

Florida Department of Environmental Protection

Memorandum

TO: Mike Halpin, Director, Division of Air Resource Management
THROUGH: Trina Vielhauer, Deputy Director, Division of Air Resource Management
Jon Holtom, Title V Section *JH 4/13/11*
FROM: Andrew Bass, Title V Section *AB 4/13/11*
DATE: 03/28/2011
SUBJECT: Title V Air Operation Permit No. 0570039-045-AV

Tampa Electric Company
Big Bend Station
Final Title V Air Operation Permit Revision

The final permit for this project is attached for your approval and signature.

The attached Final Determination identifies issuance of the draft/proposed Title V air operation permit and summarizes the publication process. There were no comments received from EPA or the public in response to the draft/proposed permit, but there were some minor corrections suggested by the applicant.

I recommend your approval of the attached final permit for this project.

Attachments

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Tampa Electric Company (TEC)
P.O. Box 111
Tampa, Florida 33601-0111

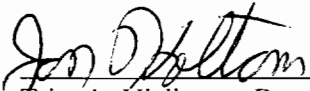
Permit No. 0570039-045-AV
Big Bend Station
Title V Air Operation Permit Revision
Hillsborough County, Florida

Responsible Official:
Ronald D. Bishop, Director

Enclosed is the final permit package to revise the Title V air operation permit for the Big Bend Station. The existing facility is located at Big Bend Road, North Ruskin, in Hillsborough County, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.


Trina L. Vielhauer, Deputy Director Date 4/15/11
Division of Air Resource Management

TLV/jh/ab

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Permit and Final Determination), or a link to these documents available electronically on a publicly accessible server, was sent by electronic mail with received receipt requested to the persons listed below:

- Mr. Ronald D. Bishop, Director, TEC Big Bend Station: rdbishop@tecoenergy.com
- Mr. Paul L. Carpinone, Designated Representative, TEC: plcarpinone@tecoenergy.com
- Mr. Byron T. Burrows, P.E., Manager-Air Programs EHS, TEC: btburrows@tecoenergy.com
- Ms. Julie Ward, Engineer-Air Programs EHS, TEC: jmward@tecoenergy.com
- Mr. Thomas W. Davis, P.E., ECT: tdavis@ectinc.com
- Ms. Diana M. Lee, P.E., EPCHC: lee@epchc.org
- Ms. Cindy Zhang-Torres, P.E., DEP SWD: zhang-torres@dep.state.fl.us
- Ms. Katy Forney, US EPA Region 4: forney.kathleen@epa.gov
- Ms. Ana Oquendo, US EPA Region 4: oquendo.ana@epa.gov
- Ms. Barbara Friday, DEP BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)
- Ms. Victoria Gibson, DEP BAR: victoria.gibson@dep.state.fl.us (for reading file)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.


(Clerk) 4/15/11 (Date)

FINAL DETERMINATION

PERMITTEE

Tampa Electric Company
P.O. Box 111
Tampa, Florida 33601-0111

PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)
Division of Air Resource Management
Bureau of Air Regulation, Title V Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Permit No. 0570039-045-AV
Big Bend Station

The purpose of this project is to revise the Title V air operation permit for the above referenced facility. This permit was processed using a parallel review.

NOTICE AND PUBLICATION

The Department distributed an Intent to Issue Air Permit package on January 28, 2011. The applicant published the Public Notice of Intent to Issue Air Permit in the South Shore News and Tribune on February 9, 2011. The Department received the proof of publication on February 15, 2011. A proposed permit was issued for EPA review on February 9, 2011.

COMMENTS

No comments were received from EPA Region 4 office or from the public.

Comments were received from the Applicant during the 30-day public comment period. The comments were not considered significant enough to reissue the draft/proposed Title V air operation permit and require another Public Notice, therefore, the draft/proposed Title V air operation permit was changed. The comments are addressed below. Additions to the permit are indicated below by double underline. Deletions from the permit are indicated below by ~~strike through~~.

The following minor comments were received from the applicant by email on March 11, 2011.

Applicant Comments

1. **Page 43, Section III.H** –The description for FH-064 should read “Dozer Reclaim from Storage Pile to Loadout or Portable Conveyor”, the term Loadout is used as another name to describe the portable conveyor.

Response: The department accepts the applicant’s request. The description is located in a table of **authorized emission points** for E.U. ID No. -010. The description was corrected as follows.

