
  - (7) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for §63.626(d)(3)(vi).
- (h) The materials listed below are available for purchase from The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida, 33830, Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991, IBR.
- (1) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for §63.606(c)(3)(ii) and §63.626(c)(3)(ii).
  - (2) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus— $P_2O_5$  or  $Ca_3(PO_4)_2$ , Method A—Volumetric Method, IBR approved for §63.606(c)(3)(ii) and §63.626(c)(3)(ii).
  - (3) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus— $P_2O_5$  or  $Ca_3(PO_4)_2$ , Method B—Gravimetric Quimociac Method, IBR approved for §63.606(c)(3)(ii) and §63.626(c)(3)(ii).
  - (4) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus— $P_2O_5$  or  $Ca_3(PO_4)_2$ , Method C—Spectrophotometric Method, IBR approved for §63.606(c)(3)(ii) and §63.626(c)(3)(ii).
  - (5) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus— $P_2O_5$ , Method A—Volumetric Method, IBR approved for §63.606(c)(3)(ii), §63.626(c)(3)(ii), and §63.626(d)(3)(v).
  - (6) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus— $P_2O_5$ , Method B—Gravimetric Quimociac Method, IBR approved for §63.606(c)(3)(ii), §63.626(c)(3)(ii), and §63.626(d)(3)(v).
  - (7) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus— $P_2O_5$ , Method C—Spectrophotometric Method, IBR approved for §63.606(c)(3)(ii), §63.626(c)(3)(ii), and §63.626(d)(3)(v).
- (i) The following materials are available for purchase from at least one of the following addresses: ASME International, Orders/Inquiries, P.O. Box 2900, Fairfield, NJ 07007–2900; or Global Engineering Documents, Sales Department, 15 Inverness Way East, Englewood, CO 80112.
- (1) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981 IBR approved for §§63.309(k)(1)(iii), 63.865(b), 63.3166(a)(3), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), 63.9323(a)(3), 63.11148(e)(3)(iii), 63.11155(e)(3), 63.11162(f)(3)(iii) and (f)(4), 63.11163(g)(1)(iii) and (g)(2), 63.11410(j)(1)(iii), 63.11551(a)(2)(i)(C), 63.11646(a)(1)(iii), table 5 to subpart DDDDD of this part, and table 1 to subpart ZZZZZ of this part.
  - (2) [Reserved]
- (j) The following material is available for purchase from: British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.
- (1) BS EN 1593:1999, Non-destructive Testing: Leak Testing—Bubble Emission Techniques, IBR approved for §63.425(i)(2).

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- (2) [Reserved]
- (k) The following materials are available for purchase from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800:
- (1) The following methods as published in the test methods compendium known as "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition. A suffix of "A" in the method number indicates revision one (the method has been revised once). A suffix of "B" in the method number indicates revision two (the method has been revised twice).
    - (i) Method 0023A, "Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources," dated December 1996, IBR approved for §63.1208(b)(1) of subpart EEE of this part.
    - (ii) Method 9071B, "n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples," dated April 1998, IBR approved for §63.7824(e) of subpart FFFFF of this part.
    - (iii) Method 9095A, "Paint Filter Liquids Test," dated December 1996, IBR approved for §§63.7700(b) and 63.7765 of subpart EEEEE of this part.
    - (iv) Method 9095B, "Paint Filter Liquids Test," (revision 2), dated November 2004, IBR approved for the definition of "Free organic liquids" in §63.10692, §63.10885(a)(1), and the definition of "Free liquids" in §63.10906.
    - (v) SW-846 Method 74741B, Revision 2, "Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)" February 2007, IBR approved for §63.11647(f)(2).
  - (2) The following method as published in the National Institute of Occupational Safety and Health (NIOSH) test method compendium, "NIOSH Manual of Analytical Methods", NIOSH publication no. 94-113, Fourth Edition, August 15, 1994.
    - (i) NIOSH Method 2010, "Amines, Aliphatic," Issue 2, August 15, 1994, IBR approved for §63.7732(g)(1)(v) of subpart EEEEE of this part.
    - (ii) [Reserved]
- (l) The following materials are available for purchase from the American Society of Heating, Refrigerating, and Air-Conditioning Engineers at 1791 Tullie Circle, NE., Atlanta, GA 30329 or by electronic mail at [orders@ashrae.org](mailto:orders@ashrae.org):
- (1) American Society of Heating, Refrigerating, and Air Conditioning Engineers Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992," IBR approved for §§63.11173(e) and 63.11516(d).
  - (2) [Reserved]
- (m) The following materials are available from the California Air Resources Board, Engineering and Certification Branch, 1001 I Street, P.O. Box 2815, Sacramento, CA 95812-2815, Telephone (916) 327-0900 and are also available at the following Web site: <http://www.arb.ca.gov/vapor/vapor.htm>.
- (1) California Air Resources Board Vapor Recovery Test Procedure TP-201.1.—"Volumetric Efficiency for Phase I Vapor Recovery Systems," adopted April 12, 1996, and amended February 1, 2001 and October 8, 2003, IBR approved for §63.11120(b)(1).
  - (2) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E—"Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves," adopted October 8, 2003, IBR approved for §63.11120(a)(1)(i).
  - (3) California Air Resources Board Vapor Recovery Test Procedure TP-201.3—"Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities," adopted April 12, 1996 and amended March 17, 1999, IBR approved for §63.11120(a)(2)(i).
- (n) The following material is available from the Texas Commission on Environmental Quality (TCEQ) Library, Post Office Box 13087, Austin, Texas 78711-3087, telephone number (512) 239-0028 or at [http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2002-12-HGB/02046sipapp\\_ado.pdf](http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2002-12-HGB/02046sipapp_ado.pdf):

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- (1) "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources," Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, prepared by Texas Commission on Environmental Quality, January 31, 2003, IBR approved for §63.654(c)(1) and (g)(4)(i) of subpart CC of this part.
- (2) [Reserved]
- (o) The following material is available from the Bay Area Air Quality Management District (BAAQMD), 939 Ellis Street, San Francisco, California 94109, and is also available at the following Web site:  
*<http://www.arb.ca.gov/DRDB/BA/CURHTML/ST/st30.pdf>*
  - (1) "BAAQMD Source Test Procedure ST-30—Static Pressure Integrity Test, Underground Storage Tanks," adopted November 30, 1983, and amended December 21, 1994, IBR approved for §63.11120(a)(2)(iii).
  - (2) [Reserved]

[59 FR 12430, Mar. 16, 1994]

**Editorial Note:** For Federal Register citations affecting §63.14, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.fdsys.gov](http://www.fdsys.gov).

### § 63.15 Availability of information and confidentiality.

#### (a) *Availability of information.*

- (1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.
- (2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

#### (b) *Confidentiality.*

- (1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.
- (2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

### § 63.16 Performance Track Provisions.

- (a) Notwithstanding any other requirements in this part, an affected source at any major source or any area source at a Performance Track member facility, which is subject to regular periodic reporting under any subpart of this part, may submit such periodic reports at an interval that is twice the length of the regular period specified in the applicable subparts; provided, that for sources subject to permits under 40 CFR part 70 or 71 no interval so calculated for any report of the results of any required monitoring may be less frequent than once in every six months.
- (b) Notwithstanding any other requirements in this part, the modifications of reporting requirements in paragraph (c) of this section apply to any major source at a Performance Track member facility which is subject to requirements under any of the subparts of this part and which has:
  - (1) Reduced its total HAP emissions to less than 25 tons per year;
  - (2) Reduced its emissions of each individual HAP to less than 10 tons per year; and
  - (3) Reduced emissions of all HAPs covered by each MACT standard to at least the level required for full compliance with the applicable emission standard.

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- (c) For affected sources at any area source at a Performance Track member facility and which meet the requirements of paragraph (b)(3) of this section, or for affected sources at any major source that meet the requirements of paragraph (b) of this section:
- (1) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using add-on control technology, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is meeting the emission standard by continuing to use that control technology. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
  - (2) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using pollution prevention, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions to levels at or below those required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
  - (3) If the emission standard to which the affected source is subject is based on pollution prevention, and the affected source complies by using pollution prevention and reduces emissions by an additional 50 percent or greater than required by the applicable emission standard, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions by an additional 50 percent or greater than required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
  - (4) Notwithstanding the provisions of paragraphs (c)(1) through (3), of this section, for sources subject to permits under 40 CFR part 70 or 71, the results of any required monitoring and recordkeeping must be reported not less frequently than once in every six months.

[69 FR 21753, Apr. 22, 2004]

**Table 1 to Subpart A of Part 63—Detection Sensitivity Levels (grams per hour)**

Monitoring frequency per subpart <sup>a</sup>	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

<sup>a</sup>When this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table, in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

[73 FR 78213, Dec. 22, 2008]

## APPENDIX NESHAP - 40 CFR 63, SUBPART AA

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Federal Revision Date: April 20, 2006

Standardized Conditions Revision Date: July 8, 2011

### Subpart AA—National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants

#### GENERAL

#### § 63.600 Applicability.

- (a) Except as provided in paragraphs (c) and (d) of this section, the requirements of this subpart apply to the owner or operator of each phosphoric acid manufacturing plant.
- (b) The requirements of this subpart apply to emissions of hazardous air pollutants (HAPs) emitted from the following new or existing affected sources at a phosphoric acid manufacturing plant:
  - (1) Each wet-process phosphoric acid process line. The requirements of this subpart apply to the following emission points which are components of a wet-process phosphoric acid process line: reactors, filters, evaporators, and hot wells;
  - (2) Each evaporative cooling tower at a phosphoric acid manufacturing plant;
  - (3) Each phosphate rock dryer located at a phosphoric acid manufacturing plant;
  - (4) Each phosphate rock calciner located at a phosphoric acid manufacturing plant;
  - (5) Each superphosphoric acid process line. The requirements of this subpart apply to the following emission points which are components of a superphosphoric acid process line: evaporators, hot wells, acid sumps, and cooling tanks; and
  - (6) Each purified acid process line. The requirements of this subpart apply to the following emission points which are components of a purified phosphoric acid process line: solvent extraction process equipment, solvent stripping and recovery equipment, seal tanks, carbon treatment equipment, cooling towers, storage tanks, pumps and process piping.
- (c) The requirements of this subpart do not apply to the owner or operator of a new or existing phosphoric acid manufacturing plant that is not a major source as defined in § 63.2.
- (d) The provisions of this subpart do not apply to research and development facilities as defined in § 63.601.
- (e) The emission limitations and operating parameter requirements of this subpart do not apply during periods of startup, shutdown, or malfunction, as those terms are defined in Sec. 63.2, provided that the source is operated in accordance with Sec. 63.6(e)(1)(i).

#### § 63.601 Definitions.

Terms used in this subpart are defined in the Clean Air Act, in § 63.2, or in this section as follows:

Equivalent P<sub>2</sub>O<sub>5</sub> feed means the quantity of phosphorus, expressed as phosphorous pentoxide, fed to the process.

Evaporative cooling tower means an open water recirculating device that uses fans or natural draft to draw or force ambient air through the device to remove heat from process water by direct contact.

Exceedance means a departure from an indicator range established under this subpart, consistent with any averaging period specified for averaging the results of the monitoring.

HAP metals mean those metals and their compounds (in particulate or volatile form) that are included on the list of hazardous air pollutants in section 112 of the Clean Air Act. HAP metals include, but are not limited to: antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium expressed as particulate matter as measured by the methods and procedures in this subpart or an approved alternative method. For the purposes of this subpart, HAP metals are expressed as particulate matter as measured by 40 CFR Part 60, Appendix A, Method 5.

Phosphate rock calciner means the equipment used to remove moisture and organic matter from phosphate rock through direct or indirect heating.

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Phosphate rock dryer means the equipment used to reduce the moisture content of phosphate rock through direct or indirect heating.

Phosphate rock feed means all material entering any phosphate rock dryer or phosphate rock calciner including moisture and extraneous material as well as the following ore materials: fluorapatite, hydroxylapatite, chlorapatite, and carbonateapatite.

Purified phosphoric acid process line means any process line which uses a HAP as a solvent in the separation of impurities from the product acid for the purposes of rendering that product suitable for industrial, manufacturing or food grade uses.

Research and development facility means research or laboratory operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and where the facility is not engaged in the manufacture of products for commercial sale in commerce or other off-site distribution, except in a de minimis manner.

Superphosphoric acid process line means any process line which concentrates wet-process phosphoric acid to 66 percent or greater P<sub>2</sub>O<sub>5</sub> content by weight.

Total fluorides means elemental fluorine and all fluoride compounds, including the HAP hydrogen fluoride, as measured by reference methods specified in 40 CFR Part 60,

Appendix A , Method 13 A or B, or by equivalent or alternative methods approved by the Administrator pursuant to § 63.7(f).

Wet process phosphoric acid process line means any process line manufacturing phosphoric acid by reacting phosphate rock and acid.

### EMISSION STANDARDS AND OPERATING LIMITS

#### § 63.602 Standards for existing sources.

- (a) Wet process phosphoric acid process line. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 10.0 gram/metric ton of equivalent P<sub>2</sub>O<sub>5</sub> feed (0.020 lb/ton).
- (b) Superphosphoric acid process line.
  - (1) Vacuum evaporation process. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 5.0 gram/metric ton of equivalent P<sub>2</sub>O<sub>5</sub> feed (0.010 lb/ton).
  - (2) Submerged combustion process. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 100.0 gram/metric ton of equivalent P<sub>2</sub>O<sub>5</sub> feed (0.20 lb/ton).
- (c) Phosphate rock dryer. On or after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain particulate matter in excess of 0.10750 kilogram/metric ton of phosphate rock feed (0.2150 lb/ton).
- (d) Phosphate rock calciner. On or after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain particulate matter in excess of 0.1810 gram per dry standard cubic meter (g/dscm)(0.080 grains per dry standard cubic foot (gr/dscf)).
- (e) Evaporative cooling tower. No owner or operator shall introduce into any evaporative cooling tower any liquid effluent from any wet scrubbing device installed to control emissions from process equipment. Each owner or operator of an affected source subject to this paragraph (e) must certify to the Administrator annually that he/she has complied with the requirements contained herein.

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(f) Purified phosphoric acid process line.

- (1) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of subpart H of this part.
- (2) For any existing purified phosphoric acid process line, any of the following shall constitute a violation of this subpart:
  - (i) A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of twenty parts per million for each product acid stream.
  - (ii) A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of thirty parts per million for each raffinate stream.
  - (iii) A daily average chiller stack exit gas stream temperature in excess of fifty degrees Fahrenheit.

**§ 63.603 Standards for new sources.**

- (a) Wet process phosphoric acid process line. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 6.750 gram/metric ton of equivalent  $P_2O_5$  feed (0.01350 lb/ton).
- (b) Superphosphoric acid process line. On and after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 4.350 gram/metric ton of equivalent  $P_2O_5$  feed (0.00870 lb/ton).
- (c) Phosphate rock dryer. On or after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain particulate matter in excess of 0.030 kilogram/metric ton per megagram of phosphate rock feed (0.060 lb/ton).
- (d) Phosphate rock calciner. On or after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain particulate matter in excess of 0.0920 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)].
- (e) Evaporative cooling tower. No owner or operator shall introduce into any evaporative cooling tower any liquid effluent from any wet scrubbing device installed to control emissions from process equipment. Each owner or operator of an affected source subject to this paragraph (e) must certify to the Administrator annually that he/she has complied with the requirements contained herein.
- (f) Purified phosphoric acid process line.

- (1) Each owner or operator subject to the provisions of this subpart shall comply with the provisions of subpart H of this part.
- (2) For any new purified phosphoric acid process line, any of the following shall constitute a violation of this subpart:
  - (i) A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of twenty parts per million for each product acid stream.
  - (ii) A thirty day average of daily concentration measurements of methyl isobutyl ketone in excess of thirty parts per million for each raffinate stream.
  - (iii) A daily average chiller stack exit gas stream temperature in excess of fifty degrees Fahrenheit.

**§ 63.604 Operating Requirements.**

On or after the date on which the performance test required to be conducted by §§ 63.7 and 63.606 is required to be completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of § 63.605(d)(1) or (2).

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### MONITORING AND COMPLIANCE PROVISIONS

#### § 63.605 Monitoring requirements.

- (a) Each owner or operator of a new or existing wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, or phosphate rock calciner subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of  $\pm 5$  percent over its operating range.
- (b) (1) Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric acid process line subject to the provisions of this subpart shall maintain a daily record of equivalent  $P_2O_5$  feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of paragraph (a) of this section and then by proceeding according to §63.606(c)(3).
- (2) Each owner or operator of a new or existing phosphate rock calciner or phosphate rock dryer subject to the provisions of this subpart shall maintain a daily record of phosphate rock feed by determining the total mass rate in metric ton/hour of phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of paragraph (a) of this section.
- (c) Each owner or operator of a new or existing wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer or phosphate rock calciner using a wet scrubbing emission control system shall install, calibrate, maintain, and operate the following monitoring systems:
- (1) A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range.
- (2) A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range.
- (d) Following the date on which the performance test required in § 63.606 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating parameters using the methodology of either paragraph (d)(1) or (2) of this section:
- (1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is  $\pm 20$  percent of the baseline average value determined as a requirement of §63.606(c)(4), (d)(4), or (e)(2). The Administrator retains the right to reduce the  $\pm 20$  percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard, but, in no instance shall the adjustment be reduced to less than  $\pm 10$  percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous tests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to §§63.607(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.
- (2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this subpart. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in §63.606(c)(4), (d)(4), or (e)(2). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the purposes of this paragraph using

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the test methods required in this subpart and established in the manner required in §63.606(c)(4), (d)(4), or (e)(2). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

- (e) Each owner or operator of a new or existing purified phosphoric acid process line shall:
- (1) Install, calibrate, maintain, and operate a monitoring system which continuously measures and permanently records the stack gas exit temperature for each chiller stack.
  - (2) Measure and record the concentration of methyl isobutyl ketone in each product acid stream and each raffinate stream once daily.

### § 63.606 Performance tests and compliance provisions.

- (a) (1) On or before the applicable compliance date in § 63.609 and once per annum thereafter, each owner or operator of a phosphoric acid manufacturing plant shall conduct a performance test to demonstrate compliance with the applicable emission standard for each existing wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, and phosphate rock calciner. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.
- (2) As required by § 63.7(a)(2) and once per annum thereafter, each owner or operator of a phosphoric acid manufacturing plant shall conduct a performance test to demonstrate compliance with the applicable emission standard for each new wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, and phosphate rock calciner. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.
- (b) In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR Part 60, Appendix A, or other methods and procedures as specified in this section, except as provided in § 63.7(f).
- (c) Each owner or operator of a new or existing wet-process phosphoric acid process line or superphosphoric acid process line shall determine compliance with the applicable total fluorides standards in § 63.602 or § 63.603 as follows:
- (1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left( \sum_{i=1}^N C_{si} Q_{sdi} \right) / (PK)$$

where:

- E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P<sub>2</sub>O<sub>5</sub> feed.  
C<sub>si</sub> = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).  
Q<sub>sdi</sub> = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).  
N = number of emission points associated with the affected facility.  
P = equivalent P<sub>2</sub>O<sub>5</sub> feed rate, metric ton/hr (ton/hr).  
K = conversion factor, 1000 mg/g (453,600 mg/lb).

- (2) Method 13A or 13B (40 CFR part 60, appendix A) shall be used to determine the total fluorides concentration (C<sub>si</sub>) and volumetric flow rate (Q<sub>sdi</sub>) of the effluent gas from each of the emission points. If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2,

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described in section 7.3.3 and 7.3.4. in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

- (3) The equivalent  $P_2O_5$  feed rate (P) shall be computed using the following equation:

$$P = M_p R_p$$

where:

$M_p$  = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).

$R_p$  =  $P_2O_5$  content, decimal fraction.

(i) The accountability system described in § 63.605(a) and (b) shall be used to determine the mass flow rate ( $M_p$ ) of the phosphorus-bearing feed.

(ii) The  $P_2O_5$  content ( $R_p$ ) of the feed shall be determined using as appropriate the following methods (incorporated by reference- see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, where applicable:

(A) Section IX, Methods of Analysis For Phosphate Rock, No. 1 Preparation of Sample.

(B) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus- $P_2O_5$  or  $Ca_3(PO_4)_2$ , Method A-Volumetric Method.

(C) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus- $P_2O_5$  or  $Ca_3(PO_4)_2$ , Method B-Gravimetric Quimociac Method.

(D) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus- $P_2O_5$  or  $Ca_3(PO_4)_2$ , Method C-Spectrophotometric Method.

(E) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus- $P_2O_5$ , Method A-Volumetric Method.

(F) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus- $P_2O_5$ , Method B-Gravimetric Quimociac Method.

(G) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus- $P_2O_5$ , Method C-Spectrophotometric Method.

- (4) To comply with § 63.605(d)(1) or (2), the owner or operator shall use the monitoring systems in § 63.605(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of § 63.605(d)(1) or (2).

- (d) Each owner or operator of a new or existing phosphate rock dryer shall demonstrate compliance with the particulate matter standards in § 63.602 or § 63.603 as follows:

- (1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = (C_s Q_{sd}) / (PK)$$

where:

E = emission rate of particulate matter, kg/Mg (lb/ton) of phosphate rock feed.

$C_s$  = concentration of particulate matter, g/dscm (g/dscf).

$Q_{sd}$  = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P = phosphate rock feed rate, Mg/hr (ton/hr).

K = conversion factor, 1000 g/kg (453.6 g/lb).

- (2) Method 5 (40 CFR part 60, appendix A) shall be used to determine the particulate matter concentration ( $c_s$ ) and volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).
- (3) The system described in § 63.605(a) shall be used to determine the phosphate rock feed rate (P) for each run.
- (4) To comply with § 63.605(d)(1) or (2), the owner or operator shall use the monitoring systems in § 63.605(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of

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the particulate matter runs. The arithmetic average of the one-hour averages determined during the three test runs shall be used as the baseline average values for the purposes of § 63.605(d)(1) or (2).

- (e) Each owner or operator of a new or existing phosphate rock calciner shall demonstrate compliance with the particulate matter standards in §§ 63.602 and 63.603 as follows:
  - (1) Method 5 (40 CFR part 60, appendix A) shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 60 minutes and 1.70 dscm.
  - (2) To comply with § 63.605(d)(1) or (2), the owner or operator shall use the monitoring systems in § 63.605(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the particulate matter runs. The arithmetic average of the one-hour averages determined during the three test runs shall be used as the baseline average values for the purposes of § 63.605(d)(1) or (2).

### NOTIFICATION, REPORTING AND RECORDKEEPING

#### § 63.607 Notification, recordkeeping, and reporting requirements.

- (a) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in § 63.9.
- (b) Each owner or operator subject to the requirements of this subpart shall comply with the recordkeeping requirements in § 63.10.
- (c) The owner or operator of an affected source shall comply with the reporting requirements specified in § 63.10 as follows:
  - (1) Performance test report. As required by § 63.10, the owner or operator shall report the results of the initial and annual performance tests as part of the notification of compliance status required in § 63.9.
  - (2) Excess emissions report. As required by § 63.10, the owner or operator of an affected source shall submit an excess emissions report for any exceedance of an operating parameter limit. The report shall contain the information specified in § 63.10. When no exceedances of an operating parameter have occurred, such information shall be included in the report. The report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, the owner or operator shall report quarterly until a request to reduce reporting frequency is approved as described in § 63.10.
  - (3) Summary report. If the total duration of control system exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, the owner or operator shall submit a summary report containing the information specified in § 63.10 rather than the full excess emissions report, unless required by the Administrator. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.
  - (4) If the total duration of control system operating parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, the owner or operator shall submit a summary report and the excess emissions report.

#### § 63.608 Applicability of general provisions.

The requirements of the general provisions in subpart A of this part that are applicable to the owner or operator subject to the requirements of this subpart are shown in appendix A to this subpart.

#### § 63.609 Compliance dates.

- (a) Each owner or operator of an existing affected source at a phosphoric acid manufacturing plant shall achieve compliance with the requirements of this subpart no later than June 10, 2002. Notwithstanding the requirements of § 63.7(a)(2)(iii), each owner or operator of an existing source at an affected existing phosphoric acid manufacturing plant shall fulfill the applicable requirements of § 63.606 no later than June 10, 2002.

- (b) Each owner or operator of a phosphoric acid manufacturing plant that commences construction or reconstruction of an affected source after December 27, 1996 shall achieve compliance with the requirements of this subpart upon startup of operations or by June 10, 1999, whichever is later.

OTHER

**§ 63.610 Exemption from new source performance standards.**

Any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR Part 60, subpart T, subpart U or subpart NN. To be exempt, a source must have a current operating permit pursuant to Title V of the Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is effective upon the date that the owner or operator demonstrates to the Administrator that the requirements of §§ 63.604, 63.605 and 63.606 have been met.

**§63.611 Implementation and enforcement.**

- (a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.
- (c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.
  - (1) Approval of alternatives to the requirements in Sec. Sec. 63.600, 63.602 through 63.604, and 63.609 through 63.610.
  - (2) Approval of major alternatives to test methods under Sec. 63.7(e)(2)(ii) and (f), as defined in Sec. 63.90, and as required in this subpart.
  - (3) Approval of major alternatives to monitoring under Sec. 63.8(f), as defined in Sec. 63.90, and as required in this subpart.
  - (4) Approval of major alternatives to recordkeeping and reporting under Sec. 63.10(f), as defined in Sec. 63.90, and as required in this subpart.

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**Appendix A to Subpart AA of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart AA**

<b>40 CFR citation</b>	<b>Requirement</b>	<b>Applies to subpart AA</b>	<b>Comment</b>
63.1(a)(1) through (4)	General Applicability	Yes.	
63.1(a)(5)		No	[Reserved].
63.1(a)(6) through (8)		Yes.	
63.1(a)(9)		No	[Reserved].
63.1(a)(10) through (14)		Yes.	
63.1(b)	Initial Applicability Determination	Yes.	
63.1(c)(1)	Applicability After Standard Established	Yes.	
63.1(c)(2)		Yes.	Some plants may be area sources.
63.1(c)(3)		No	[Reserved].
63.1(c)(4) and (5)		Yes.	
63.1(d)		No	[Reserved].
63.1(e)	Applicability of Permit Program	Yes.	
63.2	Definitions	Yes.	Additional definitions in §63.601.
63.3	Units and Abbreviations	Yes.	
63.4(a)(1) through (3)	Prohibited Activities	Yes.	
63.4(a)(4)		No	[Reserved].
63.4(a)(5)		Yes.	
63.4(b) and (c)	Circumvention/Severability	Yes.	
63.5(a)	Construction/Reconstruction Applicability	Yes.	
63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	
63.5(b)(2)		No	[Reserved].
63.5(b)(3) through (6)		Yes.	
63.5(c)		No	[Reserved].
63.5(d)	Application for Approval of Construction/Reconstruction	Yes.	
63.5(e)	Approval of Construction/Reconstruction	Yes.	

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<b>40 CFR citation</b>	<b>Requirement</b>	<b>Applies to subpart AA</b>	<b>Comment</b>
63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	
63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	
63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes.	See also §63.609.
63.6(b)(6)		No	[Reserved].
63.6(b)(7)		Yes.	
63.6(c)(1)	Existing Sources Dates	Yes.	§63.609 specifies dates.
63.6(c)(2)		Yes.	
63.6(c)(3) and (4)		No	[Reserved].
63.6(c)(5)		Yes.	
63.6(d)		No	[Reserved].
63.6(e)(1) and (2)	Operation & Maintenance Requirements	Yes	
63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	
63.6(f)	Compliance with Emission Standards	Yes	
63.6(g)	Alternative Standard	Yes.	
63.6(h)	Compliance with Opacity/VE Standards	No	Subpart AA does not include VE/opacity standards.
63.6(i)(1) through (14)	Extension of Compliance	Yes.	
63.6(i)(15)		No	[Reserved].
63.6(i)(16)		Yes.	
63.6(j)	Exemption from Compliance	Yes.	
63.7(a)	Performance Test Requirements Applicability	Yes.	§63.609(a) applies rather than §63.7(a)(2)(iii).
63.7(b)	Notification	Yes.	
63.7(c)	Quality Assurance/Test Plan	Yes.	
63.7(d)	Testing Facilities	Yes.	
63.7(e)	Conduct of Tests	Yes.	§§63.604 and 63.605 specify additional requirements.
63.7(f)	Alternative Test Method	Yes.	
63.7(g)	Data Analysis	Yes.	
63.7(h)	Waiver of Tests	Yes.	
63.8(a)(1)	Monitoring Requirements Applicability	Yes.	

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<b>40 CFR citation</b>	<b>Requirement</b>	<b>Applies to subpart AA</b>	<b>Comment</b>
63.8(a)(2)		No	Subpart AA does not require CMS performance specifications.
63.8(a)(3)		No	[Reserved].
63.8(a)(4)		Yes.	
63.8(b)	Conduct of Monitoring	Yes.	
63.8(c)(1) through (4)	CMS Operation/Maintenance	Yes.	
63.8(c)(5) through (8)		No	Subpart AA does not require COMS/CEMS or CMS performance specifications.
63.8(d)	Quality Control	Yes.	
63.8(e)	CMS Performance Evaluation	No	Subpart AA does not require CMS performance evaluations
63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	
63.8(f)(6)	Alternative to RATA Test	No	Subpart AA does not require CEMS.
63.8(g)(1)	Data Reduction	Yes.	
63.8(g)(2)		No	Subpart AA does not require COMS or CEMS
63.8(g)(3) through (5)		Yes.	
63.9(a)	Notification Requirements Applicability	Yes.	
63.9(b)	Initial Notifications	Yes.	
63.9(c)	Request for Compliance Extension	Yes.	
63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
63.9(f)	Notification of VE/Opacity Test	No	Subpart AA does not include VE/opacity standards.
63.9(g)	Additional CMS Notifications	No	Subpart AA does not require CMS performance evaluation, COMS, or CEMS.
63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	
63.9(h)(4)		No	[Reserved].
63.9(h)(5) and (6)		Yes.	
63.9(i)	Adjustment of Deadlines	Yes.	
63.9(j)	Change in Previous Information	Yes.	
63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	

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<b>40 CFR citation</b>	<b>Requirement</b>	<b>Applies to subpart AA</b>	<b>Comment</b>
63.10(b)	General Recordkeeping Requirements	Yes.	
63.10(c)(1)	Additional CMS Recordkeeping	Yes.	
63.10(c)(2) through (4)		No	[Reserved].
63.10(c)(5)		Yes.	
63.10(c)(6)		No	Subpart AA does not require CMS performance specifications.
63.10(c)(7) and (8)		Yes.	
63.10(c)(9)		No	[Reserved].
63.10(c)(10) through (13)		Yes.	
63.10(c)(14)		No	Subpart AA does not require a CMS quality control program.
63.10(c)(15)		Yes.	
63.10(d)(1)	General Reporting Requirements	Yes.	
63.10(d)(2)	Performance Test Results	Yes.	
63.10(d)(3)	Opacity or VE Observations	No	Subpart AA does not include VE/opacity standards.
63.10(d)(4) and (5)	Progress Reports/Startup, Shutdown, and Malfunction Reports	Yes.	
63.10(e)(1) and (2)	Additional CMS Reports	No	Subpart AA does not require CEMS or CMS performance evaluations.
63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes.	§63.606(c)(2) includes additional requirements. A CMS performance report is not required.
63.10(e)(4)	COMS Data Reports	No	Subpart AA does not require COMS.
63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
63.11(a)	Control Device Requirements Applicability	Yes.	
63.11(b)	Flares	No	Flares not applicable.
63.12	State Authority and Delegations	Yes.	
63.13	Addresses	Yes.	
63.14	Incorporation by Reference	Yes.	
63.15	Information Availability/Confidentiality	Yes.	

## APPENDIX NESHAP - 40 CFR 63, SUBPART BB

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Federal Revision Date: April 20, 2006

Standardized Conditions Revision Date: June 15, 2011

### Subpart BB—National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants

#### § 63.620 Applicability.

- (a) Except as provided in paragraphs (c), (d), and (e) of this section, the requirements of this subpart apply to the owner or operator of each phosphate fertilizers production plant.
- (b) The requirements of this subpart apply to emissions of hazardous air pollutants (HAPs) emitted from the following new or existing affected sources at a phosphate fertilizers production plant:
  - (1) Each diammonium and/or monoammonium phosphate process line. The requirements of this subpart apply to the following emission points which are components of a diammonium and/or monoammonium phosphate process line: reactors, granulators, dryers, coolers, screens, and mills.
  - (2) Each granular triple superphosphate process line. The requirements of this subpart apply to the following emission points which are components of a granular triple superphosphate process line: mixers, curing belts (dens), reactors, granulators, dryers, coolers, screens, and mills.
  - (3) Each granular triple superphosphate storage building. The requirements of this subpart apply to the following emission points which are components of a granular triple superphosphate storage building: storage or curing buildings, conveyors, elevators, screens and mills.
- (c) The requirements of this subpart do not apply to the owner or operator of a new or existing phosphate fertilizers production plant that is not a major source as defined in §63.2.
- (d) The provisions of this subpart do not apply to research and development facilities as defined in §63.621.
- (e) The emission limitations and operating parameter requirements of this subpart do not apply during periods of startup, shutdown, or malfunction, as those terms are defined in §63.2, provided that the source is operated in accordance with §63.6(e)(1)(i).

[64 FR 31382, June 10, 1999, as amended at 67 FR 65077, Dec. 17, 2001; 71 FR 20457, Apr. 20, 2006]

#### § 63.621 Definitions.

Terms used in this subpart are defined in the Clean Air Act, in §63.2, or in this section as follows:

*Diammonium and/or monoammonium phosphate process line* means any process line manufacturing granular diammonium and/or monoammonium phosphate by reacting ammonia with phosphoric acid which has been derived from or manufactured by reacting phosphate rock and acid.

*Equivalent P<sub>2</sub>O<sub>5</sub> feed* means the quantity of phosphorus, expressed as phosphorous pentoxide, fed to the process.

*Equivalent P<sub>2</sub>O<sub>5</sub> stored* means the quantity of phosphorus, expressed as phosphorus pentoxide, being cured or stored in the affected facility.

*Exceedance* means a departure from an indicator range established for monitoring under this subpart, consistent with any averaging period specified for averaging the results of the monitoring.

*Fresh granular triple superphosphate* means granular triple superphosphate produced within the preceding 72 hours.

*Granular triple superphosphate process line* means any process line, not including storage buildings, manufacturing granular triple superphosphate by reacting phosphate rock with phosphoric acid.

*Granular triple superphosphate storage building* means any building curing or storing fresh granular triple superphosphate.

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*Research and development facility* means research or laboratory operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and where the facility is not engaged in the manufacture of products for commercial sale in commerce or other off-site distribution, except in a de minimis manner.

*Total fluorides* means elemental fluorine and all fluoride compounds, including the HAP hydrogen fluoride, as measured by reference methods specified in 40 CFR part 60, appendix A, Method 13 A or B, or by equivalent or alternative methods approved by the Administrator pursuant to §63.7(f).

### § 63.622 Standards for existing sources.

- (a) *Diammonium and/or monoammonium phosphate process line.* On and after the date on which the performance test required to be conducted by §§63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 30 grams/metric ton of equivalent P<sub>2</sub>O<sub>5</sub>feed (0.060 lb/ton).
- (b) *Granular triple superphosphate process line.* On and after the date on which the performance test required to be conducted by §§63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 75 grams/metric ton of equivalent P<sub>2</sub>O<sub>5</sub>feed (0.150 lb/ton).
- (c) *Granular triple superphosphate storage building.*
  - (1) On and after the date on which the performance test required to be conducted by §§63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 0.250 grams/hr/metric ton of equivalent P<sub>2</sub>O<sub>5</sub>stored ( $5.0 \times 10^{-4}$  lb/hr/ton of equivalent P<sub>2</sub>O<sub>5</sub>stored).
  - (2) No owner or operator subject to the provisions of this subpart shall ship fresh granular triple superphosphate from an affected facility.

### § 63.623 Standards for new sources.

- (a) *Diammonium and/or monoammonium phosphate process line.* On and after the date on which the performance test required to be conducted by §§63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 29.0 grams/metric ton of equivalent P<sub>2</sub>O<sub>5</sub>feed (0.0580 lb/ton).
- (b) *Granular triple superphosphate process line.* On and after the date on which the performance test required to be conducted by §§63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 61.50 grams/metric ton of equivalent P<sub>2</sub>O<sub>5</sub>feed (0.1230 lb/ton).
- (c) *Granular triple superphosphate storage building.*
  - (1) On and after the date on which the performance test required to be conducted by §§63.7 and 63.626 is required to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected source any gases which contain total fluorides in excess of 0.250 grams/hr/metric ton of equivalent P<sub>2</sub>O<sub>5</sub>stored ( $5.0 \times 10^{-4}$  lb/hr/ton of equivalent P<sub>2</sub>O<sub>5</sub>stored).
  - (2) No owner or operator subject to the provisions of this subpart shall ship fresh granular triple superphosphate from an affected facility.

### § 63.624 Operating requirements.

On or after the date on which the performance test required to be conducted by §§63.7 and 63.626 is required to be completed, the owner/operator using a wet scrubbing emission control system must maintain daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber within the allowable ranges established pursuant to the requirements of §63.625(f)(1) or (2).

[67 FR 40818, June 13, 2002]

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### § 63.625 Monitoring requirements.

- (a) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line or granular triple superphosphate process line subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring system which can be used to determine and permanently record the mass flow of phosphorus-bearing feed material to the process. The monitoring system shall have an accuracy of  $\pm 5$  percent over its operating range.
- (b) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line or granular triple superphosphate process line subject to the provisions of this subpart shall maintain a daily record of equivalent  $P_2O_5$  feed by first determining the total mass rate in metric ton/hour of phosphorus bearing feed using a monitoring system for measuring mass flowrate which meets the requirements of paragraph (a) of this section and then by proceeding according to §63.626(c)(3).
- (c) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line, granular triple superphosphate process line, or granular triple superphosphate storage building using a wet scrubbing emission control system shall install, calibrate, maintain, and operate the following monitoring systems:
  - (1) A monitoring system which continuously measures and permanently records the pressure drop across each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range.
  - (2) A monitoring system which continuously measures and permanently records the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system in 15-minute block averages. The monitoring system shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range.
- (d) The owner or operator of any granular triple superphosphate storage building subject to the provisions of this subpart shall maintain an accurate account of granular triple superphosphate in storage to permit the determination of the amount of equivalent  $P_2O_5$  stored.
- (e)
  - (1) Each owner or operator of a new or existing granular triple superphosphate storage building subject to the provisions of this subpart shall maintain a daily record of total equivalent  $P_2O_5$  stored by multiplying the percentage  $P_2O_5$  content, as determined by §63.626(d)(3), times the total mass of granular triple superphosphate stored.
  - (2) The owner or operator of any granular triple superphosphate storage building subject to the provisions of this subpart shall develop for approval by the Administrator a site-specific methodology including sufficient recordkeeping for the purposes of demonstrating compliance with §63.622(c)(2) or §63.623(c)(2), as applicable.
- (f) Following the date on which the performance test required in §63.626 is completed, the owner or operator of a new or existing affected source using a wet scrubbing emission control system and subject to emissions limitations for total fluorides or particulate matter contained in this subpart must establish allowable ranges for operating parameters using the methodology of either paragraph (f)(1) or (2) of this section:
  - (1) The allowable range for the daily averages of the pressure drop across each scrubber and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system is  $\pm 20$  percent of the baseline average value determined as a requirement of §63.626(c)(4) or (d)(4). The Administrator retains the right to reduce the  $\pm 20$  percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard, but in no instance shall the adjustment be reduced to less than  $\pm 10$  percent. The owner or operator must notify the Administrator of the baseline average value and must notify the Administrator each time that the baseline value is changed as a result of the most recent performance test. When a source using the methodology of this paragraph is retested, the owner or operator shall determine whether new allowable ranges of baseline average values will be based upon the new performance test or (if the new performance test results are within the previously established range) whether there will be no change in the operating parameters derived from previous tests. When a source using the methodology of this paragraph is retested and the performance test results are submitted to the Administrator pursuant to §§63.627(c)(1), 63.7(g)(1), and/or 63.10(d)(2), the owner or operator will indicate whether the operating range will be based on the new performance test or the previously established range. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

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- (2) The owner or operator of any new or existing affected source shall establish, and provide to the Administrator for approval, allowable ranges for the daily averages of the pressure drop across and of the flow rate of the scrubbing liquid to each scrubber in the process scrubbing system for the purpose of assuring compliance with this subpart. Allowable ranges may be based upon baseline average values recorded during previous performance tests using the test methods required in §63.626(c)(4) or (d)(4). As an alternative, the owner or operator can establish the allowable ranges using the results of performance tests conducted specifically for the purposes of this paragraph using the test methods required in this subpart and established in the manner required in §63.626(c)(4) or (d)(4). The source shall certify that the control devices and processes have not been modified subsequent to the testing upon which the data used to establish the allowable ranges were obtained. The allowable ranges developed pursuant to the provisions of this paragraph must be submitted to the Administrator for approval. The owner or operator must request and obtain approval of the Administrator for changes to the allowable ranges. When a source using the methodology of this paragraph is retested, the owner or operator shall determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges. If the Administrator has not denied approval of the new operating ranges within 30 days of submission of the performance test results, the new ranges shall be deemed approved and the new baseline value shall then be effective on the 31st day following submission.

[64 FR 31382, June 10, 1999, as amended at 67 FR 65077, Dec. 17, 2001]

### § 63.626 Performance tests and compliance provisions.

(a)

- (1) On or before the applicable compliance date in §63.630 and once per annum thereafter, each owner or operator of a phosphate fertilizers production plant subject to the provisions of this subpart shall conduct a performance test to demonstrate compliance with the applicable emission standard for each existing diammonium and/or monoammonium phosphate process line, granular triple superphosphate process line, or granular triple superphosphate storage building. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.
- (2) As required by §63.7(a)(2) and once per annum thereafter, each owner or operator of a phosphate fertilizers production plant subject to the provisions of this subpart shall conduct a performance test to demonstrate compliance with the applicable emission standard for each new diammonium and/or monoammonium phosphate process line, granular triple superphosphate process line, or granular triple superphosphate storage building. The owner or operator shall conduct the performance test according to the procedures in subpart A of this part and in this section.
- (b) In conducting performance tests, each owner or operator of an affected source shall use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in §63.7(f).
- (c) Each owner or operator of a new or existing diammonium and/or monoammonium phosphate process line or granular triple superphosphate process line shall determine compliance with the applicable total fluorides standards in §63.622 or §63.623 as follows:

- (1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left( \sum_{i=1}^N C_{si} Q_{sdi} \right) (PK)$$

Where:

E = emission rate of total fluorides, g/metric ton (lb/ton) of equivalent P<sub>2</sub>O<sub>5</sub> feed.

C<sub>si</sub> = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).

Q<sub>sdi</sub> = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).

N = number of emission points associated with the affected facility.

P = equivalent P<sub>2</sub>O<sub>5</sub> feed rate, metric ton/hr (ton/hr).

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K = conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B (40 CFR part 60, appendix A) shall be used to determine the total fluorides concentration ( $C_{si}$ ) and volumetric flow rate ( $Q_{sdi}$ ) of the effluent gas from each of the emission points. If Method 13 B is used, the fusion of the filtered material described in section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in sections 7.3.3 and 7.3.4 in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least one hour and 0.85 dscm (30 dscf).

(3) The equivalent  $P_2O_5$  feed rate (P) shall be computed using the following equation:

$$P = M_p R_p$$

Where:

$M_p$  = total mass flow rate of phosphorus-bearing feed, metric ton/hr (ton/hr).

$R_p$  =  $P_2O_5$  content, decimal fraction.

(i) The accountability system described in §63.625(a) and (b) shall be used to determine the mass flow rate ( $M_p$ ) of the phosphorus-bearing feed.

(ii) The  $P_2O_5$  content ( $R_p$ ) of the feed shall be determined using as appropriate the following methods (incorporated by reference—see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, where applicable:

(A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.

(B) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus— $P_2O_5$  or  $Ca_3(PO_4)_2$ , Method A—Volumetric Method.

(C) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus- $P_2O_5$  or  $Ca_3(PO_4)_2$ , Method B—Gravimetric Quimociac Method.

(D) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus- $P_2O_5$  or  $Ca_3(PO_4)_2$ , Method C—Spectrophotometric Method.

(E) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus- $P_2O_5$ , Method A—Volumetric Method.

(F) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus- $P_2O_5$ , Method B—Gravimetric Quimociac Method.

(G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus- $P_2O_5$ , Method C—Spectrophotometric Method.

(4) To comply with §63.625(f)(1) or (2), the owner or operator shall use the monitoring systems in §63.625(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of §63.625(f)(1) or (2).

(d) Each owner or operator of a new or existing granular triple superphosphate storage building shall determine compliance with the applicable total fluorides standards in §63.622 or §63.623 as follows:

(1) The owner or operator shall conduct performance tests only when the following quantities of product are being cured or stored in the facility.

(i) Total granular triple superphosphate is at least 10 percent of the building capacity, and

(ii) Fresh granular triple superphosphate is at least six percent of the total amount of granular triple superphosphate, or

(iii) If the provision in paragraph (d)(1)(ii) of this section exceeds production capabilities for fresh granular triple superphosphate, fresh granular triple superphosphate is equal to at least 5 days maximum production.

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- (2) In conducting the performance test, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in §63.7(f).
- (3) The owner or operator shall determine compliance with the total fluorides standard in §§63.622 and 63.623 as follows:

(i) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left( \sum_{i=1}^N C_{si} Q_{sdi} \right) (PK)$$

Where:

E = emission rate of total fluorides, g/hr/metric ton (lb/hr/ton) of equivalent P<sub>2</sub>O<sub>5</sub> stored.

C<sub>si</sub> = concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).

Q<sub>sdi</sub> = volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).

N = number of emission points in the affected facility.

P = equivalent P<sub>2</sub>O<sub>5</sub> stored, metric tons (tons).

K = conversion factor, 1000 mg/g (453,600 mg/lb).

(ii) Method 13A or 13B (40 CFR part 60, appendix A) shall be used to determine the total fluorides concentration (C<sub>si</sub>) and volumetric flow rate (Q<sub>sdi</sub>) of the effluent gas from each of the emission points. If Method 13B is used, the fusion of the filtered material described in section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in Sections 7.3.3 and 7.3.4 in Method 13 A, may be omitted. The sampling time and sample volume for each run shall be at least one hour and 0.85 dscm (30 dscf).

(iii) The equivalent P<sub>2</sub>O<sub>5</sub> feed rate (P) shall be computed using the following equation:

$$P = M_p R_p$$

Where:

M<sub>p</sub> = amount of product in storage, metric ton (ton).

R<sub>p</sub> = P<sub>2</sub>O<sub>5</sub> content of product in storage, weight fraction.

(iv) The accountability system described in §63.625(d) and (e) shall be used to determine the amount of product (M<sub>p</sub>) in storage.

(v) The P<sub>2</sub>O<sub>5</sub> content (R<sub>p</sub>) of the product stored shall be determined using as appropriate the following methods (incorporated by reference—see 40 CFR 63.14) specified in the Book of Methods Used and Adopted By The Association Of Florida Phosphate Chemists, Seventh Edition 1991, where applicable:

(A) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus—P<sub>2</sub>O<sub>5</sub>, Method A—Volumetric Method.

(B) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus—P<sub>2</sub>O<sub>5</sub>, Method B—Gravimetric Quimociac Method.

(C) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus—P<sub>2</sub>O<sub>5</sub>, Method C—Spectrophotometric Method, or,

(vi) The P<sub>2</sub>O<sub>5</sub> content (R<sub>p</sub>) of the product stored shall be determined using as appropriate the following methods (incorporated by reference—see 40 CFR 63.14) specified in the Official Methods of Analysis of AOAC International, sixteenth Edition, 1995, where applicable:

(A) AOAC Official Method 957.02 Phosphorus (Total) In Fertilizers, Preparation of Sample Solution.

(B) AOAC Official Method 929.01 Sampling of Solid Fertilizers.

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- (C) AOAC Official Method 929.02 Preparation of Fertilizer Sample.
  - (D) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method.
  - (E) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method.
  - (F) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method.
  - (G) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method.
- (4) To comply with §63.625(f) (1) or (2), the owner or operator shall use the monitoring systems described in §63.625(c) to determine the average pressure loss of the gas stream across each scrubber in the process scrubbing system and to determine the average flow rate of the scrubber liquid to each scrubber in the process scrubbing system during each of the total fluoride runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of §63.625(f) (1) or (2).

### § 63.627 Notification, recordkeeping, and reporting requirements.

- (a) Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in §63.9.
- (b) Each owner or operator subject to the requirements of this subpart shall comply with the recordkeeping requirements in §63.10.
- (c) The owner or operator of an affected source shall comply with the reporting requirements specified in §63.10 as follows:
  - (1) *Performance test report.* As required by §63.10, the owner or operator shall report the results of the initial and annual performance tests as part of the notification of compliance status required in §63.9.
  - (2) *Excess emissions report.* As required by §63.10, the owner or operator of an affected source shall submit an excess emissions report for any exceedance of an operating parameter limit. The report shall contain the information specified in §63.10. When no exceedances of an operating parameter have occurred, such information shall be included in the report. The report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, the owner or operator shall report quarterly until a request to reduce reporting frequency is approved as described in §63.10.
  - (3) *Summary report.* If the total duration of control system exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, the owner or operator shall submit a summary report containing the information specified in §63.10 rather than the full excess emissions report, unless required by the Administrator. The summary report shall be submitted semiannually and shall be delivered or postmarked by the 30th day following the end of the calendar half.
  - (4) If the total duration of control system operating parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, the owner or operator shall submit a summary report and the excess emissions report.

### § 63.628 Applicability of general provisions.

The requirements of the general provisions in subpart A of this part that are applicable to the owner or operator subject to the requirements of this subpart are shown in appendix A to this subpart.

### § 63.629 Miscellaneous requirements.

The Administrator retains the authority to approve site-specific test plans for uncontrolled granular triple superphosphate storage buildings developed pursuant to §63.7(c)(2)(i).