Dozer Reclaim from Storage Pile to Loadout or Portable Conveyor

2. **Page 76, Section III.P** – Please add the following language in the Emission Limitations and Standards section.
 - Additional/New Condition P. X - Visible Emissions Test in Lieu of PM Stack Test. The owner or operator is permitted to comply with the VE limit and the VE testing requirement in lieu of regularly demonstrating compliance with the PM limitation. If the Department has reason to believe that the particulate matter limitation is not being met, it shall require compliance be demonstrated by conducting a particulate matter test in accordance with EPA Method 5 specified at 40 CFR 60 Appendix A. [Rules 62-4.070(3) and 62-297.620(4), F.A.C.]

FINAL DETERMINATION

Response: The referenced rule, 62-297.620(4), F.A.C., only applies to emissions units with permitted process weight standards and the use of a baghouse. No new condition was added to the permit as requested by the applicant.

3. **Page 74, Section III.R** – Please change the point ID’s and descriptions as shown below to represent the nomenclature more accurately and represent the process as operating. This will not change the number of conveyor drop points or change emission calculations.

- RC-1 - “Train Car Drop Unloading to ~~Conveyor C-10~~ Belt Feeder BF-1”
- RC-2 3
- RC-3 4
- RC-4 5
- RC-5 6
- RC-6 7
- RC-7 8 – “Conveyor C-15 to Conveyor C-16 or Conveyor P”
- RC-8 9 – “Conveyor C-16 Drop to ~~Belt Feeder BF-1~~ Conveyor F”
- RC-9 2 – “Transfer from BF-1 to ~~C-1~~ Conveyor C-10”

Response: The department accepts the applicant’s requests. The point ID’s and descriptions are located in a table of **authorized emission points** for E.U. ID No. -047 in **Section III.R**. The point ID’s and descriptions were corrected to read as requested above.

CONCLUSION

The final action of the Department is to issue the permit with the minor changes listed above.

STATEMENT OF BASIS

Tampa Electric Company (TECO), Big Bend Station
Title V Operation Permit Revision
Project No. 0570039-045-AV

APPLICANT

The applicant for this project is Tampa Electric Company. The applicant's responsible official and mailing address are: Mr. Ronald D. Bishop, Director, Tampa Electric Company, Big Bend Station, P.O. Box 111, Tampa, Florida 33601-0111.

FACILITY DESCRIPTION

The applicant operates the existing Big Bend Station, which is located in Hillsborough County at Big Bend Road, North Ruskin, Florida.

This existing facility consists of four fossil fuel fired steam generators, Boiler Unit Nos. 1 through 4; four steam turbines; one simple-cycle combustion turbine (CT), CT No. 1; solid fuels, fly ash, limestone, gypsum, slag, and bottom ash storage and handling facilities; and, fuel oil storage tanks.

PROJECT DESCRIPTION

The purpose of this permitting project is to revise the existing Title V air operation permit (0570039-039-AV) for the above referenced facility. This revision includes the addition of construction permits 0570039-040-AC and 0570039-041-AC.

This permit will incorporate the new addition of railcar coal unloading and conveying system and the addition of two simple cycle combustion turbine (SCCT) peaking units, with one associated electrical generator, and one emergency diesel engine/generator set into the existing facility. It also removes the Combustion Turbine No. 1 from the existing Title V air operation permit and adds magnesium oxide as a method of operation to the boilers for emission units 1, 2, 3 and 4.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Revision received on May 18, 2010.

Application to incorporate Permit No. 0570039-041-AC received on June 7, 2010.

Request to include supplemental injection of magnesium oxide as a method of operation received June 23, 2010.

Requests for Additional Information sent via e-mails on June 10, 2010.

Additional Information Response received September 9, 2010.

Clarification e-mails sent and received on September 30, October 1, 4 and 14, 2010.

Request to add delivery of petcoke by rail as an alternate method of operation received October 25, 2010.

Clarification e-mails sent and received on October 25, 29 and November 1, 2010.

Application deemed complete on November 1, 2010.

Draft/Proposed Permit posted onto web site on January 28, 2011.

Public Notice published on February 9, 2011.

Notification to U.S. EPA Region 4 of Publication of Public Notice on February 9, 2011.

PRIMARY REGULATORY REQUIREMENTS

Title III: This facility is a major source of hazardous air pollutants (HAP), based on the Title V air operation permit renewal application received on June 6, 2008.

NESHAP: This facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 Code of Federal Regulations (CFR) 63.