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**§ 63.630 Compliance dates.**

- (a) Each owner or operator of an existing affected source at a phosphate fertilizers production plant shall achieve compliance with the requirements of this subpart no later than June 10, 2002. Notwithstanding the requirements of §63.7(a)(2)(iii), each owner or operator of an existing affected source at a phosphate fertilizers production plant shall fulfill the applicable requirements of §63.626 no later than June 10, 2002.
- (b) Each owner or operator of a phosphate fertilizers production plant that commences construction or reconstruction of an affected source after December 27, 1996 shall achieve compliance with the requirements of this subpart upon startup of operations or by June 10, 1999, whichever is later.
- (c) The owner or operator of any existing uncontrolled granular triple superphosphate storage building subject to the provisions of this subpart shall submit for approval by the Administrator a site-specific test plan for each such building according to the provisions of §63.7(b)(2)(i) no later than June 12, 2000.

**§ 63.631 Exemption from new source performance standards.**

Any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart V, subpart W, or subpart X. To be exempt, a source must have a current operating permit pursuant to Title V of the Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is effective upon the date that the owner or operator demonstrates to the Administrator that the requirements of §§63.624, 63.625 and 63.626 have been met.

**§ 63.632 Implementation and enforcement.**

- (a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.
- (c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.
  - (1) Approval of alternatives to the requirements in §§63.620, 63.622 through 63.624, and 63.629 through 63.631.
  - (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.
  - (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.
  - (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37351, June 23, 2003]

**Appendix A to Subpart BB of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart BB**

40 CFR citation	Requirement	Applies to subpart BB	Comment
63.1(a)(1) through (4)	General Applicability	Yes.	

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<b>40 CFR citation</b>	<b>Requirement</b>	<b>Applies to subpart BB</b>	<b>Comment</b>
63.1(a)(5)		No	[Reserved].
63.1(a)(6) through (8)		Yes.	
63.1(a)(9)		No	[Reserved].
63.1(a)(10) through (14)		Yes.	
63.1(b)	Initial Applicability Determination	Yes.	
63.1(c)(1)	Applicability After Standard Established	Yes.	
63.1(c)(2)		Yes	Some plants may be area sources.
63.1(c)(3)		No	[Reserved].
63.1(c)(4) and (5)		Yes	
63.1(d)		No	[Reserved].
63.1(e)	Applicability of Permit Program	Yes.	
63.2	Definitions	Yes	Additional definitions in §63.621.
63.3	Units and Abbreviations	Yes.	
63.4(a)(1) through (3)	Prohibited Activities	Yes.	
63.4(a)(4)		No	[Reserved].
63.4(a)(5)		Yes.	
63.4(b) and (c)	Circumvention/Severability	Yes.	
63.5(a)	Construction/Reconstruction Applicability	Yes.	
63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	
63.5(b)(2)		No	[Reserved].
63.5(b)(3) through (6)		Yes.	
63.5(c)		No	[Reserved].
63.5(d)	Application for Approval of Construction/Reconstruction	Yes.	
63.5(e)	Approval of Construction/Reconstruction	Yes.	
63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	
63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	
63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes	See also §63.629.

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<b>40 CFR citation</b>	<b>Requirement</b>	<b>Applies to subpart BB</b>	<b>Comment</b>
63.6(b)(6)		No	[Reserved].
63.6(b)(7)		Yes.	
63.6(c)(1)	Existing Sources Dates	Yes	§63.629 specifies dates.
63.6(c)(2)		Yes.	
63.6(c)(3) and (4)		No	[Reserved].
63.6(c)(5)		Yes.	
63.6(d)		No	[Reserved].
63.6(e)(1) and (2)	Operation & Maintenance Requirements	Yes	
63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	
63.6(f)	Compliance with Emission Standards	Yes	
63.6(g)	Alternative Standard	Yes.	
63.6(h)	Compliance with Opacity/VE Standards	No	Subpart BB does not include VE/opacity standards.
63.6(i)(1) through (14)	Extension of Compliance	Yes.	
63.6(i)(15)		No	[Reserved].
63.6(i)(16)		Yes.	
63.6(j)	Exemption from Compliance	Yes.	
63.7(a)	Performance Test Requirements Applicability	Yes	§63.629(a) applies rather than §63.7(a)(2)(iii).
63.7(b)	Notification	Yes.	
63.7(c)	Quality Assurance/Test Plan	Yes.	
63.7(d)	Testing Facilities	Yes.	
63.7(e)	Conduct of Tests	Yes	§§63.624 and 63.625 specify additional requirements.
63.7(f)	Alternative Test Method	Yes.	
63.7(g)	Data Analysis	Yes.	
63.7(h)	Waiver of Tests	Yes.	
63.8(a)(1)	Monitoring Requirements Applicability	Yes.	
63.8(a)(2)		No	Subpart BB does not require CMS performance specifications.
63.8(a)(3)		No	[Reserved].
63.8(a)(4)		Yes.	
63.8(b)	Conduct of Monitoring	Yes.	

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<b>40 CFR citation</b>	<b>Requirement</b>	<b>Applies to subpart BB</b>	<b>Comment</b>
63.8(c)(1) through (4)	CMS Operation/Maintenance	Yes.	
63.8(c)(5) through (8)		No	Subpart BB does not require COMS/CEMS or CMS performance specifications.
63.8(d)	Quality Control	Yes.	
63.8(e)	CMS Performance Evaluation	No	Subpart BB does not require CMS performance evaluations.
63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	
63.8(f)(6)	Alternative to RATA Test	No	Subpart BB does not require CEMS.
63.8(g)(1)	Data Reduction	Yes.	
63.8(g)(2)		No	Subpart BB does not require COMS or CEMS.
63.8(g)(3) through (5)		Yes.	
63.9(a)	Notification Requirements Applicability	Yes.	
63.9(b)	Initial Notifications	Yes.	
63.9(c)	Request for Compliance Extension	Yes.	
63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
63.9(f)	Notification of VE/Opacity Test	No	Subpart BB does not include VE/opacity standards.
63.9(g)	Additional CMS Notifications	No	Subpart BB does not require CMS performance evaluation, COMS, or CEMS.
63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	
63.9(h)(4)		No	[Reserved].
63.9(h)(5) and (6)		Yes.	
63.9(i)	Adjustment of Deadlines	Yes.	
63.9(j)	Change in Previous Information	Yes.	
63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	
63.10(b)	General Recordkeeping Requirements	Yes.	
63.10(c)(1)	Additional CMS Recordkeeping	Yes.	
63.10(c)(2) through (4)		No	[Reserved].
63.10(c)(5)		Yes.	

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<b>40 CFR citation</b>	<b>Requirement</b>	<b>Applies to subpart BB</b>	<b>Comment</b>
63.10(c)(6)		No	Subpart BB does not require CMS performance specifications.
63.10(c)(7) and (8)		Yes.	
63.10(c)(9)		No	[Reserved].
63.10(c)(10 ) through (13)		Yes.	
63.10(c)(14)		No	Subpart BB does not require a CMS quality control program.
63.10(c)(15)		Yes.	
63.10(d)(1)	General Reporting Requirements	Yes.	
63.10(d)(2)	Performance Test Results	Yes.	
63.10(d)(3)	Opacity or VE Observations	No	Subpart BB does not include VE/opacity standards.
63.10(d)(4) and (5)	Progress Reports/Startup, Shutdown, and Malfunction Reports	Yes.	
63.10(e)(1) and (2)	Additional CMS Reports	No	Subpart BB does not require CEMS or CMS performance evaluations.
63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes	§63.626(c)(2) includes additional requirements. A CMS performance report is not required.
63.10(e)(4)	COMS Data Reports	No	Subpart BB does not require COMS.
63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
63.11(a)	Control Device Requirements Applicability	Yes.	
63.11(b)	Flares	No	Flares not applicable.
63.12	State Authority and Delegations	Yes	Authority for approval of site-specific test plans for GTSP storage buildings is retained (see §63.628(a)).
63.13	Addresses	Yes.	
63.14	Incorporation by Reference	Yes.	
63.15	Information Availability/Confidentiality	Yes.	

[ 64 FR 31382, June 10, 1999, as amended at 67 FR 65078, Dec. 17, 2001]

### Federal Regulations Adopted by Reference

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

*Federal Revision Date: March 9, 2011*

*State Rule Effective Date: This version has not yet been adopted by the state*

*Southwest District Air Program Appendix Creation Date: May 20, 2011*

### 40 CFR Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

**Source:** 69 FR 33506, June 15, 2004, unless otherwise noted.

#### What This Subpart Covers

##### § 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

##### § 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
- (c) An area source of HAP emissions is a source that is not a major source.
- (d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.
- (e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

##### § 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

- (a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
  - (1) *Existing stationary RICE.*

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- (i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.
  - (ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
  - (iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
  - (iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.
- (2) *New stationary RICE.*
- (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
  - (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
  - (iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (3) *Reconstructed stationary RICE.*
- (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.
  - (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.
  - (iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.
- (b) *Stationary RICE subject to limited requirements.*
- (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).
    - (i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
    - (ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
  - (2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.
  - (3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:
    - (i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
    - (ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

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- (iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
  - (iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
  - (v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
  - (vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;
  - (vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or
  - (viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.
- (c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
- (1) A new or reconstructed stationary RICE located at an area source;
  - (2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
  - (3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
  - (4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
  - (5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
  - (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
  - (7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010]

### § 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.*

- (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.
- (2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

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- (3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
  - (4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
  - (5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
  - (6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
  - (7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.
- (1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.
  - (2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.
- (c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

### Emission and Operating Limitations

#### **§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and **Table 4** to this subpart.

- (a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in **Table 1a** to this subpart and the operating limitations in **Table 1b** to this subpart which apply to you.
- (b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in **Table 2a** to this subpart and the operating limitations in **Table 2b** to this subpart which apply to you.
- (c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in **Tables 1a, 2a, 2c, and 2d** to this subpart or operating limitations in **Tables 1b and 2b** to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

- (d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in **Table 2c** to this subpart and the operating limitations in **Table 2b** to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

**§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and **Table 4** to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in **Table 2a** to this subpart and the operating limitations in **Table 2b** to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

**§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in **Table 2c** to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and **Table 4** to this subpart.

[75 FR 51589, Aug. 20, 2010]

**§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and **Table 4** to this subpart.

- (a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in **Table 2d** to this subpart and the operating limitations in **Table 1b** and **Table 2b** to this subpart that apply to you.
- (b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in **Table 2d** to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in **Table 2d** to this subpart.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

**§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?**

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

[75 FR 51589, Aug. 20, 2010]

**General Compliance Requirements**

**§ 63.6605 What are my general requirements for complying with this subpart?**

- (a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.
- (b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010]

**Testing and Initial Compliance Requirements**

**§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

- (a) You must conduct the initial performance test or other initial compliance demonstrations in **Table 4** to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).
- (b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
- (c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
- (d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.
  - (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
  - (2) The test must not be older than 2 years.
  - (3) The test must be reviewed and accepted by the Administrator.
  - (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.
  - (5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

**§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?**

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in **Table 4** to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

**§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

- (a) You must conduct any initial performance test or other initial compliance demonstration according to **Tables 4 and 5** to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).
- (b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.
  - (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
  - (2) The test must not be older than 2 years.
  - (3) The test must be reviewed and accepted by the Administrator.
  - (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

**§ 63.6615 When must I conduct subsequent performance tests?**

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in **Table 3** of this subpart.

**§ 63.6620 What performance tests and other procedures must I use?**

- (a) You must conduct each performance test in **Tables 3 and 4** of this subpart that applies to you.
- (b) Each performance test must be conducted according to the requirements that this subpart specifies in **Table 4** to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.
- (c) [Reserved]
- (d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.
- (e)
  - (1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

$C_i$  = concentration of CO or formaldehyde at the control device inlet,

$C_o$  = concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

- (2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 percent oxygen and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

- (i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

$F_o$  = Fuel factor based on the ratio of oxygen volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

$F_c$  = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

- (ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

$X_{co_2}$  = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub> - 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

- (iii) Calculate the NO<sub>x</sub> and SO<sub>2</sub> gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration measured, dry basis, percent.

- (f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

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- (g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.
- (1) Identification of the specific parameters you propose to use as operating limitations;
  - (2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
  - (3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
  - (4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
  - (5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- (h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
- (1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally ( *e.g.*, operator adjustment, automatic controller adjustment, etc.) or unintentionally ( *e.g.*, wear and tear, error, etc.) on a routine basis or over time;
  - (2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
  - (3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
  - (4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
  - (5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
  - (6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
  - (7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.
- (i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

**§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?**

- (a) If you elect to install a CEMS as specified in **Table 5** of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO<sub>2</sub> at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.
- (1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

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- (2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
  - (3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.
  - (4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO<sub>2</sub> concentration.
- (b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (5) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.
- (1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.
    - (i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
    - (ii) Sampling interface ( *e.g.*, thermocouple) location such that the monitoring system will provide representative measurements;
    - (iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;
    - (iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and
    - (v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).
  - (2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.
  - (3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).
  - (4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
  - (5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.
  - (6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.
- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.
- (d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.
- (e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:
- (1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

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- (2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;
  - (3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;
  - (4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;
  - (5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;
  - (6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;
  - (7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
  - (8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
  - (9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and
  - (10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.
- (f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
- (g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.
- (1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
  - (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.
- (h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in **Tables 1a, 2a, 2c, and 2d** to this subpart apply.
- (i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of **Table 2c** to this subpart or in items 1 or 4 of **Table 2d** to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in **Tables 2c and 2d** to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in **Table 2c or 2d** to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

- (j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of **Table 2c** to this subpart or in items 5, 6, 7, 9, or 11 of **Table 2d** to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in **Tables 2c and 2d** to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in **Table 2c or 2d** to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

**§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?**

- (a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to **Table 5** of this subpart.
- (b) During the initial performance test, you must establish each operating limitation in **Tables 1b and 2b** of this subpart that applies to you.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

**Continuous Compliance Requirements**

**§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?**

- (a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- (b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

**§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?**

- (a) You must demonstrate continuous compliance with each emission limitation and operating limitation in **Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d** to this subpart that apply to you according to methods specified in Table 6 to this subpart.
- (b) You must report each instance in which you did not meet each emission limitation or operating limitation in **Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d** to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

- (c) [Reserved]
- (d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).
- (e) You must also report each instance in which you did not meet the requirements in **Table 8** to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in **Table 8** to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in **Table 8** to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.
- (f) *Requirements for emergency stationary RICE.*
  - (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
    - (i) There is no time limit on the use of emergency stationary RICE in emergency situations.
    - (ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
    - (iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

- (2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
- (i) There is no time limit on the use of emergency stationary RICE in emergency situations.
  - (ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.
  - (iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

### Notifications, Reports, and Records

#### § 63.6645 What notifications must I submit and when?

- (a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;
- (1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.
  - (2) An existing stationary RICE located at an area source of HAP emissions.
  - (3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
  - (4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.
  - (5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.
- (b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.
- (c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.
- (e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

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- (g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).
- (h) If you are required to conduct a performance test or other initial compliance demonstration as specified in **Tables 4 and 5** to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).
  - (1) For each initial compliance demonstration required in **Table 5** to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
  - (2) For each initial compliance demonstration required in **Table 5** to this subpart that includes a performance test conducted according to the requirements in **Table 3** to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

**§ 63.6650 What reports must I submit and when?**

- (a) You must submit each report in **Table 7** of this subpart that applies to you.
- (b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in **Table 7** of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
  - (1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
  - (2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
  - (3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
  - (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
  - (5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
  - (6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.
  - (7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.
  - (8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
  - (9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
- (c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.
  - (1) Company name and address.

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- (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
  - (3) Date of report and beginning and ending dates of the reporting period.
  - (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.
  - (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
  - (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
- (d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.
- (1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
  - (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.
- (1) The date and time that each malfunction started and stopped.
  - (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
  - (3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
  - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
  - (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
  - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
  - (7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
  - (8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
  - (9) A brief description of the stationary RICE.
  - (10) A brief description of the CMS.
  - (11) The date of the latest CMS certification or audit.
  - (12) A description of any changes in CMS, processes, or controls since the last reporting period.
- (f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to **Table 7** of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation

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in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

- (g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to **Table 7** of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.
- (1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.
  - (2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.
  - (3) Any problems or errors suspected with the meters.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

### § 63.6655 What records must I keep?

- (a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.
- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).
  - (2) Records of the occurrence and duration of each malfunction of operation ( *i.e.*, process equipment) or the air pollution control and monitoring equipment.
  - (3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
  - (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
  - (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.
- (1) Records described in §63.10(b)(2)(vi) through (xi).
  - (2) Previous ( *i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
  - (3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.
- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.
- (d) You must keep the records required in **Table 6** of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
- (e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
- (1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
  - (2) An existing stationary emergency RICE.
  - (3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in **Table 2d** to this subpart.

- (f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
- (1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.
  - (2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

**§ 63.6660 In what form and how long must I keep my records?**

- (a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

**Other Requirements and Information**

**§ 63.6665 What parts of the General Provisions apply to me?**

**Table 8** to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in **Table 8**: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in **Table 8** except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

**§ 63.6670 Who implements and enforces this subpart?**

- (a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
- (c) The authorities that will not be delegated to State, local, or tribal agencies are:
  - (1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

- (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
- (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
- (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.
- (5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

**§ 63.6675 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

*Area source* means any stationary source of HAP that is not a major source as defined in part 63.

*Associated equipment* as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

*Black start engine* means an engine whose only purpose is to start up a combustion turbine.

*CAA* means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101-549, 104 Stat. 2399).

*Commercial emergency stationary RICE* means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

*Compression ignition* means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

*Custody transfer* means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

*Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.
- (4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

*Diesel engine* means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties ( *e.g.* biodiesel) that is suitable for use in compression ignition engines.

*Digester gas* means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO<sub>2</sub>.

*Dual-fuel engine* means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

*Emergency stationary RICE* means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the

normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, *etc.* Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

*Engine startup* means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

*Four-stroke engine* means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

*Gaseous fuel* means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

*Gasoline* means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

*Glycol dehydration unit* means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

*Hazardous air pollutants (HAP)* means any air pollutants listed in or pursuant to section 112(b) of the CAA.

*Institutional emergency stationary RICE* means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

*ISO standard day conditions* means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

*Landfill gas* means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO<sub>2</sub>.

*Lean burn engine* means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

*Limited use stationary RICE* means any stationary RICE that operates less than 100 hours per year.

*Liquefied petroleum gas* means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

*Liquid fuel* means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

*Major Source*, as used in this subpart, shall have the same meaning as in §63.2, except that:

- (1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;
- (2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;
- (3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

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(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Natural gas* means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

*Non-selective catalytic reduction (NSCR)* means an add-on catalytic nitrogen oxides (NO<sub>x</sub>) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO<sub>x</sub>, CO, and volatile organic compounds (VOC) into CO<sub>2</sub>, nitrogen, and water.

*Oil and gas production facility* as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded ( *i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

*Oxidation catalyst* means an add-on catalytic control device that controls CO and VOC by oxidation.

*Peaking unit or engine* means any standby engine intended for use during periods of high demand that are not emergencies.

*Percent load* means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

*Potential to emit* means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

*Production field facility* means those oil and gas production facilities located prior to the point of custody transfer.

*Production well* means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

*Propane* means a colorless gas derived from petroleum and natural gas, with the molecular structure C<sub>3</sub>H<sub>8</sub>.

*Residential emergency stationary RICE* means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Rich burn engine* means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO<sub>x</sub> (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

*Site-rated HP* means the maximum manufacturer's design capacity at engine site conditions.

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*Spark ignition* means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

*Stationary reciprocating internal combustion engine (RICE)* means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

*Stationary RICE test cell/stand* means an engine test cell/stand, as defined in subpart P of this part, that tests stationary RICE.

*Stoichiometric* means the theoretical air-to-fuel ratio required for complete combustion.

*Storage vessel with the potential for flash emissions* means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

*Subpart* means 40 CFR part 63, subpart ZZZZ.

*Surface site* means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

*Two-stroke engine* means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011]

**Table 1a to Subpart ZZZZ of Part 63— Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

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**Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions and Existing Spark Ignition 4SRB Stationary RICE >500 HP Located at an Area Source of HAP Emissions**

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions and existing 4SRB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O <sub>2</sub> and using NSCR.	a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O <sub>2</sub> and not using NSCR.	Comply with any operating limitations approved by the Administrator.

[76 FR 12867, Mar. 9, 2011]

**Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O <sub>2</sub> . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O <sub>2</sub> until June	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>

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	15, 2007	
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O <sub>2</sub>	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

**Table 2b to Subpart ZZZZ of Part 63— Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing Compression Ignition Stationary RICE >500 HP, and Existing 4SLB Stationary RICE >500 HP Located at an Area Source of HAP Emissions**

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; existing compression ignition stationary RICE >500 HP; and existing 4SLB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. <sup>1</sup>
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst	Comply with any operating limitations approved by the Administrator.

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

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[75 FR 51593, Aug. 20, 2010, as amended at 76 FR 12867, Mar. 9, 2011]

**Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

<b>For each . . .</b>	<b>You must meet the following requirement, except during periods of startup . . .</b>	<b>During periods of startup you must . . .</b>
1. Emergency stationary CI RICE and black start stationary CI RICE. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>3</sup>
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O <sub>2</sub>	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O <sub>2</sub> ; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O <sub>2</sub> ; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start	a. Change oil and filter every 500 hours of operation or annually,	

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stationary SI RICE. <sup>1</sup>	whichever comes first; <sup>2</sup>	
	b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>2</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>2</sup>	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O <sub>2</sub>	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O <sub>2</sub>	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O <sub>2</sub>	
12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice

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should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

<sup>2</sup>Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

<sup>3</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 51593, Aug. 20, 2010]

**Table 2d to Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

<b>For each . . .</b>	<b>You must meet the following requirement, except during periods of startup . . .</b>	<b>During periods of startup you must . . .</b>
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; <sup>1</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE. <sup>2</sup>	a. Change oil and filter every 500 hours of operation	

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	or annually, whichever comes first; <sup>1</sup>	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

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8. Non-emergency, non-black start 4SLB stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 93 percent or more.	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP	a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce formaldehyde emissions by 76 percent or more.	
11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

<sup>1</sup>Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

<sup>2</sup>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the

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unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 51595, Aug. 20, 2010]

**Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests**

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must . . .</b>
1. New or reconstructed 2SLB stationary RICE with a brake horsepower >500 located at major sources; new or reconstructed 4SLB stationary RICE with a brake horsepower ≥250 located at major sources; and new or reconstructed CI stationary RICE with a brake horsepower >500 located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. <sup>1</sup>
2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. <sup>1</sup>
3. Stationary RICE with a brake horsepower >500 located at major sources and new or reconstructed 4SLB stationary RICE with a brake horsepower 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. <sup>1</sup>
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year and are limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 5 years, whichever comes first.

<sup>1</sup>After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 51596, Aug. 20, 2010]

**Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests**

As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

<b>For each . . .</b>	<b>Complying with the</b>	<b>You must . . .</b>	<b>Using . . .</b>	<b>According to the following requirements . . .</b>
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	requirement to . . .			
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Portable CO and O <sub>2</sub> analyzer	(a) Using ASTM D6522-00 (2005) <sup>a</sup> (incorporated by reference, see §63.14). Measurements to determine O <sub>2</sub> must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) Portable CO and O <sub>2</sub> analyzer	(a) Using ASTM D6522-00 (2005) <sup>ab</sup> (incorporated by reference, see §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O <sub>2</sub> , dry basis.
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00m (2005)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03, <sup>c</sup> provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (2005)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320	(a) Measurements to determine moisture content must be made at

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		stationary RICE exhaust at the sampling port location; and	of 40 CFR part 63, appendix A, or ASTM D 6348-03	the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03, <sup>c</sup> provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00 (2005), <sup>a</sup> Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03	(a) CO Concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour longer runs.

<sup>a</sup>You may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM-D6522-00 (2005) may be used to test both CI and SI stationary RICE.

<sup>b</sup>You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03.

<sup>c</sup>You may obtain a copy of ASTM-D6348-03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[75 FR 51597, Aug. 20, 2010]

**Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations**

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You have demonstrated initial compliance if . . .</b>
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-	a. Limit the concentration of CO,	i. The average CO concentration determined from the initial performance test is less than

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<p>emergency stationary CI RICE &gt;500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>using oxidation catalyst, and using a CPMS</p>	<p>or equal to the CO emission limitation; and                  ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and                  iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.</p>
<p>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>a. Reduce CO emissions and not using oxidation catalyst</p>	<p>i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and                  ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and                  iii. You have recorded the approved operating parameters (if any) during the initial performance test.</p>
<p>4. Non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>a. Limit the concentration of CO, and not using oxidation catalyst</p>	<p>i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and                  ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and                  iii. You have recorded the approved operating parameters (if any) during the initial performance test.</p>
<p>5. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>a. Reduce CO emissions, and using a CEMS</p>	<p>i. You have installed a CEMS to continuously monitor CO and either O<sub>2</sub> or CO<sub>2</sub> at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and                  ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and                  iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.</p>
<p>6. Non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>a. Limit the concentration of CO, and using a CEMS</p>	<p>i. You have installed a CEMS to continuously monitor CO and either O<sub>2</sub> or CO<sub>2</sub> at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and                  ii. You have conducted a performance evaluation of your CEMS using PS 3 and</p>

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		4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Limit the concentration of formaldehyde and not using NSCR	i. The average formaldehyde concentration determined from the initial performance test is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP,	a. Limit the concentration of formaldehyde in the stationary RICE exhaust	i. The average formaldehyde concentration, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and

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and existing non-emergency 4SRB stationary RICE >500 HP	and using oxidation catalyst or NSCR	ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
11. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO or formaldehyde emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
13. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[76 FR 12867, Mar. 9, 2011]

**Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices**

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must demonstrate continuous compliance by . . .</b>
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved; <sup>a</sup> and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages

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		within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved; <sup>a</sup> and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP, existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and

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		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP $\geq 5,000$ located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved. <sup>a</sup>
7. New or reconstructed non-emergency stationary RICE $>500$ HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; <sup>a</sup> and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE $>500$ HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; <sup>a</sup> and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE $\leq 500$ HP located at a major source of HAP, existing non-emergency stationary RICE $<100$ HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE $\leq 300$ HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

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<p>stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE &gt;500 HP located at an area source of HAP that operate 24 hours or less per calendar year</p>		
<p>10. Existing stationary CI RICE &gt;500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE &gt;500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE</p>	<p>a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using oxidation catalyst or NSCR</p>	<p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and</p>
		<p>ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and</p>
		<p>iii. Reducing these data to 4-hour rolling averages; and</p>
		<p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p>
		<p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>
<p>11. Existing stationary CI RICE &gt;500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE &gt;500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE</p>	<p>a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using oxidation catalyst or NSCR</p>	<p>i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and</p>
		<p>ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</p>
		<p>iii. Reducing these data to 4-hour rolling averages; and</p>
		<p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>
<p>12. Existing limited use CI stationary RICE &gt;500 HP and existing limited use 4SLB and 4SRB stationary RICE &gt;500 HP located at an area source of HAP that operate more than 24 hours per calendar year</p>	<p>a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust,</p>	<p>i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent</p>

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	and using an oxidation catalyst or NSCR	reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

<sup>a</sup>After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[76 FR 12870, Mar. 9, 2011]

**Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports**

As stated in §63.6650, you must comply with the following requirements for reports:

<b>For each ...</b>	<b>You must submit a ...</b>	<b>The report must contain ...</b>	<b>You must submit the report ...</b>
1. Existing non-emergency, non-black start stationary RICE $100 \leq \text{HP} \leq 500$	Compliance report	a. If there are no deviations from any emission limitations or operating	i. Semiannually according to the requirements in

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<p>located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE &gt;500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE &gt;300 HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE &gt;500 HP located at an area source of HAP and operated more than 24 hours per calendar year; new or reconstructed non-emergency stationary RICE &gt;500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP</p>		<p>limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or                  b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or                  c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4)</p>	<p>§63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and                  ii. Annually according to the requirements in §63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations.                  i. Semiannually according to the requirements in §63.6650(b).                  i. Semiannually according to the requirements in §63.6650(b).</p>
<p>2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis</p>	<p>Report</p>	<p>a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and</p>	<p>i. Annually, according to the requirements in §63.6650.</p>
		<p>b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and</p>	<p>i. See item 2.a.i.</p>
		<p>c. Any problems or errors suspected with the meters.</p>	<p>i. See item 2.a.i.</p>

[75 FR 51603, Aug. 20, 2010]

**Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.**

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	

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§63.6(a)	Applicability	Yes.	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other	Yes.	

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	testing under section 114 of the CAA		
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes.	
§63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at

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			§§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to	Yes	For CO standard if using RATA alternative.

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	RATA		
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010]

Engine Category	Date Constructed	Compliance Date	Emission Limitations	Operating Limitations	Fuel Requirements	Performance Tests	Monitoring, Installation, Collection, Operation and Maintenance Requirements	Initial Compliance	Continuous Compliance	Notification Requirements	Recordkeeping Requirements	Reporting Requirements	General Provisions (40 CFR part 63)
<b>Stationary RICE at Major Sources</b>													
<b>STEP 2(a)(i)</b>													
<b>Existing Stationary Engine &lt;500 HP Located at Major Source of HAP</b>													
Emergency CI	Before 6/12/2006	5/3/2013	63.6602 Table 2c	No Requirements	No Requirements	No Requirements	63.6625(e), (f), (h), (i)	No Requirements	63.6605 63.6640	No Requirements	63.6655 (except 63.6655(c))	Footnote 1 of Table 2c	Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).
Non-Emergency CI 100≤HP≤500	Before 6/12/2006	5/3/2013	63.6602 Table 2c	No Requirements	>300 HP with displacement <30 l/cyl: 63.6604	63.6612 63.6620 Table 4 Table 5	63.6625(h) ≥300 HP: 63.6625(g)	63.6630 Table 5	63.6605 63.6640	63.6645	63.6655 (except 63.6655(c), (e), and (f))	63.6650 (except 63.6650(g))	Yes
Non-Emergency CI <100 HP	Before 6/12/2006	5/3/2013	63.6602 Table 2c	No Requirements	No Requirements	No Requirements	63.6625 (e), (h), (i)	No Requirements	63.6605 63.6640	No Requirements	63.6655 (except 63.6655(c) and (f))	No Requirements	Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).
Emergency SI	Before 6/12/2006	10/19/2013	63.6602 Table 2c	No Requirements	No Requirements	No Requirements	63.6625(e), (f), (h), (j)	No Requirements	63.6605 63.6640	No Requirements	63.6655 (except 63.6655(c))	Footnote 1 of Table 2c	Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).
Non-Emergency SI 4SLB 100≤HP≤500	Before 6/12/2006	10/19/2013	63.6602 Table 2c	No Requirements	No Requirements	63.6612 63.6620 Table 4 Table 5	63.6625(h)	63.6630 Table 5	63.6605 63.6640	63.6645	63.6655 (except 63.6655(c), (e), and (f))	63.6650 (except 63.6650(g))	Yes
Non-Emergency SI 4SLB <100 HP	Before 6/12/2006	10/19/2013	63.6602 Table 2c	No Requirements	No Requirements	No Requirements	63.6625(e), (h), (j)	No Requirements	63.6605 63.6640	No Requirements	63.6655 (except 63.6655(c) and (f))	No Requirements	Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).
Non-Emergency SI 2SLB 100≤HP≤500	Before 6/12/2006	10/19/2013	63.6602 Table 2c	No Requirements	No Requirements	63.6612 63.6620 Table 4 Table 5	63.6625(h)	63.6630 Table 5	63.6605 63.6640	63.6645	63.6655 (except 63.6655(c), (e), and (f))	63.6650 (except 63.6650(g))	Yes
Non-Emergency SI 2SLB <100 HP	Before 6/12/2006	10/19/2013	63.6602 Table 2c	No Requirements	No Requirements	No Requirements	63.6625(e), (h), (j)	No Requirements	63.6605 63.6640	No Requirements	63.6655 (except 63.6655(c) and (f))	No Requirements	Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).
Non-Emergency SI 4SRB 100≤HP≤500	Before 6/12/2006	10/19/2013	63.6602 Table 2c	No Requirements	No Requirements	63.6612 63.6620 Table 4 Table 5	63.6625(h)	63.6630 Table 5	63.6605 63.6640	63.6645	63.6655 (except 63.6655(c), (e), and (f))	63.6650 (except 63.6650(g))	Yes
Non-Emergency SI 4SRB <100 HP	Before 6/12/2006	10/19/2013	63.6602 Table 2c	No Requirements	No Requirements	No Requirements	63.6625(e), (h), (j)	No Requirements	63.6605 63.6640	No Requirements	63.6655 (except 63.6655(c) and (f))	No Requirements	Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).
Non-Emergency Landfill/Digester Gas 100≤HP≤500	Before 6/12/2006	10/19/2013	63.6602 Table 2c	No Requirements	No Requirements	63.6612 63.6620 Table 4 Table 5	63.6625(h)	63.6630 Table 5	63.6605 63.6640	63.6645	63.6655 (except 63.6655(c), (e), and (f))	63.6650 (except 63.6650(g))	Yes
Non-Emergency Landfill/Digester Gas <100 HP	Before 6/12/2006	10/19/2013	63.6602 Table 2c	No Requirements	No Requirements	No Requirements	63.6625(e), (h), (j)	No Requirements	63.6605 63.6640	No Requirements	63.6655 (except 63.6655(c) and (f))	No Requirements	Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).

Engine Category	Date Constructed	Compliance Date	Emission Limitations	Operating Limitations	Fuel Requirements	Performance Tests	Monitoring, Installation, Collection, Operation and Maintenance Requirements	Initial Compliance	Continuous Compliance	Notification Requirements	Recordkeeping Requirements	Reporting Requirements	General Provisions (40 CFR part 63)
<b>STEP 2(a)(ii)</b>													
<b>Existing Stationary Engine &gt;500 HP Located at Major Source of HAP</b>													
Limited Use	Before 12/19/2002	No Requirements											
Emergency	Before 12/19/2002	These engines are subject to the requirements in 40 CFR 63.6640(f). No other requirements apply.											
Non-Emergency CI	Before 12/19/2002	5/3/2013	63.6600(d) Table 2c	63.6600(d) Table 2b	>300 HP and <30 l/cyl:63.6604	63.6610 63.6615 63.6620 Table 3 Table 4 Table 5	63.6625(a), (b), (g), (h), (k)	63.6630 Table 5	63.6605 63.6635 63.6640	63.6645	63.6655 (except 63.6655(c), (e), and (f))	63.6650 (except 63.6650(g))	Yes
Non-Emergency SI 4SLB	Before 12/19/2002	6/15/2007	No Requirements										
Non-Emergency SI 2SLB	Before 12/19/2002	6/15/2007	No Requirements										
Non-Emergency SI 4SRB	Before 12/19/2002	6/15/2007	63.6600(a) Table 1a	63.6600(a) Table 1b	No Requirements	63.6610 63.6615 63.6620 Table 3 Table 4 Table 5	63.6625(a), (b), (h), (k)	63.6630 Table 5	63.6605 63.6635 63.6640	63.6645	63.6655 (except 63.6655(c), (e), and (f))	63.6650 (except 63.6650 (g))	Yes
Landfill/Digester Gas	Before 12/19/2002	No Requirements											

<sup>a</sup>Note that certain engines covered under 40 CFR part 63, subpart ZZZZ, may be subject to additional requirements under 40 CFR part 60, subparts IIII and JJJJ.

<sup>b</sup>For assistance in determining the potential to emit, please refer to <http://www.epa.gov/ttn/chief/ap42/index.html> or contact your EPA regional office or state permitting staff. To determine the potential to emit, you may use emission factors from <http://www.epa.gov/ttn/chief/ap42/ch03/index.html>, test data, or other published information.

<sup>c</sup>Note emergency engines have to comply with the definition of an emergency stationary RICE, which includes being operated per the requirements in 40 CFR 63.6640(f).

Abbreviations:

CI-Compression Ignition  
SI-Spark Ignition  
4SLB-4 Stroke Lean Burn  
2SLB-2 Stroke Lean Burn  
4SRB-4 Stroke Rich Burn

**Federal Regulations Adopted by Reference**

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

*Federal Revision Date: January 28, 2009*

*State Rule Effective Date: November 18, 2009*

*Standardized Conditions Revision Date: February 5, 2010*

**Subpart A—General Provisions**

**§ 60.1 Applicability.**

- (a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

(d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia. {Not Applicable}*

[40 FR 53346, Nov. 17, 1975, as amended at 55 FR 51382, Dec. 13, 1990; 59 FR 12427, Mar. 16, 1994; 62 FR 52641, Oct. 8, 1997]

**§ 60.2 Definitions.**

The terms used in this part are defined in the Act or in this section as follows:

*Act* means the Clean Air Act (42 U.S.C. 7401 *et seq.* )

*Administrator* means the Administrator of the Environmental Protection Agency or his authorized representative.

*Affected facility* means, with reference to a stationary source, any apparatus to which a standard is applicable.

*Alternative method* means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

*Approved permit program* means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

*Capital expenditure* means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

*Clean coal technology demonstration project* means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

*Commenced* means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

## APPENDIX NSPS - 40 CFR 60, SUBPART A

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*Construction* means fabrication, erection, or installation of an affected facility.

*Continuous monitoring system* means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

*Electric utility steam generating unit* means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

*Equivalent method* means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

*Excess Emissions and Monitoring Systems Performance Report* is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

*Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

*Force majeure* means, for purposes of §60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

*Isokinetic sampling* means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

*Issuance* of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Modification* means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

*Monitoring device* means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

*Nitrogen oxides* means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

*One-hour period* means any 60-minute period commencing on the hour.

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

*Owner or operator* means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

*Part 70 permit* means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

*Particulate matter* means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

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*Permit program* means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

*Permitting authority* means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

*Proportional sampling* means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

*Reactivation of a very clean coal-fired electric utility steam generating unit* means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

- (1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;
- (2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;
- (3) Is equipped with low-NO<sub>x</sub> burners prior to the time of commencement of operations following reactivation; and
- (4) Is otherwise in compliance with the requirements of the Clean Air Act.

*Reference method* means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

*Repowering* means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

*Run* means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

*Shutdown* means the cessation of operation of an affected facility for any purpose.

*Six-minute period* means any one of the 10 equal parts of a one-hour period.

*Standard* means a standard of performance proposed or promulgated under this part.

*Standard conditions* means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

*Startup* means the setting in operation of an affected facility for any purpose.

*State* means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part; and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

*Stationary source* means any building, structure, facility, or installation which emits or may emit any air pollutant.

*Title V permit* means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

*Volatile Organic Compound* means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

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[44 FR 55173, Sept. 25, 1979, as amended at 45 FR 5617, Jan. 23, 1980; 45 FR 85415, Dec. 24, 1980; 54 FR 6662, Feb. 14, 1989; 55 FR 51382, Dec. 13, 1990; 57 FR 32338, July 21, 1992; 59 FR 12427, Mar. 16, 1994; 72 FR 27442, May 16, 2007]

### § 60.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A—ampere

g—gram

Hz—hertz

J—joule

K—degree Kelvin

kg—kilogram

m—meter

m<sup>3</sup>—cubic meter

mg—milligram—10<sup>-3</sup> gram

mm—millimeter—10<sup>-3</sup> meter

Mg—megagram—10<sup>6</sup> gram

mol—mole

N—newton

ng—nanogram—10<sup>-9</sup> gram

nm—nanometer—10<sup>-9</sup> meter

Pa—pascal

s—second

V—volt

W—watt

Ω—ohm

μg—microgram—10<sup>-6</sup> gram

(b) Other units of measure:

Btu—British thermal unit

°C—degree Celsius (centigrade)

cal—calorie

cfm—cubic feet per minute

cu ft—cubic feet

dcf—dry cubic feet

dcm—dry cubic meter

dscf—dry cubic feet at standard conditions

dscm—dry cubic meter at standard conditions

eq—equivalent

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°F—degree Fahrenheit

ft—feet

gal—gallon

gr—grain

g-eq—gram equivalent

hr—hour

in—inch

k—1,000

l—liter

lpm—liter per minute

lb—pound

meq—milliequivalent

min—minute

ml—milliliter

mol. wt.—molecular weight

ppb—parts per billion

ppm—parts per million

psia—pounds per square inch absolute

psig—pounds per square inch gage

°R—degree Rankine

scf—cubic feet at standard conditions

scfh—cubic feet per hour at standard conditions

scm—cubic meter at standard conditions

sec—second

sq ft—square feet

std—at standard conditions

(c) Chemical nomenclature:

CdS—cadmium sulfide

CO—carbon monoxide

CO<sub>2</sub>—carbon dioxide

HCl—hydrochloric acid

Hg—mercury

H<sub>2</sub>O—water

H<sub>2</sub>S—hydrogen sulfide

H<sub>2</sub>SO<sub>4</sub>—sulfuric acid

N<sub>2</sub>—nitrogen

NO—nitric oxide

NO<sub>2</sub>—nitrogen dioxide

NO<sub>x</sub>—nitrogen oxides

O<sub>2</sub>—oxygen

SO<sub>2</sub>—sulfur dioxide

SO<sub>3</sub>—sulfur trioxide

SO<sub>x</sub>—sulfur oxides

(d) Miscellaneous:

A.S.T.M.—American Society for Testing and Materials

[42 FR 37000, July 19, 1977; 42 FR 38178, July 27, 1977]

**§ 60.4 Address.**

**All addresses that pertain to Florida have been incorporated. To see the complete list of addresses please go to <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:6.0.1.1.1.1&idno=40>.**

[Link to an amendment published at 73 FR 18164, Apr. 3, 2008.](#)

- (a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 345 Courtland Street, NE., Atlanta, GA 30365.

- (b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

(K) Bureau of Air Quality Management, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, FL 32301.

[40 FR 18169, Apr. 25, 1975]

**Editorial Note:** For Federal Register citations affecting §60.4 see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

**§ 60.5 Determination of construction or modification.**

- (a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.
- (b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

[40 FR 58418, Dec. 16, 1975]

**§ 60.6 Review of plans.**

- (a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.
- (b)
- (1) A separate request shall be submitted for each construction or modification project.

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- (2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.
- (c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974]

### § 60.7 Notification and record keeping.

- (a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:
- (1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
  - (2) [Reserved]
  - (3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
  - (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
  - (5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than 30 days prior to such date.
  - (6) A notification of the anticipated date for conducting the opacity observations required by §60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
  - (7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data as allowed by §60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.
- (b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- (c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:
- (1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
  - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

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- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- (d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
  - (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted unless requested by the Administrator.
  - (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in §60.7(c) shall both be submitted.

Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO<sub>2</sub>/NO<sub>x</sub>/TRS/H<sub>2</sub>S/CO/Opacity)

Reporting period dates: From \_\_\_\_\_ to \_\_\_\_\_

Company: \_\_\_\_\_

Emission Limitation \_\_\_\_\_

Address: \_\_\_\_\_

Monitor Manufacturer and Model No. \_\_\_\_\_

Date of Latest CMS Certification or Audit \_\_\_\_\_

Process Unit(s) Description: \_\_\_\_\_

Total source operating time in reporting period<sup>1</sup> \_\_\_\_\_

Emission data summary <sup>1</sup>		CMS performance summary <sup>1</sup>	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	
d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) [Total source operating time]	% <sup>2</sup>	3. [Total CMS Downtime] × (100) [Total source operating time]	% <sup>2</sup>

<sup>1</sup>For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup>For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

\_\_\_\_\_

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Name

\_\_\_\_\_

Signature

\_\_\_\_\_

Title

\_\_\_\_\_

Date

(e)

- (1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:
    - (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
    - (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and
    - (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.
  - (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
  - (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.
- (f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:
- (1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all

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CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

- (2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.
  - (3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.
- (g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.
- (h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[36 FR 24877, Dec. 28, 1971, as amended at 40 FR 46254, Oct. 6, 1975; 40 FR 58418, Dec. 16, 1975; 45 FR 5617, Jan. 23, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 52 FR 9781, Mar. 26, 1987; 55 FR 51382, Dec. 13, 1990; 59 FR 12428, Mar. 16, 1994; 59 FR 47265, Sep. 15, 1994; 64 FR 7463, Feb. 12, 1999]

### § 60.8 Performance tests.

- (a) Except as specified in paragraphs (a)(1),(a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).
- (1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.
  - (2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.
  - (3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.
  - (4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.
- (b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the

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standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

- (c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
- (d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.
- (e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
  - (1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
  - (2) Safe sampling platform(s).
  - (3) Safe access to sampling platform(s).
  - (4) Utilities for sampling and testing equipment.
- (f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974; 42 FR 57126, Nov. 1, 1977; 44 FR 33612, June 11, 1979; 54 FR 6662, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 64 FR 7463, Feb. 12, 1999; 72 FR 27442, May 16, 2007]

### **§ 60.9 Availability of information.**

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§60.5 and 60.6 is governed by §§2.201 through 2.213 of this chapter and not by §2.301 of this chapter.)

### **§ 60.10 State authority.**

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

### **§ 60.11 Compliance with standards and maintenance requirements.**

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- (a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by §60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (e)
  - (1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in §60.8 unless one of the following conditions apply. If no performance test under §60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under §60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in §60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.
  - (2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under §60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.
  - (3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in §60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

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- (4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by §60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and §60.8 performance test results.
  - (5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under §60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under §60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under §60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under §60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under §60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in §60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.
  - (6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by §60.8, the opacity observation results and observer certification required by §60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by §60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with §60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.
  - (7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.
  - (8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.
- (f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.
- (g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[38 FR 28565, Oct. 15, 1973, as amended at 39 FR 39873, Nov. 12, 1974; 43 FR 8800, Mar. 3, 1978; 45 FR 23379, Apr. 4, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 51 FR 1790, Jan. 15, 1986; 52 FR 9781, Mar. 26, 1987; 62 FR 8328, Feb. 24, 1997; 65 FR 61749, Oct. 17, 2000]

### § 60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

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[39 FR 9314, Mar. 8, 1974]

**§ 60.13 Monitoring requirements.**

- (a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.
- (b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.
- (c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.
  - (1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.
  - (2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.
- (d)
  - (1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part, must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.
  - (2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.
- (e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
  - (1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

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- (2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
- (f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.
- (g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.
- (h)
- (1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.
- (2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:
- (i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.
- (ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.
- (iii) For any operating hour in which required maintenance or quality-assurance activities are performed:
- (A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or
- (B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.
- (iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.
- (v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.
- (vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.
- (vii) Owners and operators complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.
- (viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages ( *e.g.* hours with < 30 minutes of unit operation under §60.47b(d)).

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- (ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form ( *e.g.* , ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant).
- (3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.
- (i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:
- (1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.
  - (2) Alternative monitoring requirements when the affected facility is infrequently operated.
  - (3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.
  - (4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.
  - (5) Alternative methods of converting pollutant concentration measurements to units of the standards.
  - (6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.
  - (7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.
  - (8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.
  - (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.
- (j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:
- (1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in §60.8 of this subpart or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (*e.g.*, data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (*e.g.*, the applicable emission limit is more stringent than NSPS).
  - (2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have

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exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §60.45(g) (2) and (3), §60.73(e), and §60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

[40 FR 46255, Oct. 6, 1975; 40 FR 59205, Dec. 22, 1975, as amended at 41 FR 35185, Aug. 20, 1976; 48 FR 13326, Mar. 30, 1983; 48 FR 23610, May 25, 1983; 48 FR 32986, July 20, 1983; 52 FR 9782, Mar. 26, 1987; 52 FR 17555, May 11, 1987; 52 FR 21007, June 4, 1987; 64 FR 7463, Feb. 12, 1999; 65 FR 48920, Aug. 10, 2000; 65 FR 61749, Oct. 17, 2000; 66 FR 44980, Aug. 27, 2001; 71 FR 31102, June 1, 2006; 72 FR 32714, June 13, 2007]

**Editorial Note:** At 65 FR 61749, Oct. 17, 2000, §60.13 was amended by revising the words “ng/J of pollutant” to read “ng of pollutant per J of heat input” in the sixth sentence of paragraph (h). However, the amendment could not be incorporated because the words “ng/J of pollutant” do not exist in the sixth sentence of paragraph (h).

### § 60.14 Modification.

- (a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
- (b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:
  - (1) Emission factors as specified in the latest issue of “Compilation of Air Pollutant Emission Factors,” EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.
  - (2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.
- (c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.
- (d) [Reserved]
- (e) The following shall not, by themselves, be considered modifications under this part:
  - (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and §60.15.
  - (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
  - (3) An increase in the hours of operation.

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- (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by §60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
- (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.
- (6) The relocation or change in ownership of an existing facility.
- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.
- (h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.
- (i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.
- (j)
  - (1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.
  - (2) This exemption shall not apply to any new unit that:
    - (i) Is designated as a replacement for an existing unit;
    - (ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and
    - (iii) Is located at a different site than the existing unit.
- (k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A *temporary clean coal control technology demonstration project*, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.
- (l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

[40 FR 58419, Dec. 16, 1975, as amended at 43 FR 34347, Aug. 3, 1978; 45 FR 5617, Jan. 23, 1980; 57 FR 32339, July 21, 1992; 65 FR 61750, Oct. 17, 2000]

### § 60.15 Reconstruction.

- (a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.
- (b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

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- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
  - (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.
- (c) “Fixed capital cost” means the capital needed to provide all the depreciable components.
- (d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:
- (1) Name and address of the owner or operator.
  - (2) The location of the existing facility.
  - (3) A brief description of the existing facility and the components which are to be replaced.
  - (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
  - (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.
  - (6) The estimated life of the existing facility after the replacements.
  - (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.
- (e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.
- (f) The Administrator's determination under paragraph (e) shall be based on:
- (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
  - (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
  - (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
  - (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.
- (g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

[40 FR 58420, Dec. 16, 1975]

### § 60.16 Priority list.

A list of prioritized major source categories may be found at the following EPA web site:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:6.0.1.1.1.1&idno=40>

[47 FR 951, Jan. 8, 1982, as amended at 47 FR 31876, July 23, 1982; 51 FR 42796, Nov. 25, 1986; 52 FR 11428, Apr. 8, 1987; 61 FR 9919, Mar. 12, 1996]

### § 60.17 Incorporations by reference.

The materials listed below are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register on the date listed. These materials are incorporated as they exist on the date of the approval, and a notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding address noted below, and all are available for inspection at the Library (C267-01), U.S. EPA, Research Triangle Park, NC or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

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- (a) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.
- (1) ASTM A99-76, 82 (Reapproved 1987), Standard Specification for Ferromanganese, incorporation by reference (IBR) approved for §60.261.
  - (2) ASTM A100-69, 74, 93, Standard Specification for Ferrosilicon, IBR approved for §60.261.
  - (3) ASTM A101-73, 93, Standard Specification for Ferrochromium, IBR approved for §60.261.
  - (4) ASTM A482-76, 93, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.
  - (5) ASTM A483-64, 74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for §60.261.
  - (6) ASTM A495-76, 94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.
  - (7) ASTM D86-78, 82, 90, 93, 95, 96, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), and 60.633(h).
  - (8) ASTM D129-64, 78, 95, 00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, 12.5.2.2.3.
  - (9) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.4415(a)(1)(i).
  - (10) ASTM D240-76, 92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and Appendix A: Method 19, Section 12.5.2.2.3.
  - (11) ASTM D270-65, 75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.
  - (12) ASTM D323-82, 94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(l), 60.111a(g), 60.111b(g), and 60.116b(f)(2)(ii).
  - (13) ASTM D388-77, 90, 91, 95, 98a, 99 (Reapproved 2004)<sup>e1</sup>, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.24(h)(8), 60.41 of subpart D of this part, 60.45(f)(4)(i), 60.45(f)(4)(ii), 60.45(f)(4)(vi), 60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, and 60.4102.
  - (14) ASTM D388-77, 90, 91, 95, 98a, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.251(b) and (c) of subpart Y of this part.
  - (15) ASTM D396-78, 89, 90, 92, 96, 98, Standard Specification for Fuel Oils, IBR approved for §§60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, 60.111(b) of subpart K of this part, and 60.111a(b) of subpart Ka of this part.
  - (16) ASTM D975-78, 96, 98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) of subpart K of this part and 60.111a(b) of subpart Ka of this part.
  - (17) ASTM D1072-80, 90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b)(10)(ii).
  - (18) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.4415(a)(1)(ii).
  - (19) ASTM D1137-53, 75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f)(5)(i).
  - (20) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.

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- (21) ASTM D1266–87, 91, 98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).
- (22) ASTM D1266–98 (Reapproved 2003)e1, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §60.4415(a)(1)(i).
- (23) ASTM D1475–60 (Reapproved 1980), 90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d)(1), Appendix A: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- (24) ASTM D1552–83, 95, 01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, Section 12.5.2.2.3.
- (25) ASTM D1552–03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §60.4415(a)(1)(i).
- (26) ASTM D1826–77, 94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f)(5)(ii), 60.46(c)(2), 60.296(b)(3), and Appendix A: Method 19, Section 12.3.2.4.
- (27) ASTM D1835–87, 91, 97, 03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, and 60.41c of subpart Dc of this part.
- (28) ASTM D1945–64, 76, 91, 96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f)(5)(i).
- (29) ASTM D1946–77, 90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f)(3), 60.45(f)(5)(i), 60.564(f)(1), 60.614(e)(2)(ii), 60.614(e)(4), 60.664(e)(2)(ii), 60.664(e)(4), 60.704(d)(2)(ii), and 60.704(d)(4).
- (30) ASTM D2013–72, 86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (31) ASTM D2015–77 (Reapproved 1978), 96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.
- (32) ASTM D2016–74, 83, Standard Test Methods for Moisture Content of Wood, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (33) ASTM D2234–76, 96, 97b, 98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for Appendix A: Method 19, Section 12.5.2.1.1.
- (34) ASTM D2369–81, 87, 90, 92, 93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for Appendix A: Method 24, Section 6.2.
- (35) ASTM D2382–76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(e)(4), 60.664(e)(4), and 60.704(d)(4).
- (36) ASTM D2504–67, 77, 88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g)(5) and 60.485a(g)(5).
- (37) ASTM D2584–68 (Reapproved 1985), 94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c)(3)(i).
- (38) ASTM D2597–94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for §60.335(b)(9)(i).
- (39) ASTM D2622–87, 94, 98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).
- (40) ASTM D2622–05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).

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- (41) ASTM D2879–83, 96, 97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e)(3)(ii), 60.116b(f)(2)(i), 60.485(e)(1), and 60.485a(e)(1).
- (42) ASTM D2880–78, 96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).
- (43) ASTM D2908–74, 91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).
- (44) ASTM D2986–71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for Appendix A: Method 5, Section 7.1.1; Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (45) ASTM D3173–73, 87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (46) ASTM D3176–74, 89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and Appendix A: Method 19, Section 12.3.2.3.
- (47) ASTM D3177–75, 89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (48) ASTM D3178–73 (Reapproved 1979), 89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f)(5)(i).
- (49) ASTM D3246–81, 92, 96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b)(10)(ii).
- (50) ASTM D3246–05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.4415(a)(1)(ii).
- (51) ASTM D3270–73T, 80, 91, 95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for Appendix A: Method 13A, Section 16.1.
- (52) ASTM D3286–85, 96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (53) ASTM D3370–76, 95a, Standard Practices for Sampling Water, IBR approved for §60.564(j).
- (54) ASTM D3792–79, 91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.3.
- (55) ASTM D4017–81, 90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for Appendix A: Method 24, Section 6.4.
- (56) ASTM D4057–81, 95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.3.
- (57) ASTM D4057–95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).
- (58) ASTM D4084–82, 94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h)(1).
- (59) ASTM D4084–05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (60) ASTM D4177–95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.
- (61) ASTM D4177–95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).
- (62) ASTM D4239–85, 94, 97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.

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- (63) ASTM D4294–02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.335(b)(10)(i).
- (64) ASTM D4294–03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).
- (65) ASTM D4442–84, 92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (66) ASTM D4444–92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (67) ASTM D4457–85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1, 1, 1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.5.
- (68) ASTM D4468–85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§60.335(b)(10)(ii) and 60.4415(a)(1)(ii).
- (69) ASTM D4629–02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§60.49b(e) and 60.335(b)(9)(i).
- (70) ASTM D4809–95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(d)(4), 60.664(e)(4), and 60.704(d)(4).
- (71) ASTM D4810–88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (72) ASTM D5287–97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for §60.4415(a)(1).
- (73) ASTM D5403–93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for Appendix A: Method 24, Section 6.6.
- (74) ASTM D5453–00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(i).
- (75) ASTM D5453–05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(i).
- (76) ASTM D5504–01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§60.334(h)(1) and 60.4360.
- (77) ASTM D5762–02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for §60.335(b)(9)(i).
- (78) ASTM D5865–98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.
- (79) ASTM D6216–98, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, IBR approved for Appendix B, Performance Specification 1.
- (80) ASTM D6228–98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §60.334(h)(1).
- (81) ASTM D6228–98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§60.4360 and 60.4415.
- (82) ASTM D6348–03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, IBR approved for table 7 of Subpart IIII of this part and table 2 of subpart JJJJ of this part.

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- (83) ASTM D6366–99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for §60.335(b)(9)(i).
- (84) ASTM D6420–99 (Reapproved 2004) Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for table 2 of subpart JJJJ of this part.
- (85) ASTM D6522–00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for §60.335(a).
- (86) ASTM D6522–00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for table 2 of subpart JJJJ of this part.
- (87) ASTM D6667–01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(ii).
- (88) ASTM D6667–04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(ii).
- (89) ASTM D6784–02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for Appendix B to part 60, Performance Specification 12A, Section 8.6.2.
- (90) ASTM E168–67, 77, 92, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (91) ASTM E169–63, 77, 93, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (92) ASTM E260–73, 91, 96, General Gas Chromatography Procedures, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (b) The following material is available for purchase from the Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209.
  - (1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11–12, IBR approved January 27, 1983 for §§60.204(b)(3), 60.214(b)(3), 60.224(b)(3), 60.234(b)(3).
- (c) The following material is available for purchase from the American Petroleum Institute, 1220 L Street NW., Washington, DC 20005.
  - (1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved January 27, 1983, for §§60.111(i), 60.111a(f), 60.111a(f)(1) and 60.116b(e)(2)(i).
- (d) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), Dunwoody Park, Atlanta, GA 30341.
  - (1) TAPPI Method T624 os–68, IBR approved January 27, 1983 for §60.285(d)(3).
- (e) The following material is available for purchase from the Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.
  - (1) Method 209A, Total Residue Dried at 103–105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved February 25, 1985 for §60.683(b).
- (f) The following material is available for purchase from the following address: Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.
  - (1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance.
- (g) The following material is available for purchase from the following address: West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.

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- (1) West Coast Lumber Standard Grading Rules No. 16, pages 5–21 and 90 and 91, September 3, 1970, revised 1984.
- (h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.
- (1) ASME QRO–1–1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§60.56a, 60.54b(a), 60.54b(b), 60.1185(a), 60.1185(c)(2), 60.1675(a), and 60.1675(c)(2).
- (2) ASME PTC 4.1–1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§60.46b of subpart Db of this part, 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(3) and 60.1810(a)(3).
- (3) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(4), and 60.1810(a)(4).
- (4) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], IBR approved for Tables 1 and 3 of subpart EEEE, Tables 2 and 4 of subpart FFFF, Table 2 of subpart JJJJ, and §§60.4415(a)(2) and 60.4415(a)(3) of subpart KKKK of this part.
- (i) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846 Third Edition (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August, 1993), IIB (January 1995), and III (December 1996). This document may be obtained from the U.S. EPA, Office of Solid Waste and Emergency Response, Waste Characterization Branch, Washington, DC 20460, and is incorporated by reference for appendix A to part 60, Method 29, Sections 7.5.34; 9.2.1; 9.2.3; 10.2; 10.3; 11.1.1; 11.1.3; 13.2.1; 13.2.2; 13.3.1; and Table 29–3.
- (j) “Standard Methods for the Examination of Water and Wastewater,” 16th edition, 1985. Method 303F: “Determination of Mercury by the Cold Vapor Technique.” This document may be obtained from the American Public Health Association, 1015 18th Street, NW., Washington, DC 20036, and is incorporated by reference for appendix A to part 60, Method 29, Sections 9.2.3; 10.3; and 11.1.3.
- (k) This material is available for purchase from the American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675–2683. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A–91–61, Item IV–J–124), Room M–1500, 1200 Pennsylvania Ave., NW., Washington, DC.
- (1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0–87258–673–5. IBR approved for §60.35e and §60.55c.
- (l) This material is available for purchase from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A–91–61, Item IV–J–125), Room M–1500, 1200 Pennsylvania Ave., NW., Washington, DC.
- (1) OMB Bulletin No. 93–17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93–192–664. IBR approved for §60.31e.
- (m) This material is available for purchase from at least one of the following addresses: The Gas Processors Association, 6526 East 60th Street, Tulsa, OK, 74145; or Information Handling Services, 15 Inverness Way East, PO Box 1154, Englewood, CO 80150–1154. You may inspect a copy at EPA's Air and Radiation Docket and Information Center, Room B108, 1301 Constitution Ave., NW., Washington, DC 20460.
- (1) Gas Processors Association Method 2377–86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, IBR approved for §§60.334(h)(1), 60.4360, and 60.4415(a)(1)(ii).
- (2) [Reserved]
- (n) This material is available for purchase from IHS Inc., 15 Inverness Way East, Englewood, CO 80112.
- (1) International Organization for Standards 8178–4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—Part 4: Test Cycles for Different Engine Applications, IBR approved for §60.4241(b).
- (2) [Reserved]

[48 FR 3735, Jan. 27, 1983]

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**Editorial Note:** For Federal Register citations affecting §60.17, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

**§ 60.18 General control device and work practice requirements.**

(a) *Introduction.*

- (1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.
- (2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.

(b) *Flares.* Paragraphs (c) through (f) apply to flares.

(c)

- (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- (2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).
- (3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i)

- (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity,  $V_{max}$ , as determined by the following equation:

$$V_{max} = (X_{H2} - K_1) * K_2$$

Where:

$V_{max}$  = Maximum permitted velocity, m/sec.

$K_1$  = Constant, 6.0 volume-percent hydrogen.

$K_2$  = Constant, 3.9(m/sec)/volume-percent hydrogen.

$X_{H2}$  = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §60.17).

- (B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

- (ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)

- (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.
- (ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

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- (iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.
- (5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(6).
- (6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.
- (d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.
- (e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.
- (f)
  - (1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.
  - (2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
  - (3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

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where:

$H_T$  = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \text{Constant, } 1.740 \times 10^{-7} \left( \frac{1}{\text{ppm}} \right) \left( \frac{\text{g mole}}{\text{scm}} \right) \left( \frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for  $\left( \frac{\text{g mole}}{\text{scm}} \right)$  is 20°C;

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$C_i$  = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in §60.17); and

$H_i$  = Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

- (4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.
- (5) The maximum permitted velocity,  $V_{max}$ , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10}(V_{max}) = (H_T + 28.8) / 31.7$$

$V_{max}$  = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

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$H_T$  = The net heating value as determined in paragraph (f)(3).

- (6) The maximum permitted velocity,  $V_{max}$ , for air-assisted flares shall be determined by the following equation.

$$V_{max} = 8.706 + 0.7084 (H_T)$$

$V_{max}$  = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

$H_T$  = The net heating value as determined in paragraph (f)(3).

- (g) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, Appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, Appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.
- (1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.
- (2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, Appendix A-7, Method 21 monitor.
- (3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.
- (4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.
- (5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.
- (6) *Leak* means:
- (i) Any emissions imaged by the optical gas instrument;
  - (ii) Indications of liquids dripping;
  - (iii) Indications by a sensor that a seal or barrier fluid system has failed; or
  - (iv) Screening results using a 40 CFR part 60, Appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.
- (h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.
- (1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this section instead of using the 40 CFR part 60, Appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.
- (2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.
- (3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.

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- (4) The schedule for repair is as required in the applicable subpart.
- (5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.
- (6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:
  - (i) Skip period leak detection and repair;
  - (ii) Quality improvement plans; or
  - (iii) Complying with standards for allowable percentage of valves and pumps to leak.
- (7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.
- (i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.
  - (1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section.
    - (i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.
    - (ii) Provide a date and time stamp for video records of every monitoring event.
  - (2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.
    - (i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.
      - (A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.
      - (B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^n x_i$$

Where:

$E_{dic}$  = Mass flow rate for the daily instrument check, grams per hour

$x_i$  = Mass fraction of detectable chemical(s)  $i$  seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level,  $E_{sds}$ .

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$E_{sds}$  = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

$k$  = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

- (ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.
  - (iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.
  - (iv) Establish a mass flow rate by using the following procedures:
    - (A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.
    - (B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.
    - (C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.
  - (v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.
  - (vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §60.13(i).
- (3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.
- (4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:
- (i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.
  - (ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.
  - (iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.
  - (iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.
  - (v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.
  - (vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.
  - (vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the

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equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subpart.

- (5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to *CCG-AWP@EPA.GOV*.

[51 FR 2701, Jan. 21, 1986, as amended at 63 FR 24444, May 4, 1998; 65 FR 61752, Oct. 17, 2000; 73 FR 78209, Dec. 22, 2008]

### § 60.19 General notification and reporting requirements.

- (a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.
- (b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.
- (c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (f)
- (1)
- (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.
- (ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.
- (2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall

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request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

- (3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.
- (4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[59 FR 12428, Mar. 16, 1994, as amended at 64 FR 7463, Feb. 12, 1998]

**Table 1 to Subpart A to Part 60—Detection Sensitivity Levels (grams per hour)**

<b>Monitoring frequency per subpart<sup>a</sup></b>	<b>Detection sensitivity level</b>
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

<sup>a</sup>When this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

[73 FR 78211, Dec. 22, 2008]

**FEDERAL REGULATIONS ADOPTED BY REFERENCE**

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

*Federal Revision Date: January 20, 2011*

*Standardized Conditions Revision Date: May 20, 2011*

**40 CFR Part 60, Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

**Source:** 72 FR 32759, June 13, 2007, unless otherwise noted.

**§ 60.40c Applicability and delegation of authority.**

- (a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).
- (b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.
- (c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO<sub>2</sub>) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.
- (d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.
- (e) Heat recovery steam generators that are associated with combined cycle gas turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/hr) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).
- (f) Any facility covered by subpart AAAA of this part is not subject by this subpart.
- (g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject by this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

**§ 60.41c Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

*Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

*Coal refuse* means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

*Cogeneration steam generating unit* means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

*Combined cycle system* means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

*Combustion research* means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit ( *i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

*Conventional technology* means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

*Distillate oil* means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17) or diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see §60.17).

*Dry flue gas desulfurization technology* means a SO<sub>2</sub> control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

*Duct burner* means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

*Emerging technology* means any SO<sub>2</sub> control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

*Fluidized bed combustion technology* means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

*Fuel pretreatment* means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

*Heat input* means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

*Heat transfer medium* means any material that is used to transfer heat from one point to another point.

*Maximum design heat input capacity* means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

*Natural gas* means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

*Noncontinental area* means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

*Oil* means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

*Potential sulfur dioxide emission rate* means the theoretical SO<sub>2</sub> emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

*Process heater* means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

*Residual oil* means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

*Steam generating unit* means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

*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.

*Wet flue gas desulfurization technology* means an SO<sub>2</sub> control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

*Wet scrubber system* means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO<sub>2</sub>.

*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.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

**§ 60.42c Standard for sulfur dioxide (SO<sub>2</sub>).**

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

- (i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO<sub>2</sub> emission rate (80 percent reduction); nor
  - (ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO<sub>2</sub> emissions limit or the 90 percent SO<sub>2</sub> reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.
- (2) Combusts only coal and that uses an emerging technology for the control of SO<sub>2</sub> emissions shall neither:
- (i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 50 percent (0.50) of the potential SO<sub>2</sub> emission rate (50 percent reduction); nor
  - (ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO<sub>2</sub> reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.
- (c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).
- (1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/hr) or less.
  - (2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.
  - (3) Affected facilities located in a noncontinental area.
  - (4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.
- (d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.
- (e) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of the following:
- (1) The percent of potential SO<sub>2</sub> emission rate or numerical SO<sub>2</sub> emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that
    - (i) Combusts coal in combination with any other fuel;
    - (ii) Has a heat input capacity greater than 22 MW (75 MMBtu/hr); and
    - (iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and
  - (2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

$E_s$  = SO<sub>2</sub> emission limit, expressed in ng/J or lb/MMBtu heat input;

$K_a$  = 520 ng/J (1.2 lb/MMBtu);

$K_b$  = 260 ng/J (0.60 lb/MMBtu);

$K_c$  = 215 ng/J (0.50 lb/MMBtu);

$H_a$  = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

$H_b$  = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

$H_c$  = Heat input from the combustion of oil, in J (MMBtu).

- (f) Reduction in the potential SO<sub>2</sub> emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:
  - (1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO<sub>2</sub> emission rate; and
  - (2) Emissions from the pretreated fuel (without either combustion or post-combustion SO<sub>2</sub> control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.
- (g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.
- (h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.
  - (1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).
  - (2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).
  - (3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).
- (i) The SO<sub>2</sub> emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.
- (j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

**§ 60.43c Standard for particulate matter (PM).**

- (a) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:
  - (1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
  - (2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

- (b) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:
- (1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or
  - (2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.
- (c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that can combust coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph.
- (d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.
- (e)
- (1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.
  - (2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:
    - (i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and
    - (ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.
  - (3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.
  - (4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO<sub>2</sub> emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

**§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.**

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- (a) Except as provided in paragraphs (g) and (h) of this section and §60.8(b), performance tests required under §60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.
- (b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO<sub>2</sub> emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.
- (c) After the initial performance test required under paragraph (b) of this section and §60.8, compliance with the percent reduction requirements and SO<sub>2</sub> emission limits under §60.42c is based on the average percent reduction and the average SO<sub>2</sub> emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO<sub>2</sub> emission rate are calculated to show compliance with the standard.
- (d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO<sub>2</sub> emission rate (E<sub>ho</sub>) and the 30-day average SO<sub>2</sub> emission rate (E<sub>ao</sub>). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E<sub>ao</sub> when using daily fuel sampling or Method 6B of appendix A of this part.
- (e) If coal, oil, or coal and oil are combusted with other fuels:

- (1) An adjusted E<sub>ho</sub> (E<sub>ho</sub>o) is used in Equation 19-19 of Method 19 of appendix A of this part to compute the adjusted E<sub>ao</sub> (E<sub>ao</sub>o). The E<sub>ho</sub>o is computed using the following formula:

$$E_{ho\ o} = \frac{E_{ho} - E_w(1 - X_k)}{X_k}$$

Where:

E<sub>ho</sub>o = Adjusted E<sub>ho</sub>, ng/J (lb/MMBtu);

E<sub>ho</sub> = Hourly SO<sub>2</sub> emission rate, ng/J (lb/MMBtu);

E<sub>w</sub> = SO<sub>2</sub> concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E<sub>w</sub> for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E<sub>w</sub> if the owner or operator elects to assume E<sub>w</sub> = 0.

X<sub>k</sub> = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

- (2) The owner or operator of an affected facility that qualifies under the provisions of §60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters E<sub>w</sub> or X<sub>k</sub> if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.
- (f) Affected facilities subject to the percent reduction requirements under §60.42c(a) or (b) shall determine compliance with the SO<sub>2</sub> emission limits under §60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:
  - (1) If only coal is combusted, the percent of potential SO<sub>2</sub> emission rate is computed using the following formula:

$$\%P_s = 100 \left( 1 - \frac{\%R_g}{100} \right) \left( 1 - \frac{\%R_f}{100} \right)$$

Where:

%P<sub>s</sub> = Potential SO<sub>2</sub> emission rate, in percent;

$\%R_g$  = SO<sub>2</sub>removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$  = SO<sub>2</sub>removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

- (2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:
- (i) To compute the  $\%P_s$ , an adjusted  $\%R_g$  ( $\%R_{g,o}$ ) is computed from  $E_{a,o}$  from paragraph (e)(1) of this section and an adjusted average SO<sub>2</sub>inlet rate ( $E_{a,i,o}$ ) using the following formula:

$$\%R_{g,o} = 100 \left( 1 - \frac{E_{a,o}}{E_{a,i,o}} \right)$$

Where:

$\%R_{g,o}$  = Adjusted  $\%R_g$ , in percent;

$E_{a,o}$  = Adjusted  $E_{a,o}$ , ng/J (lb/MMBtu); and

$E_{a,i,o}$  = Adjusted average SO<sub>2</sub>inlet rate, ng/J (lb/MMBtu).

- (ii) To compute  $E_{a,i,o}$ , an adjusted hourly SO<sub>2</sub>inlet rate ( $E_{hi,o}$ ) is used. The  $E_{hi,o}$  is computed using the following formula:

$$E_{hi,o} = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

$E_{hi,o}$  = Adjusted  $E_{hi}$ , ng/J (lb/MMBtu);

$E_{hi}$  = Hourly SO<sub>2</sub>inlet rate, ng/J (lb/MMBtu);

$E_w$  = SO<sub>2</sub>concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value  $E_w$  for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure  $E_w$  if the owner or operator elects to assume  $E_w = 0$ ; and

$X_k$  = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

- (g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).
- (h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO<sub>2</sub>standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.
- (i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO<sub>2</sub>standards under §60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.
- (j) The owner or operator of an affected facility shall use all valid SO<sub>2</sub>emissions data in calculating  $\%P_s$  and  $E_{ho}$  under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under

§60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %P<sub>s</sub> or E<sub>ho</sub> pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

**§ 60.45c Compliance and performance test methods and procedures for particulate matter.**

- (a) The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.
  - (1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.
  - (2) Method 3A or 3B of appendix A–2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A–3 of this part or 17 of appendix A–6 of this part.
  - (3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:
    - (i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.
    - (ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.
    - (iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.
  - (4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.
  - (5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).
  - (6) For determination of PM emissions, an oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.
  - (7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:
    - (i) The O<sub>2</sub> or CO<sub>2</sub> measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and (iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.
  - (8) Method 9 of appendix A–4 of this part shall be used for determining the opacity of stack emissions.
- (b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under §60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.
- (c) In place of PM testing with Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

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- (1) Notify the Administrator 1 month before starting use of the system.
  - (2) Notify the Administrator 1 month before stopping use of the system.
  - (3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
  - (4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.
  - (5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.
  - (6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.
  - (7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.
    - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
    - (ii) [Reserved]
  - (8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.
  - (9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.
  - (10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.
  - (11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O<sub>2</sub> (or CO<sub>2</sub>) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.
    - (i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and
    - (ii) For O<sub>2</sub> (or CO<sub>2</sub>), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.
  - (12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.
  - (13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.
  - (14) After July 1, 2011, within 90 days after the date of completing each performance evaluation required by paragraph (c)(11) of this section, the owner or operator of the affected facility must either submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main> or mail a copy to: United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; Mail Code: D243-01; RTP, NC 27711.
- (d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/hr).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011]

**§ 60.46c Emission monitoring for sulfur dioxide.**

- (a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO<sub>2</sub> emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations at the outlet of the SO<sub>2</sub> control device (or the outlet of the steam generating unit if no SO<sub>2</sub> control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under §60.42c shall measure SO<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations at both the inlet and outlet of the SO<sub>2</sub> control device.
- (b) The 1-hour average SO<sub>2</sub> emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.42c. Each 1-hour average SO<sub>2</sub> emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under §60.13(h)(2). Hourly SO<sub>2</sub> emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.
- (c) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.
- (1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.
  - (2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.
  - (3) For affected facilities subject to the percent reduction requirements under §60.42c, the span value of the SO<sub>2</sub> CEMS at the inlet to the SO<sub>2</sub> control device shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted, and the span value of the SO<sub>2</sub> CEMS at the outlet from the SO<sub>2</sub> control device shall be 50 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted.
  - (4) For affected facilities that are not subject to the percent reduction requirements of §60.42c, the span value of the SO<sub>2</sub> CEMS at the outlet from the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub> emission rate of the fuel combusted.
- (d) As an alternative to operating a CEMS at the inlet to the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub> emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO<sub>2</sub> control device (or outlet of the steam generating unit if no SO<sub>2</sub> control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub> emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.
- (1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according to the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO<sub>2</sub> input rate.
  - (2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.
  - (3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO<sub>2</sub> at the inlet or outlet of the SO<sub>2</sub> control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO<sub>2</sub> and CO<sub>2</sub> measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement

techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

- (e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, as described under §60.48c(f), as applicable.
- (f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

**§ 60.47c Emission monitoring for particulate matter.**

- (a) Except as provided in paragraphs (c), (d), (e), (f), and (g) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in §60.43c(c) and that is not required to install a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to install a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.
  - (1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A-4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A-4 of this part performance test results.
    - (i) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted;
    - (ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted;
    - (iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted; or
    - (iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.
  - (2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A-7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.
    - (i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period ( *i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible

emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period ( *i.e.* , 90 seconds per 30 minute period) the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation ( *i.e.* , 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in §60.45c(a)(8).

- (ii) If no visible emissions are observed for 30 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.
- (3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.
- (b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.
- (c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures in §60.48c(f).
- (d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in §60.45c(c). The CEMS specified in paragraph §60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
- (e) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or
  - (1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.
    - (i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.
    - (ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).
    - (iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in §60.13(h)(2).
    - (iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

- (2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.
- (3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.
- (4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.
- (f) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that uses a bag leak detection system to monitor the performance of a fabric filter (baghouse) according to the most recent requirements in section §60.48Da of this part is not required to operate a COMS.
- (g) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the permitting authority is not required to operate a COMS. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan 20, 2011]

**§ 60.48c Reporting and recordkeeping requirements.**

- (a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:
  - (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
  - (2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.
  - (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.
  - (4) Notification if an emerging technology will be used for controlling SO<sub>2</sub> emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.
- (b) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.
- (c) In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.
  - (1) For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.
    - (i) Dates and time intervals of all opacity observation periods;

- (ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
- (iii) Copies of all visible emission observer opacity field data sheets;
- (2) For each performance test conducted using Method 22 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.
  - (i) Dates and time intervals of all visible emissions observation periods;
  - (ii) Name and affiliation for each visible emission observer participating in the performance test;
  - (iii) Copies of all visible emission observer opacity field data sheets; and
  - (iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.
- (3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator
- (d) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.
- (e) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.
  - (1) Calendar dates covered in the reporting period.
  - (2) Each 30-day average SO<sub>2</sub> emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.
  - (3) Each 30-day average percent of potential SO<sub>2</sub> emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.
  - (4) Identification of any steam generating unit operating days for which SO<sub>2</sub> or diluent (O<sub>2</sub> or CO<sub>2</sub>) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.
  - (5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.
  - (6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.
  - (7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.
  - (8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.
  - (9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.
  - (10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.
  - (11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.
- (f) Fuel supplier certification shall include the following information:
  - (1) For distillate oil:

- (i) The name of the oil supplier;
  - (ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and
  - (iii) The sulfur content or maximum sulfur content of the oil.
- (2) For residual oil:
- (i) The name of the oil supplier;
  - (ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
  - (iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and
  - (iv) The method used to determine the sulfur content of the oil.
- (3) For coal:
- (i) The name of the coal supplier;
  - (ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);
  - (iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and
  - (iv) The methods used to determine the properties of the coal.
- (4) For other fuels:
- (i) The name of the supplier of the fuel;
  - (ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and
  - (iii) The method used to determine the potential sulfur emissions rate of the fuel.
- (g)
- (1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.
  - (2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.
  - (3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.
- (h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

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- (i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.
- (j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

**APPENDIX NSPS – 40 CFR 60, SUBPART H**  
**Standards of Performance for Sulfuric Acid Plants**

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*Federal Register Revision Date: October 17, 2000*

*SWD Standardized Conditions Revision Date: May 20, 2011*

**Subpart H—Standards of Performance for Sulfuric Acid Plants**

**§ 60.80 Applicability and designation of affected facility.**

- (a) The provisions of this subpart are applicable to each sulfuric acid production unit, which is the affected facility.
- (b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977]

**§ 60.81 Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

- (a) *Sulfuric acid production unit* means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.
- (b) *Acid mist* means sulfuric acid mist, as measured by Method 8 of appendix A to this part or an equivalent or alternative method.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 20794, June 14, 1974]

**§ 60.82 Standard for sulfur dioxide.**

- (a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton), the production being expressed as 100 percent H<sub>2</sub>SO<sub>4</sub>.

[39 FR 20794, June 14, 1974]

**§ 60.83 Standard for acid mist.**

- (a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which:
  - (1) Contain acid mist, expressed as H<sub>2</sub>SO<sub>4</sub>, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per ton), the production being expressed as 100 percent H<sub>2</sub>SO<sub>4</sub>.
  - (2) Exhibit 10 percent opacity, or greater.

[39 FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975]

**APPENDIX NSPS – 40 CFR 60, SUBPART H**  
**Standards of Performance for Sulfuric Acid Plants**

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**§ 60.84 Emission monitoring.**

- (a) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under §60.13(d), shall be sulfur dioxide (SO<sub>2</sub>). Method 8 shall be used for conducting monitoring system performance evaluations under §60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of sulfur dioxide.
- (b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each eight-hour period as follows:

$$CF=k[(1.000-0.015r)/(r-s)]$$

where:

CF=conversion factor (kg/metric ton per ppm, lb/ton per ppm).

k=constant derived from material balance. For determining CF in metric units, k=0.0653. For determining CF in English units, k=0.1306.

r=percentage of sulfur dioxide by volume entering the gas converter. Appropriate corrections must be made for air injection plants subject to the Administrator's approval.

s=percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.

- (c) The owner or operator shall record all conversion factors and values under paragraph (b) of this section from which they were computed (i.e., CF, r, and s).
- (d) Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO<sub>2</sub> emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO<sub>2</sub>, O<sub>2</sub>, and CO<sub>2</sub> (if required) shall be installed, calibrated, maintained, and operated by the owner or operator and subjected to the certification procedures in Performance Specifications 2 and 3. The calibration procedure and span value for the SO<sub>2</sub> monitor shall be as specified in paragraph (b) of this section. The span value for CO<sub>2</sub> (if required) shall be 10 percent and for O<sub>2</sub> shall be 20.9 percent (air). A conversion factor based on process rate data is not necessary. Calculate the SO<sub>2</sub> emission rate as follows:

$$E_s=(C_s S)/[0.265-(0.126 \%O_2)-(A \%CO_2)]$$

where:

E<sub>s</sub>=emission rate of SO<sub>2</sub>, kg/metric ton (lb/ton) of 100 percent of H<sub>2</sub>SO<sub>4</sub> produced.

C<sub>s</sub>=concentration of SO<sub>2</sub>, kg/dscm (lb/dscf).

S=acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100 percent H<sub>2</sub>SO<sub>4</sub> produced.

%O<sub>2</sub>=oxygen concentration, percent dry basis.

A =auxiliary fuel factor,

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- =0.00 for no fuel.
- =0.0226 for methane.
- =0.0217 for natural gas.
- =0.0196 for propane.
- =0.0172 for No 2 oil.
- =0.0161 for No 6 oil.
- =0.0148 for coal.
- =0.0126 for coke.

%CO<sub>2</sub>= carbon dioxide concentration, percent dry basis.

Note: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From—	To—	Multiply by—
g/scm	kg/scm	10 <sup>-3</sup>
mg/scm	kg/scm	10 <sup>-6</sup>
ppm (SO <sub>2</sub> )	kg/scm	2.660×10 <sup>-6</sup>
ppm (SO <sub>2</sub> )	lb/scf	1.660×10 <sup>-7</sup>

- (e) For the purpose of reports under §60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under §60.82.

[39 FR 20794, June 14, 1974, as amended at 40 FR 46258, Oct. 6, 1975; 48 FR 23611, May 25, 1983; 48 FR 4700, Sept. 29, 1983; 48 FR 48669, Oct. 20, 1983; 54 FR 6666, Feb. 14, 1989; 65 FR 61753, Oct. 17, 2000]

**§ 60.85 Test methods and procedures.**

- (a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.
- (b) The owner or operator shall determine compliance with the SO<sub>2</sub> acid mist, and visible emission standards in §§ 60.82 and 60.83 as follows:
- (1) The emission rate (E) of acid mist or SO<sub>2</sub> shall be computed for each run using the following equation:

$$E=(CQsd)/(PK)$$

where:

- E = emission rate of acid mist or SO<sub>2</sub> kg/metric ton (lb/ton) of 100 percent H<sub>2</sub>SO<sub>4</sub> produced.
- C = concentration of acid mist or SO<sub>2</sub>, g/dscm (lb/dscf).

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Qsd = volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).

P = production rate of 100 percent H<sub>2</sub>SO<sub>4</sub>, metric ton/hr (ton/hr).

K = conversion factor, 1000 g/kg (1.0 lb/lb).

- (2) Method 8 shall be used to determine the acid mist and SO<sub>2</sub> concentrations (C's) and the volumetric flow rate (Qsd) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).
  - (3) Suitable methods shall be used to determine the production rate (P) of 100 percent H<sub>2</sub>SO<sub>4</sub> for each run. Material balance over the production system shall be used to confirm the production rate.
  - (4) Method 9 and the procedures in § 60.11 shall be used to determine opacity.
- (c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
- (1) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flowrate and production rate:
    - (i) The integrated technique of Method 3 is used to determine the O<sub>2</sub> concentration and, if required, CO<sub>2</sub> concentration.
    - (ii) The SO<sub>2</sub> or acid mist emission rate is calculated as described in § 60.84(d), substituting the acid mist concentration for Cs as appropriate.

[54 FR 6666, Feb. 14, 1989]

**APPENDIX RR**

**FACILITY-WIDE REPORTING REQUIREMENTS**

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**RR1. Reporting Schedule.** This table summarizes information for convenience purposes only. It does not supersede any of the terms or conditions of this permit.

<b>Report</b>	<b>Reporting Deadline(s)</b>	<b>Related Condition(s)</b>
Plant Problems/Permit Deviations	Immediately upon occurrence (See RR2.d.)	RR2, RR3
Malfunction Excess Emissions Report	Quarterly (if requested)	RR3
Semi-Annual Monitoring Report	Every 6 months	RR4
Annual Operating Report	April 1	RR5
Annual Emissions Fee Form and Fee	March 1	RR6
Annual Statement of Compliance	Within 60 days after the end of each calendar year (or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement); and  Within 60 days after submittal of a written agreement for transfer of responsibility, or  Within 60 days after permanent shutdown.	RR7
Notification of Administrative Permit Corrections	As needed	RR8
Notification of Startup after Shutdown for More than One Year	Minimum of 60 days prior to the intended startup date or, if emergency startup, as soon as possible after the startup date is ascertained	RR9
Permit Renewal Application	225 days prior to the expiration date of permit	TV17
Test Reports	Maximum 45 days following compliance tests	TR8

*{Permitting Note: See permit Section III. Emissions Units and Specific Conditions, for any additional Emission Unit-specific reporting requirements.}*

**RR2. Reports of Problems.**

- a. Plant Operation-Problems. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.
- b. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - (1) A description of and cause of noncompliance; and
  - (2) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
- c. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes

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aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

- d. "Immediately" shall mean the same day, if during a workday (i.e., 8:00 a.m. - 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of Rule 62-4.160(15) and 40 CFR 70.6(a)(3)(iii)(B), "promptly" or "prompt" shall have the same meaning as "immediately". [Rule 62-4.130, Rule 62-4.160(8), Rule 62-4.160(15), and Rule 62-213.440(1)(b), F.A.C.; 40 CFR 70.6(a)(3)(iii)(B)]

**RR3. Reports of Deviations from Permit Requirements.** The permittee shall report in accordance with the requirements of Rule 62-210.700(6), F.A.C. (below), and Rule 62-4.130, F.A.C. (condition RR2.), deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. *Rule 62-210.700(6):* In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. (See condition RR2.). A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rules 62-213.440(1)(b)3.b., and 62-210.700(6)F.A.C.]

**RR4. Semi-Annual Monitoring Reports.** The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. [Rule 62-213.440(1)(b)3.a., F.A.C.]

**RR5. Annual Operating Report.**

- a. The permittee shall submit to the Compliance Authority, each calendar year, on or before April 1, a completed DEP Form No 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year.
- b. Emissions shall be computed in accordance with the provisions of Rule 62-210.370(2), F.A.C. [Rules 62-210.370(2) & (3), and 62-213.440(3)(a)2., F.A.C.]

**RR6. Annual Emissions Fee Form and Fee.** Each Title V source permitted to operate in Florida must pay between January 15 and March 1 of each year, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.

- a. If the Department has not received the fee by February 15 of the year following the calendar year for which the fee is calculated, the Department will send the primary responsible official of the Title V source a written warning of the consequences for failing to pay the fee by March 1. If the fee is not postmarked by March 1 of the year due, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee unpaid plus interest on such amount computed in accordance with Section 220.807, F.S. If the Department determines that a submitted fee was inaccurately calculated, the Department shall either refund to the permittee any amount overpaid or notify the permittee of any amount underpaid. The Department shall not impose a penalty or interest on any amount underpaid, provided that the permittee has timely remitted payment of at least 90 percent of the amount determined to be due and remits full payment within 60 days after receipt of notice of the amount underpaid. The Department shall waive the collection of underpayment and shall not refund overpayment of the fee, if the amount is less than 1 percent of the fee due, up to \$50.00. The Department shall make every effort to provide a timely assessment of the adequacy of the submitted fee. Failure to pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.
- b. Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five (5) years and shall be made available to the Department upon request.
- c. A completed DEP Form 62-213.900(1), "Major Air Pollution Source Annual Emissions Fee Form", must be submitted by a responsible official with the annual emissions fee. [Rules 62-213.205(1), (1)(g), (1)(i) & (1)(j), F.A.C.]

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**RR7. Annual Statement of Compliance.**

- a. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit that includes all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C., using DEP Form No. 62-213.900(7). Such statement shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C., for Title V requirements and with Rule 62-214.350, F.A.C., for Acid Rain requirements. Such statements shall be submitted (postmarked) to the Department and EPA:
  - (1) Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and
  - (2) Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.
- b. In lieu of individually identifying all applicable requirements and specifying times of compliance with, non-compliance with, and deviation from each, the responsible official may use DEP Form No. 62-213.900(7) as such statement of compliance so long as the responsible official identifies all reportable deviations from and all instances of non-compliance with any applicable requirements and includes all information required by the federal regulation relating to each reportable deviation and instance of non-compliance.
- c. The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.  
[Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

**RR8. Notification of Administrative Permit Corrections.**

- a. A facility owner shall notify the Department by letter of minor corrections to information contained in a permit. Such notifications shall include:
  - (1) Typographical errors noted in the permit;
  - (2) Name, address or phone number change from that in the permit;
  - (3) A change requiring more frequent monitoring or reporting by the permittee;
  - (4) A change in ownership or operational control of a facility, subject to the following provisions:
    - (a) The Department determines that no other change in the permit is necessary;
    - (b) The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the Department has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and
    - (c) The new permittee has notified the Department of the effective date of sale or legal transfer.
  - (5) Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o;
  - (6) Changes listed at 40 CFR 72.83(a)(11) and (12), adopted and incorporated by reference at Rule 62-204.800, F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o, provided the notification is accompanied by a copy of any EPA determination concerning the similarity of the change to those listed at Rule 62-210.360(1)(e), F.A.C.; and
  - (7) Any other similar minor administrative change at the source.
- b. Upon receipt of any such notification, the Department shall within 60 days correct the permit and provide a corrected copy to the owner.
- c. After first notifying the owner, the Department shall correct any permit in which it discovers errors of the types listed at Rules 62-210.360(1)(a) and (b), F.A.C., and provide a corrected copy to the owner.

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**FACILITY-WIDE REPORTING REQUIREMENTS**  
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- d. For Title V source permits, other than general permits, a copy of the corrected permit shall be provided to EPA and any approved local air program in the county where the facility or any part of the facility is located.

[Rule 62-210.360, F.A.C.]

**RR9. Notification of Startup.** The owners or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the Department in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.

- a. The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.
- b. If, due to an emergency, a startup date is not known 60 days prior thereto, the owner shall notify the Department as soon as possible after the date of such startup is ascertained.

[Rule 62-210.300(5), F.A.C.]

**RR10. Report Submission.** The permittee shall submit all compliance related notifications and reports required of this permit to the Compliance Authority. {See front of permit for address and phone number.}

**RR11. EPA Report Submission.** Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to: Air, Pesticides & Toxics Management Division, United States Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street SW, Atlanta, GA 30303-8960. Phone: 404/562-9077.

**RR12. Acid Rain Report Submission.** Acid Rain Program Information shall be submitted, as necessary, to: Department of Environmental Protection, 2600 Blair Stone Road, Mail Station #5510, Tallahassee, Florida 32399-2400. Phone: 850/488-6140. Fax: 850/922-6979.

**RR13. Report Certification.** All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C. [Rule 62-213.440(1)(b)3.c, F.A.C.]

**RR14. Certification by Responsible Official (RO).** In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

**RR15. Confidential Information.** Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. Any permittee may claim confidentiality of any data or other information by complying with this procedure. [Rules 62-213.420(2), and 62-213.440(1)(d)6., F.A.C.]

**RR16. Forms and Instructions.** The forms used by the Department in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The forms are listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, by contacting the appropriate permitting authority or by accessing the Department's web site at: <http://www.dep.state.fl.us/air/rules/forms.htm>.

- a. Major Air Pollution Source Annual Emissions Fee Form (Effective 10/12/2008).
- b. Statement of Compliance Form (Effective 06/02/2002).
- c. Responsible Official Notification Form (Effective 06/02/2002).

[Rule 62-213.900, F.A.C.: Forms (1), (7) and (8)]

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**Sulfuric Acid Mist Emissions Prevention Plan**

Not federally enforceable

**CF Industries, Inc.  
Plant City Phosphate Complex  
“A” and “B” Sulfuric Acid Plants**

**Sulfuric Acid Mist Emissions Prevention Plan**

**Scope of Work**

Develop an “Acid Mist Control Preventive Maintenance Plan” for the CF Industries, Inc., Plant City Phosphate Complex “A” Sulfuric Acid Plant to insure mist emissions are maintained within allowable limits. U.S. EPA new source performance standards for sulfur burning sulfuric acid plants set sulfuric acid mist emission limits at 0.15 Lbs/Ton of sulfuric acid produced on a one hour average, and a maximum opacity of 10%. The Florida Department of Environmental Protection specified in the permit for this plant a sulfuric acid mist emission limit based on past performance, of 1.483 Lbs/Hr (0.027 Lbs/Ton) Maximum and 0.83 Lbs/Hr (0.015 Lbs/Ton) average or about 10% of the U.S. EPA level.

In Air Construction Permit Application No. 0570005-020-AC, CF Industries requested to also comply with this Sulfuric Acid Mist Emissions Prevention Plan for the “B” Sulfuric Acid Plant.

**Background**

Sulfuric acid is produced in the “A” and “B” Sulfuric Acid Plants using elemental sulfur as the raw material. The sulfur is oxidized (burned in a furnace) with dry air to produce sulfur dioxide. The sulfur dioxide is further oxidized (in the converter) to sulfur trioxide. The sulfur trioxide is absorbed (in the absorption tower) into concentrated (nominal 98.5%) sulfuric acid and reacted with free water contained in the acid to form sulfuric acid. The unconverted (residual) sulfur dioxide is removed from the gas to acceptable level in an ammonia-sulfur dioxide scrubbing tower where the sulfur dioxide is absorbed and reacted with ammonia and water to form an ammonium sulfite/bisulfite solution. The scrubbing system exit gas is slightly superheated and contains some ammonium sulfite/bisulfite particles and entrained solution. The gas then passes through high efficiency mist eliminators to remove ammonium sulfite/bisulfite particles and sulfuric acid mist before being released to atmosphere via the stack.

Upstream of the scrubber, sulfuric acid mist particles are formed in the absorption tower. Large particles, above three microns, are produced from entrainment of liquid droplets from the absorber packing surface. These particles are easily removed in the ammonia-sulfur dioxide scrubbing tower. Small sulfuric acid particles (sulfuric acid mist - less than one micron) are produced by the rapid cooling and condensation of sulfuric acid vapor at the inlet section of the absorption tower by a phenomenon known as “fog formation”. These mist particles will pass through the ammonia-sulfur dioxide scrubber relatively untouched and are removed in a Brownian Diffusion high efficiency mist eliminator.

**Operational Practices** - A number of operational practices can significantly reduce or eliminate generation of fine sulfuric acid mist particles in the absorption tower. The following maintenance procedure cover normal operating conditions but do not address startup conditions. Startup conditions are specified in Attachment A.

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**Sulfuric Acid Mist Emissions Prevention Plan**

**1. Drying Tower Operation**

Minimize the amount of water in the sulfuric trioxide gas stream entering the absorption tower by through drying of the inlet air to the plant, minimizing acid carryover from the drying tower (decomposes to water and sulfur trioxide on heating), and detecting steam/water leaks (from boilers, superheaters and economizers) into the gas stream.

- a. Drying Tower - Insure Good Drying - Maintain sulfuric acid flow at the proper level, acid concentration to the drying tower above 97.5%, and acid inlet temperature to the tower below 170 °F to minimize the water partial pressure above the acid (water vapor in the gas leaving the tower) monitor acid concentration, temperature, acid circulating pump current (amps), and acid flow to the drying and absorption towers by instruments.
- b. Drying Tower - Acid Carryover - Monitor the condition and performance of the drying tower entrainment separator to prevent sulfuric acid droplet carryover from the drying tower. Perform a stick test of the gas exit from the drying tower to monitor acid droplets in the gas stream on a regular basis - once per week minimum.
- c. Steam/Water Leaks - The economizer is the coldest area in the gas flow path ahead of the absorption tower, so any excessive water vapor in the gas will result in acid condensation in the economizer. Monitor gas side (casing) drains for condensed sulfuric acid on a regular basis - once per shift minimum. Acid condensate formation indicates excessive water vapor in the gas stream. When this occurs, further investigation to determine the source of the water entering the gas should follow. Check drying tower acid concentration, temperature and acid flow. Perform a stick test for acid droplet carryover from the drying tower. Check steam equipment for leaks - check gas side vestibule blowdowns for indications of moisture.

**2. Absorption Tower Operation**

Operate the absorption tower outside the fog formation region. Operate the absorption tower to maximize sulfur trioxide absorption by maintaining proper acid concentration, temperature and flow.

- a. Operate Outside Fog Formation Region - Fog formation is dependent on the concentrations of sulfur trioxide, water and sulfuric acid vapor in the gas stream and the partial pressure of sulfuric acid and water above the acid in the bottom, gas inlet area, of the absorption tower. Operate the plant at acid concentrations above 97.5% and at acid temperatures above 160 °F to reduce or eliminate fog formation. Monitor the acid concentration and temperature in the control room.
- b. Maximize Sulfur Trioxide Absorption - Maintain sulfur trioxide absorption by maintaining the proper acid flow and acid concentration (above 97.5%) to the absorption tower. Monitor the acid circulating pump current (amps), acid flow and concentration in the control room.

**3. High-Efficiency Mist Eliminator**

Maintain the water spray wash of high efficiency mist eliminator elements (water spray at the inlet to the mist eliminator vessel) to saturate the gas and prevent ammonium sulfite/bisulfite/sulfate solids build-up. Build-up

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**Sulfuric Acid Mist Emissions Prevention Plan**

could cause restriction (plugging) of the gas passages in the mist eliminator elements, increasing pressure drop and causing excessive particle emissions to the stack.

Water Spray High Efficiency Mist Eliminator - A low mist eliminator gas pressure drops insures wash spray is effectively saturating the gas and preventing solids build-up on the elements (solids build-up is a slow process). Monitor high-efficiency mist eliminator's fan discharge pressure and water flow to the mist eliminator in the control room. Water flow to the sprays is ensured by maintaining a level in the high-efficiency mist eliminator's basin and monitoring the pumped flow from the Brink's basin to the scrubber.

**4. Stack Opacity**

Monitor the integrity of the high efficiency mist eliminator system. Monitor stack appearance by visual operator inspection on a regular basis (once per shift minimum). High stack opacity may indicate a leak in one of the elements, element flange leak, element seal leg problem, or failure of the glass fiber bed in one or more elements. Optimize operational practices items 1-3 above to minimize mist entering the mist eliminator, until the plant can be shutdown and the mist eliminator problem repaired.

**Preventive Maintenance Practices** - Maintenance inspection and testing during the plants regular maintenance outage (turnaround) insures proper performance of the high efficiency mist eliminator system for the next operating period.

During the turnaround the plant is purged, cooled and inspected, and any required maintenance repairs or replacements are performed. All areas of the plant are inspected. Boilers are inspected and hydrostatically tested for water tightness; towers are inspected, including acid distribution, flow, acid cooling, and entrainment separators; acid pumps are inspected, rebuilt, or in many cases, replaced with a spare; instruments are inspected and calibrated; etc. The high efficiency mist eliminator system is inspected and elements repaired or replaced as required.

Preventive maintenance tasks to be accomplished during the turnaround are as follows:

1. Inspect High Efficiency Mist Eliminator System - Inspection should include visual inspection of the elements, element to tubesheet flange connections, seal legs, and the inlet water spray system.
  - a. Visually inspect each mist eliminator vessel and each element for unusual flow area, bulges in the element glass, loose flanges, flanges missing bolts or nuts, element wire failure, etc.
  - b. Start inlet water spray and check the spray pattern and flow.
  - c. Visually inspect element seal legs for damage.
2. Test System - Perform leak check of Element System - Use high intensity light in each element or use smoke generator (smoke bomb) to detect leaks in the mist eliminator system. Tighten flanges, repair seal legs, repair or replace any leaking or plugged elements as indicated and required.

**APPENDIX TR**  
**FACILITY-WIDE TESTING REQUIREMENTS**  
(Version Dated 9/12/2008)

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Unless otherwise specified in the permit, the following testing requirements apply to each emissions unit for which testing is required. The terms “stack” and “duct” are used interchangeably in this appendix.

**TR1. Required Number of Test Runs.** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

**TR2. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]

**TR3. Calculation of Emission Rate.** For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

**TR4. Applicable Test Procedures.**

a. *Required Sampling Time.*

- (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
- (2) **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - (c) The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an

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- applicable opacity standard shall be twelve minutes.
- b. *Minimum Sample Volume.* Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - c. *Required Flow Rate Range.* For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
  - d. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

<b>TABLE 297.310-1 CALIBRATION SCHEDULE</b>			
<b>ITEM</b>	<b>MINIMUM CALIBRATION FREQUENCY</b>	<b>REFERENCE INSTRUMENT</b>	<b>TOLERANCE</b>
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass	5° F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5° F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/- 0.001" mean of at least three readings; Max. deviation between readings, 0.004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, when 5% change observed, annually	Spirometer or calibrated wet test or dry gas test meter	2%
	2. One Point: Semiannually		
	3. Check after each test series	Comparison check	5%

- e. *Allowed Modification to EPA Method 5.* When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

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**TR5.** Determination of Process Variables.

- a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

**TR6.** Sampling Facilities. Permittees that are required to sample mass emissions from point sources shall install stack sampling ports and provide sampling facilities that meet the requirements of this condition. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

- a. *Permanent Test Facilities.* The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
- b. *Temporary Test Facilities.* The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.
- c. *Sampling Ports.*
  - (1) All sampling ports shall have a minimum inside diameter of 3 inches.
  - (2) The ports shall be capable of being sealed when not in use.
  - (3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
  - (4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
  - (5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
- d. *Work Platforms.*
  - (1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
  - (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
  - (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees

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- around the stack.
- (4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.
- e. *Access to Work Platform.*
- (1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
- (2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.
- f. *Electrical Power.*
- (1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
- (2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.
- g. *Sampling Equipment Support.*
- (1) A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
- (a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
- (b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
- (c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
- (2) A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.
- (3) When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

**TR7. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

- a. *General Compliance Testing.*
- (1) The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
- (2) For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
- (3) The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct

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an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- (a) Did not operate; or
  - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
- (4) During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- (a) Visible emissions, if there is an applicable standard;
  - (b) Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
  - (c) Each NESHAP pollutant, if there is an applicable emission standard.
- (5) An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
- (6) For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
- (7) For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
- (8) Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
- (9) The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (10) An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.
- b. *Special Compliance Tests.* When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- c. *Waiver of Compliance Test Requirements.* If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a

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bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.]

**TR8. Test Reports.**

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- b. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- c. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information.
  - (1) The type, location, and designation of the emissions unit tested.
  - (2) The facility at which the emissions unit is located.
  - (3) The owner or operator of the emissions unit.
  - (4) The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - (5) The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  - (6) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  - (7) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  - (8) The date, starting time and duration of each sampling run.
  - (9) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  - (10) The number of points sampled and configuration and location of the sampling plane.
  - (11) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  - (12) The type, manufacturer and configuration of the sampling equipment used.
  - (13) Data related to the required calibration of the test equipment.
  - (14) Data on the identification, processing and weights of all filters used.
  - (15) Data on the types and amounts of any chemical solutions used.
  - (16) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  - (17) The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  - (18) All measured and calculated data required to be determined by each applicable test procedure for each run.
  - (19) The detailed calculations for one run that relate the collected data to the calculated emission rate.
  - (20) The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
  - (21) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who

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conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

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**Operation**

- TV1. General Prohibition.** A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit. [Rule 62-4.030, Florida Administrative Code (F.A.C.)]
- TV2. Validity.** This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department. [Rule 62-4.160(2), F.A.C.]
- TV3. Proper Operation and Maintenance.** The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules. [Rule 62-4.160(6), F.A.C.]
- TV4. Not Federally Enforceable. Health, Safety and Welfare.** To ensure protection of public health, safety, and welfare, any construction, modification, or operation of an installation which may be a source of pollution, shall be in accordance with sound professional engineering practices pursuant to Chapter 471, F.S. [Rule 62-4.050(3), F.A.C.]
- TV5. Continued Operation.** An applicant making timely and complete application for permit, or for permit renewal, shall continue to operate the source under the authority and provisions of any existing valid permit or Florida Electrical Power Plant Siting Certification, and in accordance with applicable requirements of the Acid Rain Program and applicable requirements of the CAIR Program, until the conclusion of proceedings associated with its permit application or until the new permit becomes effective, whichever is later, provided the applicant complies with all the provisions of subparagraphs 62-213.420(1)(b)3., F.A.C. [Rules 62-213.420(1)(b)2., F.A.C.]
- TV6. Changes Without Permit Revision.** Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation:
- a. Permitted sources may change among those alternative methods of operation allowed by the source's permit as provided by the terms of the permit;
  - b. A permitted source may implement operating changes, as defined in Rule 62-210.200, F.A.C., after the source submits any forms required by any applicable requirement and provides the Department and EPA with at least 7 days written notice prior to implementation. The source and the Department shall attach each notice to the relevant permit;
    - (1) The written notice shall include the date on which the change will occur, and a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change;
    - (2) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes;
  - c. Permitted sources may implement changes involving modes of operation only in accordance with Rule 62-213.415, F.A.C.
- [Rule 62-213.410, F.A.C.]
- TV7. Circumvention.** No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

**Compliance**

- TV8. Compliance with Chapter 403, F.S., and Department Rules.** Except as provided at Rule 62-213.460, Permit Shield, F.A.C., the issuance of a permit does not relieve any person from complying with the requirements of Chapter 403, F.S., or Department rules. [Rule 62-4.070(7), F.A.C.]

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- TV9.** Compliance with Federal, State and Local Rules. Except as provided at Rule 62-213.460, F.A.C., issuance of a permit does not relieve the owner or operator of a facility or an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]
- TV10.** Binding and enforceable. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions. [Rule 62-4.160(1), F.A.C.]
- TV11.** Timely information. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly. [Rule 62-4.160(15), F.A.C.]
- TV12.** Halting or reduction of source activity. It shall not be a defense for a permittee in an enforcement action that maintaining compliance with any permit condition would necessitate halting of or reduction of the source activity. [Rule 62-213.440(1)(d)3., F.A.C.]
- TV13.** Final permit action. Any Title V source shall comply with all the terms and conditions of the existing permit until the Department has taken final action on any permit renewal or any requested permit revision, except as provided at Rule 62-213.412(2), F.A.C. [Rule 62-213.440(1)(d)4., F.A.C.]
- TV14.** Sudden and unforeseeable events beyond the control of the source. A situation arising from sudden and unforeseeable events beyond the control of the source which causes an exceedance of a technology-based emissions limitation because of unavoidable increases in emissions attributable to the situation and which requires immediate corrective action to restore normal operation, shall be an affirmative defense to an enforcement action in accordance with the provisions and requirements of 40 CFR 70.6(g)(2) and (3), hereby adopted and incorporated by reference. [Rule 62-213.440(1)(d)5., F.A.C.]
- TV15.** Permit Shield. Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in this condition or in any permit shall alter or affect the ability of EPA or the Department to deal with an emergency, the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program or the CAIR Program. [Rule 62-213.460, F.A.C.]
- TV16.** Compliance With Federal Rules. A facility or emissions unit subject to any standard or requirement of 40 CFR, Part 60, 61, 63 or 65, adopted and incorporated by reference at Rule 62-204.800, F.A.C., shall comply with such standard or requirement. Nothing in this chapter shall relieve a facility or emissions unit from complying with such standard or requirement, provided, however, that where a facility or emissions unit is subject to a standard established in Rule 62-296, F.A.C., such standard shall also apply. [Rule 62-296.100(3), F.A.C.]

**Permit Procedures**

- TV17.** Permit Revision Procedures. The permittee shall revise its permit as required by Rules 62-213.400, 62-213.412, 62-213.420, 62-213.430 & 62-4.080, F.A.C.; and, in addition, the Department shall revise permits as provided in Rule 62-4.080, F.A.C. & 40 CFR 70.7(f).
- TV18.** Permit Renewal. The permittee shall renew its permit as required by Rules 62-4.090, 62.213.420(1) and 62-213.430(3), F.A.C. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information

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identified in Rules 62-210.900(1) [Application for Air Permit - Long Form], 62-213.420(3) [Required Information], 62-213.420(6) [CAIR Part Form], F.A.C. Unless a Title V source submits a timely and complete application for permit renewal in accordance with the requirements this rule, the existing permit shall expire and the source's right to operate shall terminate. For purposes of a permit renewal, a timely application is one that is submitted 225 days before the expiration of a permit that expires on or after June 1, 2009. No Title V permit will be issued for a new term except through the renewal process. [Rules 62-213.420 & 62-213.430, F.A.C.]

**TV19. Insignificant Emissions Units or Pollutant-Emitting Activities.** The permittee shall identify and evaluate insignificant emissions units and activities as set forth in Rule 62-213.430(6), F.A.C.

**TV20. Savings Clause.** If any portion of the final permit is invalidated, the remainder of the permit shall remain in effect. [Rule 62-213.440(1)(d)1., F.A.C.]

**TV21. Suspension and Revocation.**

- a. Permits shall be effective until suspended, revoked, surrendered, or expired and shall be subject to the provisions of Chapter 403, F.S., and rules of the Department.
- b. Failure to comply with pollution control laws and rules shall be grounds for suspension or revocation.
- c. A permit issued pursuant to Chapter 62-4, F.A.C., shall not become a vested property right in the permittee. The Department may revoke any permit issued by it if it finds that the permit holder or his agent:
  - (1) Submitted false or inaccurate information in his application or operational reports.
  - (2) Has violated law, Department orders, rules or permit conditions.
  - (3) Has failed to submit operational reports or other information required by Department rules.
  - (4) Has refused lawful inspection under Section 403.091, F.S.
- d. No revocation shall become effective except after notice is served by personal services, certified mail, or newspaper notice pursuant to Section 120.60(5), F.S., upon the person or persons named therein and a hearing held if requested within the time specified in the notice. The notice shall specify the provision of the law, or rule alleged to be violated, or the permit condition or Department order alleged to be violated, and the facts alleged to constitute a violation thereof.

[Rule 62-4.100, F.A.C.]

**TV22. Not federally enforceable. Financial Responsibility.** The Department may require an applicant to submit proof of financial responsibility and may require the applicant to post an appropriate bond to guarantee compliance with the law and Department rules. [Rule 62-4.110, F.A.C.]

**TV23. Emissions Unit Reclassification.**

- a. Any emissions unit whose operation permit has been revoked as provided for in Chapter 62-4, F.A.C., shall be deemed permanently shut down for purposes of Rule 62-212.500, F.A.C. Any emissions unit whose permit to operate has expired without timely renewal or transfer may be deemed permanently shut down, provided, however, that no such emissions unit shall be deemed permanently shut down if, within 20 days after receipt of written notice from the Department, the emissions unit owner or operator demonstrates that the permit expiration resulted from inadvertent failure to comply with the requirements of Rule 62-4.090, F.A.C., and that the owner or operator intends to continue the emissions unit in operation, and either submits an application for an air operation permit or complies with permit transfer requirements, if applicable.
- b. If the owner or operator of an emissions unit which is so permanently shut down, applies to the Department for a permit to reactivate or operate such emissions unit, the emissions unit will be reviewed and permitted as a new emissions unit.

[Rule 62-210.300(6), F.A.C.]

**TV24. Transfer of Permits.** Per Rule 62-4.160(11), F.A.C., this permit is transferable only upon Department approval in accordance with Rule 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility. The permittee shall also comply with the

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requirements of Rule 62-210.300(7), F.A.C., and use DEP Form No. 62-210.900(7). [Rules 62-4.160(11), 62-4.120, and 62-210.300(7), F.A.C.]

**Rights, Title, Liability, and Agreements**

**TV25. Rights.** As provided in Subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit. [Rule 62-4.160(3), F.A.C.]

**TV26. Title.** This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [Rule 62-4.160(4), (F.A.C.)]

**TV27. Liability.** This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department. [Rule 62-4.160(5), F.A.C.]

**TV28. Agreements.**

- a. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - (1) Have access to and copy any records that must be kept under conditions of the permit;
  - (2) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
  - (3) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
- b. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- c. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

[Rules 62-4.160(7), (9), and (10), F.A.C.]

**Recordkeeping and Emissions Computation**

**TV29. Permit.** The permittee shall keep this permit or a copy thereof at the work site of the permitted activity. [Rule 62-4.160(12), F.A.C.]

**TV30. Recordkeeping.**

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five (5) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:

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- (1) The date, exact place, and time of sampling or measurements, and the operating conditions at the time of sampling or measurement;
- (2) The person responsible for performing the sampling or measurements;
- (3) The dates analyses were performed;
- (4) The person and company that performed the analyses;
- (5) The analytical techniques or methods used;
- (6) The results of such analyses.

[Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]

**TV31. Emissions Computation.** Pursuant to Rule 62-210.370, F.A.C., the following required methodologies are to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with Rule 62-210.370, F.A.C. Rule 62-210.370, F.A.C., is not intended to establish methodologies for determining compliance with the emission limitations of any air permit.

For any of the purposes specified above, the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.

- a. *Basic Approach.* The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
  - (1) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
  - (2) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
  - (3) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- b. *Continuous Emissions Monitoring System (CEMS).*
  - (1) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
    - (a) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or,
    - (b) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
  - (2) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
    - (a) A calibrated flowmeter that records data on a continuous basis, if available; or

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- (b) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
- (3) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- c. *Mass Balance Calculations.*
  - (1) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
    - (a) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and,
    - (b) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
  - (2) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
  - (3) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.
- d. *Emission Factors.*
  - (1) An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
    - (a) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
    - (b) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
    - (c) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
  - (2) If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- e. *Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS.* In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of

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missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.

- f. *Accounting for Emissions During Periods of Startup and Shutdown.* In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- g. *Fugitive Emissions.* In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- h. *Recordkeeping.* The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(1) & (2), F.A.C.]

**Responsible Official**

**TV32. Designation and Update.** The permittee shall designate and update a responsible official as required by Rule 62-213.202, F.A.C.

**Prohibitions and Restrictions**

**TV33. Asbestos.** This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source. [40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]

**TV34. Refrigerant Requirements.** Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Chapter 62-281, F.A.C.

**TV35. Open Burning Prohibited.** Open burning is prohibited unless performed in accordance with the provisions of Rule 62-296.320(3) or Chapter 62-256, F.A.C.

## APPENDIX U

### List of Unregulated Emissions Units and/or Activities.

Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘insignificant emissions units’.

<b><u>E.U. ID No.</u></b>	<b><u>Brief Description of Emissions Units and/or Activity</u></b>
-099	Fugitive emissions (SO <sub>2</sub> , SO <sub>3</sub> , SAM) from A & B Sulfuric Acid Plants
	Fugitive emissions (SO <sub>2</sub> , SO <sub>3</sub> , SAM) from C & D Sulfuric Acid Plants
	Fugitive emissions (Fluoride) form the A Phosphoric Acid Plant
	Fugitive emissions (Fluoride) form the B Phosphoric Acid Plant
	Fugitive emissions (Fluoride, NH <sub>3</sub> , PM) from the A Granulation Plant
	Fugitive emissions (Fluoride, NH <sub>3</sub> , PM) from the X Granulation Plant
	Fugitive emissions (Fluoride, NH <sub>3</sub> , PM) from the Y Granulation Plant
	Fugitive emissions (Fluoride, NH <sub>3</sub> , PM) from the Z Granulation Plant
	Fugitive emissions (Hydrogen Fluoride) from the Phosphogypsum Stack
	Fugitive emissions (Hydrogen Fluoride) from the Cooling Pond

**REFERENCED ATTACHMENTS.**

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**The Following Attachments Are Included for Applicant Convenience:**

Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).

Table H, Permit History.

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Compliance Requirements.

Statement of Basis.

**FIGURE 1**

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE**

[Note: This form is referenced in 40 CFR 60.7, Subpart A-General Provisions]

Pollutant (*Circle One*): SO<sub>2</sub> NO<sub>x</sub> TRS H<sub>2</sub>S CO Opacity

Reporting period dates: From \_\_\_\_\_ to \_\_\_\_\_

Company: \_\_\_\_\_

Emission Limitation: \_\_\_\_\_

Address: \_\_\_\_\_

Monitor Manufacturer: \_\_\_\_\_

Model No.: \_\_\_\_\_

Date of Latest CMS Certification or Audit: \_\_\_\_\_

Process Unit(s) Description: \_\_\_\_\_

Total source operating time in reporting period<sup>1</sup>: \_\_\_\_\_

<b>Emission data summary</b> <sup>1</sup>	<b>CMS performance summary</b> <sup>1</sup>
1. Duration of excess emissions in reporting period due to: a. Startup/shutdown ..... ____ b. Control equipment problems ..... ____ c. Process problems ..... ____ d. Other known causes ..... ____ e. Unknown causes ..... ____	1. CMS downtime in reporting period due to: a. Monitor equipment malfunctions ..... ____ b. Non-Monitor equipment malfunctions ..... ____ c. Quality assurance calibration ..... ____ d. Other known causes ..... ____ e. Unknown causes ..... ____
2. Total duration of excess emissions ..... ____	2. Total CMS Downtime ..... ____
3. Total duration of excess emissions x (100) / [Total source operating time] ..... % <sup>2</sup>	3. [Total CMS Downtime] x (100) / [Total source operating time] ..... % <sup>2</sup>

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 CFR 60.7(c) shall be submitted.

*Note: On a separate page, describe any changes since the last in CMS, process or controls.*

I certify that the information contained in this report is true, accurate, and complete.

Name: \_\_\_\_\_

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

Title: \_\_\_\_\_

**TABLE H**  
**PERMIT HISTORY**

CF Industries, Inc.  
Plant City Phosphate Complex

DRAFT Permit No.: 0570005-048-AV  
Facility ID No.: 0570005

E.U. ID No.	Description	Permit No.	Issue Date	Final Expiration Date	Revised Date(s)
-001	Auxiliary Boiler	AC29-35256	11/19/80	02/28/91	
	Johnson Scotch Marine	AO29-196016	07/25/96	07/31/96	
	Type Boiler	0570005-007-AV	05/21/98	05/21/03	08/17/01
-002	"A" Sulfuric Acid Plant	AC29-146176	03/25/88	09/30/89	
		AO29-167061	09/28/89	09/29/94	
		AC29-200648	01/13/93	11/01/95	
		AO29-236551	04/13/95	02/11/99	10/22/96
		0570005-005-AC	10/22/96	12/31/96	
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-020-AC	08/19/05	01/06/06	
-003	"B" Sulfuric Acid Plant	AC29-146177	05/25/88		
		AO29-167062	09/28/89		
		0570005-005-AC	10/22/96	12/31/96	
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-020-AC	08/19/05	01/06/06	
-004	"A" Phosphoric Acid Plant	AC-73038	03/21/73	12/01/75	
		AC29-40086	05/04/81	08/15/81	
		AO29-200763	10/11/91	10/10/96	
		AC29-236879	12/20/93	12/30/93	
		AO29-232439	12/20/93	11/23/98	
		0570005-008-AC	07/28/97	06/24/99	
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-020-AC	08/19/05	01/06/06	
-007	"C" Sulfuric Acid Plant	AC29-132155/ PSD-FL-119	07/88 (approx)	09/30/89	04/17/89
		AC29-186931/ PSD-FL-155	07/16/91	12/31/91	07/17/91
		AO29-167063	09/28/89	09/29/94	06/01/90, 08/14/90, 12/23/91
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-019-AC/ PSD-FL-339	06/01/04	04/30/06	

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CF Industries, Inc.  
Plant City Phosphate Complex

DRAFT Permit No.: 0570005-048-AV  
Facility ID No.: 0570005

E.U. ID No.	Description	Permit No.	Issue Date	Final Expiration Date	Revised Date(s)
-008	"D" Sulfuric Acid Plant	AC29-132157	05/25/88	12/30/89	
		AO29-167064	09/28/89	09/29/94	06/01/90, 08/13/90
		AC29-186931/ PSD-FL-155	07/16/91	12/31/91	
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-019-AC / PSD-FL-339	06/01/04	04/30/06	
-009	"B" Phosphoric Acid Plant	AC-73038	03/21/73	12/01/75	
		AO29-225960	06/04/93	03/30/98	
		0570005-009-AC	07/28/97	06/24/99	
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-020-AC	08/19/05	01/06/06	
-010	"A" DAP/MAP Plant	AO29-225958	07/28/93	07/15/98	01/18/94, 04/16/96
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-020-AC	08/19/05	01/06/06	
-011	"Z" DAP/MAP Plant	AO29-225959	07/28/93	07/15/98	01/18/94
		0570005-004-AC	06/20/96	12/31/99	
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-018-AC	06/14/04	12/31/04	
		0570005-020-AC	08/19/05	01/06/06	
-012	"X" DAP/MAP Plant	AO29-167059	09/28/89	09/29/94	12/15/89
		AC29-210979	10/23/92	12/30/93	
		AO29-167059/ AO29-167059A	09/28/89	09/29/94	12/17/93
		0570005-004-AC	06/20/96	12/31/99	
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-018-AC	06/14/04	12/31/04	
-013	"Y" DAP/MAP Plant	AC29-2471	08/10/76	01/31/77	
		AC29-165420	07/11/89	09/28/90	
		AO29-181935	11/14/90	09/24/95	07/31/91*, 07/31/95

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**PERMIT HISTORY**

CF Industries, Inc.  
Plant City Phosphate Complex

DRAFT Permit No.: 0570005-048-AV  
Facility ID No.: 0570005

E.U. ID No.	Description	Permit No.	Issue Date	Final Expiration Date	Revised Date(s)
		0570005-004-AC	06/20/96	12/31/99	
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-018-AC	06/14/04	12/31/04	
		0570005-020-AC	08/19/05	01/06/06	
-014	"A" & "B" Storage Buildings	AC29-2472	08/10/76	01/31/77	
		AO29-167370 & AO29-167370A	10/06/89	08/30/94	10/10/94, 12/27/94, 04/16/96
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-020-AC	08/19/05	01/06/06	
-015, 018, 019, 020	"A" & "B" Storage, Sizing, and Shipping	AO29-137574	10/21/88	10/19/93	11/18/88, 07/01/93
		AO29-236314 & AO29-236314A	12/09/93	12/31/99	04/16/96
		AO29-170488	12/05/89	11/01/94	
		0570005-007-AV	05/21/98	05/21/03	08/17/01
		0570005-020-AC	08/19/05	01/06/06	
-022, 023, 024, 033	Molten Sulfur Storage and Handling	AC29-187327	04/10/92	12/01/92	
		AO29-216011 & AO29-216011A	09/29/92	10/01/97	07/02/94
		AC29-226648	06/11/93	12/31/94	
		AC29-167204	01/01/90	01/01/91	
-032	Phosphoric Acid Clean up	AC29-15261	02/27/79	05/01/81	
		AO29-185654	10/26/90	10/23/95	11/15/94
		0570005-006-AC	10/09/96	12/31/97	
		0570005-020-AC	08/19/05	01/06/06	

Not included in this table: Operation permits issued prior to 1989, ownership transfers and construction permit time extension.

**ID Number Changes (for tracking purposes):** From: Facility ID No.: 40HIL290005 To: Facility ID No.: 0570005

\*Partial copy in SWD files

**TABLE H**  
**PERMIT HISTORY**

CF Industries, Inc.  
Plant City Phosphate Complex

DRAFT Permit No.: 0570005-048-AV  
Facility ID No.: 0570005

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Facility	0570005-007-AV	5/21/1998	5/21/2003	Initial
All	Facility	0570005-017-AV	10/13/2005	10/13/2010	Renewal
-007, 008	Sulfuric Acid Plants (SAP) "C & D"	0570005-019-AC (PSD-FL-339)	6/1/2004	6/1/2007	Construction (mod.)
-002, 004, 009	Sulfuric Acid Plants (SAP) "A", Phosphoric Acid Plants (PAP) "A & B"	0570005-021-AC (PSD-FL-355)	7/20/2007	12/31/2009	Construction (mod.)
All		0570005-022-AV	12/17/2007	10/13/2010	Revision
007, 008, 022, 023, 024, 033	Sulfuric Acid Plants (SAP) "C & D", Molten S Storage & Handling System	0570005-026-AC (PSD-FL-339B)	2/28/2008	12/31/2008	Construction (mod)
032	Acid Cleanup Unit Maintenance	0570005-028-AC	3/13/2009	12/31/2010	Construction (mod)
010, 011, 012, 013	DAP/MAP Scrubber System	0570005-030-AC	11/25/2008	12/31/2011	Construction (mod)
All	Facility	0570005-032-AV	3/23/2009	10/13/2010	Revision
012	X-DAP/MAP Modification	0570005-033-AC	11/17/2009	12/31/2011	Construction (mod)
002, 003, 007, 008, 010, 011, 012, 013, 015, 018	Bart Exemption	0570005-034-AC	10/29/2009	12/31/2013	Construction (mod)
004, 009	Two Phos. Acid Clarifiers	0570005-035-AC (PSD-FL-355A)	7/16/2010	12/31/2011	Construction (mod)
010	Sulfur Enhanced Product Test	0570005-036-AC	3/25/2010	12/31/2012	Construction (mod)
004, 009	Phosphoric Acid Maintenance	0570005-037-AC	3/25/2010	12/31/2011	Construction (mod)
011, 012, 013	DAP/MAP Dryer Burner Replacemt	0570005-038-AC	3/11/2010	3/1/2012	Construction (mod)
011, 013	Pre-Neutralizer Replacement	0570005-040-AC	4/26/2010	6/1/2012	Construction (mod)
All	Facility	0570005-041-AV	11/17/2011	11/17/2016	Renewal
032	EU 032 Modification	0570005-043-AC	11/16/2010	9/1/2013	Construction (mod)
001, 004, 011, 012, 013	Permit Modifications Processed with Title V Renewal	0570005-044-AC	9/7/2011	9/1/2013	Construction (mod)
010	A DAP/MAP Scrubber & Dust Control	0570005-045-AC	11/16/2010	9/30/2013	Construction (mod)
004	"A" PAP Modification	0570005-046-AC	1/24/2011	4/30/2013	Construction (mod)
002, 003, 007, 008	"A", "B", "C", "D" Sulfuric Acid Plants	0570005-047-AC	4/20/2012	12/31/2012	Construction (mod)
All	Facility	0570005-048-AV	5/15/2012	11/17/2016	Revision

**TABLE 1**

**SUMMARY OF AIR POLLUTANT STANDARDS AND TERMS**

<b>E.U. ID No.</b>	<b>Brief Description</b>	<b>Fuel(s)</b>	<b>Hrs/Yr</b>	<b>Pollutant Name</b>	<b>Standard Allowable Emissions</b>	<b>Equivalent Emissions* (lbs/hr)</b>	<b>Equivalent Emissions* (TPY)</b>	<b>Regulatory Citation(s)</b>	<b>See Permit Condition(s)</b>
001	Johnson Scotch Marine Type Boiler	Nat. Gas, No. 2 Fuel Oil	8760	PM & SO <sub>2</sub>	BACT	N/A	N/A	- 62-296.406(2), F.A.C. - 62-296.406(3), F.A.C.	<b>A.2.</b>
				VE	20% Opacity except 40% for 2 min/hr	N/A	N/A	- 62-296.406(1), F.A.C.	<b>A.5.</b>
002	"A" Sulfuric Acid Plant		8760	SO <sub>2</sub>	<u>3-hr Rolling Ave:</u> 5.6 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub>  <u>24-hr Block Ave:</u> 75.8 lb/hr	303.3  75.8	  332	Construction Permits: • 0570005-020-AC • 0570005-21-AC /PSD-FL-355 • 0570005-34-AC	<b>B.5.</b>
002	"A" Sulfuric Acid Plant		8760	SAM	0.3 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	1.43	6.3	Construction Permit 0570005-020-AC	<b>B.6.</b>
002	"A" Sulfuric Acid Plant		8760	NO <sub>x</sub>	0.12 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	6.5	28.5	Construction Permit 0570005-34-AC	<b>B.7.</b>
002	"A" Sulfuric Acid Plant		8760	VE	10% opacity			62-296.402(1)(b)1, F.A.C.	<b>B.4.</b>
003	"B" Sulfuric Acid Plant		8760	SO <sub>2</sub>	<u>3-hr Rolling Ave:</u> 3.5 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub>	233.3		Construction Permit • 0570005-21-AC /PSD-FL-355 • 0570005-34-AC	<b>B.5.</b>
					<u>24-hr Block Ave:</u> 93.3 lb/hr	93.3	409		
003	"B" Sulfuric Acid Plant		8760	SAM	0.075 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	1.8	7.9	Construction Permit 0570005-034-AC (BART Exemption Project)	<b>B.6.</b>
003	"B" Sulfuric Acid Plant		8760	NO <sub>x</sub>	0.12 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	8.0	35.0	Construction Permit 0570005-21-AC /PSD-FL-355	<b>B.7.</b>
003	"B" Sulfuric Acid Plant		8760	VE	10% opacity			• 62-296.402(1)(b)1, F.A.C • 40 CFR 60.83(a)(2) (Subpart H)	<b>B.4.</b>

**TABLE 1**

**SUMMARY OF AIR POLLUTANT STANDARDS AND TERMS**

<b>E.U. ID No.</b>	<b>Brief Description</b>	<b>Fuel(s)</b>	<b>Hrs/Yr</b>	<b>Pollutant Name</b>	<b>Standard Allowable Emissions</b>	<b>Equivalent Emissions* (lbs/hr)</b>	<b>Equivalent Emissions* (TPY)</b>	<b>Regulatory Citation(s)</b>	<b>See Permit Condition(s)</b>
004	"A" Phosphoric Acid Plant		8,760	Fluorides (F)	0.012 lb/ton of "equivalent P <sub>2</sub> O <sub>5</sub> feed"	0.85	3.7	<ul style="list-style-type: none"> <li>• Construction Permit 0570005-21-AC /PSD-FL-355</li> <li>• 62-296.403, F.A.C.</li> <li>• 40 CFR 60, Subpart T</li> <li>• 40 CFR 63, Subpart AA</li> </ul>	C.2.
007	"C" Sulfuric Acid Plant		8760	SO <sub>2</sub>	<u>3-hr Rolling Ave:</u> 3.25 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub>  <u>24-hr Block Ave:</u> 303.3 lb/hr	352	1,329	Construction Permit <ul style="list-style-type: none"> <li>• 0570005-26-AC /PSD-FL-339B</li> <li>• 0570005-34-AC</li> </ul>	B.5.
007	"C" Sulfuric Acid Plant		8760	SAM	0.093 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	10.1	44.2	Construction Permit <ul style="list-style-type: none"> <li>• 0570005-26-AC /PSD-FL-339B</li> <li>• 0570005-34-AC</li> </ul>	B.6.
007	"C" Sulfuric Acid Plant		8,760	NOx	0.11 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	11.9	52.1	Construction Permit 0570005-26-AC /PSD-FL-339B	B.7.
007	"C" Sulfuric Acid Plant		8,760	VE	10% opacity			62-212.400, F.A.C.	B.4.
008	"D" Sulfuric Acid Plant		8,760	SO <sub>2</sub>	<u>3-hr Rolling Ave:</u> 3.25 lbs/ton of 100% H <sub>2</sub> SO <sub>4</sub>  <u>24-hr Block Ave:</u> 303.3 lb/hr	352	1,329	Construction Permit <ul style="list-style-type: none"> <li>• 0570005-26-AC /PSD-FL-339B</li> <li>• 0570005-34-AC</li> </ul>	B.5.
008	"D" Sulfuric Acid Plant		8,760	SAM	0.093 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	10.1	44.2	Construction Permit <ul style="list-style-type: none"> <li>• 0570005-26-AC /PSD-FL-339B</li> <li>• 0570005-34-AC</li> </ul>	B.6.
008	"D" Sulfuric Acid Plant		8,760	NOx	0.11 lb/ton of 100% H <sub>2</sub> SO <sub>4</sub>	11.9	52.1	Construction Permit 0570005-26-AC /PSD-FL-339B	B.7.

**TABLE 1**

**SUMMARY OF AIR POLLUTANT STANDARDS AND TERMS**

<b>E.U. ID No.</b>	<b>Brief Description</b>	<b>Fuel(s)</b>	<b>Hrs/Yr</b>	<b>Pollutant Name</b>	<b>Standard Allowable Emissions</b>	<b>Equivalent Emissions* (lbs/hr)</b>	<b>Equivalent Emissions* (TPY)</b>	<b>Regulatory Citation(s)</b>	<b>See Permit Condition(s)</b>
008	"D" Sulfuric Acid Plant		8,760	VE	10% opacity			62-212.400, F.A.C.	<b>B.4.</b>
009	"B" Phosphoric Acid Plant		8,760	Fluorides (F)	0.012 lb/ton of "equivalent P <sub>2</sub> O <sub>5</sub> feed"	1.26	5.5	<ul style="list-style-type: none"> <li>• Construction Permit 0570005-21-AC /PSD-FL-355</li> <li>• 62-296.403, F.A.C.</li> <li>• 40 CFR 60, Subpart T</li> <li>• 40 CFR 63, Subpart AA</li> </ul>	<b>C.2.</b>
010	"A" DAP/MAP Plant	Nat. Gas & No. 5 Oil	8,760	PM	13.0 lbs/hr & 56.9 tons/yr	13.0	56.9	Construction Permit 0570005-21-AC /PSD-FL-355	<b>D.5.</b>
010	"A" DAP/MAP Plant	Nat. Gas & No. 5 Oil	8,760	Fluorides (F)	0.06 lb/ton	1.77	7.76	62-296.403, F.A.C. 40 CFR 63.622(a) (Subpart BB)	<b>D.6.</b>
011	"Z" DAP/MAP Plant	Nat. Gas & No. 5 Oil	8,760	PM	15.0 lbs/hr & 65.7 tons/yr	15.0	65.7	Construction Permit 0570005-21-AC /PSD-FL-355 62-296.700(2)(b), F.A.C.	<b>E.7.</b>
011	"Z" DAP/MAP Plant	Nat. Gas & No. 5 Oil	8,760	Fluorides (F)	0.06 lb/ton	1.44	6.31	62-296.403, F.A.C. 40 CFR 63.622(a) (Subpart BB)	<b>E.5.</b>
012	"X" DAP/MAP Plant	Nat. Gas & No. 5 Oil	8,760	PM	10.62 lbs/hr (DAP) 13.75 lbs/hr (MAP) & 41.88 tons/yr	10.62 (DAP) 13.75 (MAP)	41.88	<ul style="list-style-type: none"> <li>• Construction Permit AC29-210979</li> <li>• 62-212.300, F.A.C.</li> </ul>	<b>E.7.</b>
012	"X" DAP/MAP Plant	Nat. Gas & No. 5 Oil	8,760	Fluorides (F)	0.035 lb/ton (DAP Mode) 0.04 lb/ton (MAP Mode)	1.7 (DAP) <del>6.22.2</del> (MAP)	6.7	<ul style="list-style-type: none"> <li>• Construction Permit AC29-210979</li> <li>• 62-296.403, F.A.C.</li> <li>• 62-212.300, F.A.C.</li> <li>• 40 CFR 63.622(b) (Subpart BB)</li> </ul>	<b>E.5.</b>

**TABLE 1**

**SUMMARY OF AIR POLLUTANT STANDARDS AND TERMS**

<b>E.U. ID No.</b>	<b>Brief Description</b>	<b>Fuel(s)</b>	<b>Hrs/Yr</b>	<b>Pollutant Name</b>	<b>Standard Allowable Emissions</b>	<b>Equivalent Emissions* (lbs/hr)</b>	<b>Equivalent Emissions* (TPY)</b>	<b>Regulatory Citation(s)</b>	<b>See Permit Condition(s)</b>
<b>013</b>	“Y” DAP/MAP Plant	Nat. Gas & No. 5 Oil	8,760	PM	15.3 lbs/hr & 67 tons/yr	15.3	67	Construction Permit AC29-165420	<b>E.7.</b>
<b>013</b>	“Y” DAP/MAP Plant	Nat. Gas & No. 5 Oil	8,760	Fluorides (F)	0.06 lb/ton	2.2	9.6	<ul style="list-style-type: none"> <li>• Construction Permit AC29-165420</li> <li>• 40 CFR 63.622(a) &amp;(b) (Subpart BB)</li> </ul>	<b>E.5.</b>
<b>015, 018, 019, 020</b>	<ul style="list-style-type: none"> <li>• A Shipping Baghouse</li> <li>• B Shipping Baghouse</li> <li>• B Truck Loading</li> <li>• B Railcar Loading</li> </ul>		8,760	PM & VE	5 lbs/hr (PM) & 5% (VE)	5	21.9	<ul style="list-style-type: none"> <li>• Construction Permit 0570005-21-AC /PSD-FL-355</li> <li>• 62-297.620(4), F.A.C.</li> </ul>	<b>G.3. &amp; G.4.</b>
<b>032</b>	Phosphoric Acid Cleanup		8,760 (730 acid transfer)	Fluorides (F)	0.28 lbs/hr	0.28	1.23	Construction Permit 0570005-006-AC	<b>I.3.</b>

\* The “Equivalent Emissions” listed are for informational purposes only.

**TABLE 2**  
**COMPLIANCE REQUIREMENTS**

<b>E.U. ID No.</b>	<b>Brief Description</b>	<b>Fuel(s)</b>	<b>Pollutant Name</b>	<b>Emission Monitoring<sup>1</sup></b>	<b>Emission Control</b>	<b>Compliance Method EPA Method</b>	<b>Testing Time Frequency</b>	<b>Frequency Base Date<sup>2</sup></b>	<b>Min. Compliance Test Duration</b>	<b>See Permit Condition(s)</b>
001	Johnson Scotch Marine Type Boiler	Nat. Gas & No. 2 Oil	VE			DEP Method 9	Prior to TV Renewal	N/A	60 minutes	A.7. and A.9.
002	"A" Sulfuric Acid Plant		SO <sub>2</sub>	CEMS	SO2 Scrubber				N/A	B.18.
002	"A" Sulfuric Acid Plant		SAM		Mist Eliminator	EPA Method 8	FFY	N/A		B.14. , B.16.
002	"A" Sulfuric Acid Plant		NO <sub>x</sub>			EPA Method 7E	FFY	N/A		B.14. , B.16.
002	"A" Sulfuric Acid Plant		VE			EPA Method 9	FFY	N/A	60 minutes	B.14. , B.16.
003	"B" Sulfuric Acid Plant		SO <sub>2</sub>	CEMS	SO2 Scrubber					B.18.
003	"B" Sulfuric Acid Plant		SAM		Mist Eliminator	EPA Method 8	FFY	N/A		B.14. , B.16.
003	"B" Sulfuric Acid Plant		NO <sub>x</sub>			EPA Method 7E	FFY	N/A		B.14. , B.16.
003	"B" Sulfuric Acid Plant		VE			EPA Method 9	FFY	N/A	60 minutes	B.14. , B.16.
004	"A" Phosphoric Acid Plant		F		Packed Bed Scrubber & Wet Cyclone Separator	EPA Methods <del>5B</del> , 13A & 13B	FFY	N/A		C.8., C.10.
007	"C" Sulfuric Acid Plant		SO <sub>2</sub>	CEMS	Double Contact Process					B.18.
007	"C" Sulfuric Acid Plant		SAM		Mist Eliminator	EPA Method 8	FFY	N/A		B.14. , B.16.
007	"C" Sulfuric Acid Plant		NO <sub>x</sub>			EPA Method 7E	FFY	N/A		B.14. , B.16.
007	"C" Sulfuric Acid Plant		VE			EPA Method 9	FFY	N/A	60 minutes	B.14. , B.16.
008	"D" Sulfuric Acid Plant		SO <sub>2</sub>	CEMS	Double Contact Process					B.18.
008	"D" Sulfuric Acid Plant		SAM		Mist Eliminator	EPA Method 8	FFY	N/A		B.14. , B.16.

**TABLE 2**  
**COMPLIANCE REQUIREMENTS**

<b>E.U. ID No.</b>	<b>Brief Description</b>	<b>Fuel(s)</b>	<b>Pollutant Name</b>	<b>Emission Monitoring<sup>1</sup></b>	<b>Emission Control</b>	<b>Compliance Method EPA Method</b>	<b>Testing Time Frequency</b>	<b>Frequency Base Date<sup>2</sup></b>	<b>Min. Compliance Test Duration</b>	<b>See Permit Condition(s)</b>
008	"D" Sulfuric Acid Plant		NOx			EPA Method 7E	FFY	N/A		B.14. , B.16.
008	"D" Sulfuric Acid Plant		VE			EPA Method 9	FFY	N/A	60 minutes	B.14. , B.16.
009	"B" Phosphoric Acid Plant		F		Packed Bed Scrubber	EPA Methods 5B, 13A & 13B	FFY	N/A		C.8., C.10.
010	"A" DAP/MAP Plant	Nat. Gas & No. 5 Oil	PM & F		Cyclones, Venturi Scrubbers & Wet Scrubbers	EPA Methods 5B, 13A & 13B	FFY	N/A		D.10., D.12., D.13.
011	"Z" DAP/MAP Plant	Nat. Gas & No. 5 Oil	PM & F		Cyclones, Venturi Scrubbers & Wet Scrubbers	EPA Methods 5B, 13A & 13B	FFY	N/A		E.11., E.12., E.13.
012	"X" DAP/MAP Plant	Nat. Gas & No. 5 Oil	PM & F		Cyclones, Venturi Scrubbers & Wet Scrubbers	EPA Methods 5B, 13A & 13B	FFY	N/A		E.11., E.12., E.13..
013	"Y" DAP/MAP Plant	Nat. Gas & No. 5 Oil	PM & F		Cyclones, Venturi Scrubbers & Wet Scrubbers	EPA Methods 5B, 13A & 13B	FFY	N/A		E.11., E.12., E.13..
015, 018, 019, 020	<ul style="list-style-type: none"> <li>• A Shipping Baghouse</li> <li>• B Shipping Baghouse</li> <li>• B Truck Loading</li> <li>• B Railcar Loading</li> </ul>		PM & VE		Baghouse, Dust Suppressant	DEP Method 9	FFY	N/A	30 minutes	G.6., G.8.
032	Phosphoric Acid Cleanup		F		Packed Bed Scrubber	EPA Method 13A & 13B	FFY	N/A		I.4., I.6.

1. CEMS = Continuous Emission Monitoring System

2. The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

## STATEMENT OF BASIS

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### Title V Air Operation Permit Revision Permit No. 0570005-048-AV

#### APPLICANT

The applicant for this project is CF Industries, Inc. The applicant's responsible official and mailing address are: Mr. Herschel E. Morris, Vice-President Phosphate Operations & General Manager, CF Industries, Inc., P.O. Drawer L, Plant City, Florida 33564.

#### FACILITY DESCRIPTION

The applicant operates the Plant City Phosphate Complex, which is located at in Hillsborough County at 10608 Paul Buchman Highway, Plant City, Florida. The facility consists of sulfur storage and handling systems, four sulfuric acid production plants, two phosphoric acid production plants, a phosphoric acid cleanup unit and four ammonium phosphate production plants with associated storage and shipping units. The facility also includes several emergency diesel engines and a phosphogypsum stack. Final products produced at the facility include sulfuric acid, phosphoric acid, ammonium sulfate, diammonium phosphate (DAP), and monoammonium phosphate (MAP). A brief description of the facility's emissions units are summarized below:

Johnson Scotch Marine Type Boiler (E.U. No. 001): The facility includes an 83.3 MMBtu/hour boiler that is fired with natural gas as the primary fuel and no. 2 fuel oil as the backup.

A, B, C & D Sulfuric Acid Plants (E.U. Nos. 002, 003, 007 & 008): The A, B, C and D Sulfuric Acid Plants have maximum permitted production capacities of 1,300, 1,600, 2,600 and 2,600 tons per day of 100% sulfuric acid, respectively. Sulfur dioxide and sulfuric acid mist (acid mist) emissions generated at A & B Sulfuric Acid Plants (E.U. Nos. 002 & 003) are controlled at each plant by a two-stage SO<sub>2</sub> scrubber and a high-efficiency mist eliminator at, while sulfur dioxide and sulfuric acid mist (acid mist) emissions generated at a C & D Sulfuric Acid Plants (E.U. Nos. 007 & 008) are controlled at each plant via a Double Contact Process and high-efficiency mist eliminator. These units utilize Continuous Emissions Monitoring Systems for compliance purposes for SO<sub>2</sub>.

A & B Phosphoric Acid Plants (E.U. Nos. 004 & 009): The A and B Phosphoric Acid Plants are permitted for maximum process input rates of 1,699 and 2,530 tons per day of 100% P<sub>2</sub>O<sub>5</sub> feed, respectively. Fluoride emissions generated at facility's A & B Phosphoric Acid Plants are controlled at each plant by a cyclonic scrubbers followed by packed bed scrubber.

Phosphoric Acid Cleanup (E.U. No 032): The Phosphoric Acid Cleanup Unit clarifies phosphoric acid from the phosphoric acid plants and is permitted for maximum process input rates of 671 tons of phosphoric acid. Fluoride emissions generated at the Phosphoric Acid Cleanup (E.U. No. 032) are controlled by fume duct sprays followed by a packed bed scrubber.

A, Z, X & Y DAP/MAP (E.U. Nos. 010, 011, 012 & 013): The "A" DAP/MAP Plant is permitted for maximum process input rates of 29.53 tons/hour in DAP production mode and 33.30 tons/hour in MAP production mode. The "Z," "X" and "Y" DAP/MAP Plants are each permitted for maximum process input rates of 48.7 tons/hour in DAP production mode and 55.0 tons/hour in MAP production mode. Particulate Matter and Fluorides emissions generated at each of these plants are controlled by cyclones, venturi scrubbers & wet Scrubbers located in the plants.

A & B Storage Buildings (E.U. No. 014): These buildings are used for the storage of DAP and MAP produced at the A, Z, X & Y DAP/MAP Plants. Particulate matter emissions from the "A" & "B" Storage Buildings are minimized by the use of dust suppressant.

A & B Shipping Units (E.U. Nos. 015, 018, 019 & 020): "A" & "B" Shipping units consists of sizing, screening, and conveying systems for transferring DAP/MAP from storage buildings "A" and "B" to the truck and railcar loading operations associated with these buildings. Particulate matter emissions from each of the unit (i.e., "A" & "B" Shipping Units) are controlled by baghouse dust collectors. Additionally, emissions from the truck and railcar loading operations are minimized by the use of dust suppressant.

## STATEMENT OF BASIS

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Sulfur Storage and Handling System (E.U. Nos. 022, 023, 024 & 033): The sulfur storage and handling system includes Truck Pit A (E.U. No. 023), Truck Pit B (E.U. No. 024), a 2600 Ton Storage Tank (E.U. No. 022), a 5000 Ton Storage Tank (E.U. No. 033) and a railcar unloading pit. Molten sulfur delivered by trucks or railcar is unloaded into the sulfur storage system. Emissions from the storage vessel are vented uncontrolled through a round stack with a rain cap.

Emergency Diesel Engines (E.U. No. 034): The emissions unit includes a total of four emergency diesel engines that are regulated under 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Phosphogypsum Stack (E.U. No. 100): The emissions unit includes a phosphogypsum stack that is regulated under 40 CFR 61, Subpart R - National Emission Standards for Radon Emissions from Phosphogypsum Stacks.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

### PROJECT DESCRIPTION

The purpose of this permitting project is to revise the existing Title V permit for the above referenced facility.

### PROCESSING SCHEDULE AND RELATED DOCUMENTS

Renewed Title V Air Operation Permit issued November 17, 2011

Application for a Title V Air Operation Permit Revision received October 17, 2011

Additional Information Request dated November 3, 2011

Additional Information Response received January 25, 2012 and January 31, 2012

Notice of Intent to Issue Air Permit issued March 26, 2012

Public Notice Published March 31, 2012

### PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) applies to Emissions Unit No. 032. Emissions Unit 032 (Phosphoric Acid Cleanup) is subject to CAM for the regulated emissions of fluoride, which are controlled by a packed-bed scrubber.

### PROJECT REVIEW

The purpose of this project is to incorporate the provisions of Permit No. 0570005-047-AC, which authorized the following maintenance and construction activities:

- (1) In the facility's four sulfuric acid plants (E.U. No. 002, 003, 007 and 008) the permittee is authorized by Construction Permit 0570005-047-AC to replace acid coolers in the facility's four sulfuric acid plants with spare coolers, as needed.
- (2) In the facility's B Sulfuric Acid Plant (E.U. No. 003), the permittee is authorized by Construction Permit 0570005-047-AC to make several modifications to the plant's SO<sub>2</sub> Stripper and associated equipment.

## STATEMENT OF BASIS

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In addition to the construction modifications outlines above, the following changes were made to the Title V permit as part of this revision:

- (1) The specific conditions associated with Rule 62-296.411, F.A.C. for “Sulfur Storage and Handling Facilities” which applies to E.U. Nos. 022, 023, 024 and 033, were removed because the rule was repealed.
- (2) A typographical error in contained in Table 2 of the Referenced Attachments was corrected. The VE test duration for E.U. Nos. 015, 018, 019 and 020 was changed from 60 minutes to 30 minutes.
- (3) The specific condition associated with Continuous Monitoring Requirements for SO<sub>2</sub> CEMS in the four sulfuric acid plants (E.U. Nos. 002, 003, 007 & 008) was revised to address 24 hour block average SO<sub>2</sub> emissions.

Note: In the Draft/Proposed version of the Title V permit, changes (summarized above) made to conditions and language in the permit are displayed with a ~~striketrough format~~ for deletions and a **Shaded format** for additions.

### CONCLUSION

This project revises Title V air operation permit No. 0570005-041-AV, which was issued on November 17, 2011. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.