Title IV: This facility operates units subject to the Acid Rain provisions of the Clean Air Act.

Title V: This facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

STATEMENT OF BASIS

PSD: This facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: This facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

CAIR: This facility operates units subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

Siting: Unit 4 was originally certified pursuant to the power plant siting provisions of Chapter 62-17, F.A.C. (Power Plant Siting Certification PA 79-12).

CAM: Compliance Assurance Monitoring (CAM) applies to emissions units at this facility. CAM applies to particulate matter (PM) emissions from Unit 1, 2, 3 and 4. Unit 1, 2, 3 and 4 each use an electrostatic precipitator (ESP) to control PM emissions. The other emissions units at the facility are not subject to CAM for one or more of the following reasons: they do not trigger the pre-air pollution control device major source emission thresholds; they demonstrate continuous compliance with a continuous emission monitoring system (CEMS); or, they are not equipped with air pollution control devices.

PROJECT REVIEW

The purpose of this permitting project is to revise the existing Title V air operation permit (0570039-039-AV) for the above referenced facility. This revision: includes the addition of construction permits 0570039-040-AC and 0570039-041-AC; removes Combustion Turbine No. 1 from the existing Title V air operation permit; adds magnesium oxide as a method of operation to the boilers for EU 1, 2, 3 and 4; adds the ability to receive petcoke by rail as an alternate method of operation; and makes clarifications to the portions of the permit that regulate the emissions units that comprise the fuel yard. Changes to the permit made as part of this revision are shown in ~~strike through format~~ for deletions and in double underline format for additions. For ease of identification, all changes have been highlighted in yellow within the permit document.

Based on the applicant's requests, the following changes have been made to the permit:

- 1) Magnesium Oxide has been added as a method of operation for the boilers (EU ID Nos. -001, -002, -003 and -004) in Specific Conditions A.4.(f) and B.4.(f). The existing paragraphs (f) have been renumbered to (g).
f. Other Operation – Magnesium Oxide. Supplemental injection of liquid magnesium oxide as needed to reduce upper furnace pluggage.
g.f.
- 2) Combustion Turbine No. 1 (CT#1, EU ID No. -007) was last fired in July 2007 and was dismantled on 10/26/2010. Therefore, CT #1 is being removed from the permit through the deletion of Section III., Subsection C., as required by permit No. 0570039-040-AC, Specific Condition III.1. Section III., Subsection C. is now shown as "Reserved".
- 3) Addition of two new simple cycle combustion turbine (SCCT) peaking units (EU ID Nos. -041 & -042) from Permit No. 0570039-040-AC. The requirements and limitations contained in the construction permit have been incorporated into the permit in the new Section III., Subsection O. In addition, a new Appendix CEMS for EU 41 and 42 and Appendix 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines have been added to the Appendices section of the permit. Also, at the applicant's request, the allowance to exclude excess emissions due to tuning is added in Specific Condition O.15.d. pursuant to the authority of Rules 62-210.700(5) and 62-213.440, F.A.C., as it is preferable to allow short periods of excess emissions during a tuning activity rather than experiencing long periods of higher emissions from a poorly tuned unit. This provision is only effective for the duration of this Title V permit and will need to be re-requested upon renewal. To become a permanent provision, it should be added to the underlying construction permit for these units at some point in the future if that construction permit is opened for revision.

STATEMENT OF BASIS

- 4) The current permit contains requirements for the solid fuel yard in Section III., Subsection H., with a reference to **Appendix F, Solid Fuel Yard Fugitives - Emissions Points** for a listing of all of the different emissions points that comprise Emissions Unit ID Nos. -010, -029 and -030. As the facility has grown over the years, this list of emissions points has grown. However, being permitted at different times, some of the requirements are different for the different points. To help clarify which points are subject to which requirements, some of the emissions points have been removed from EU ID No. -010, have been listed in new Section III., Subsections Q. and R., and have been given new EU ID Nos. of -046 (trans-loading operations) and -047 (railcar unloading and conveying system) and Appendix F has been deleted from the permit. Also, EU ID Nos. -029 and -030 have been moved from Section III, Subsection H to new Section III, Subsection P. The descriptions of the emissions points that were contained within Appendix F have been moved to the emissions unit descriptions for EU ID Nos. -010, -046 and -047 and the existing Section III., Subsection H. has been completely replaced by new Subsections H., P., Q and R. (Please refer to the draft/proposed permit for the detailed changes.)
- 5) The requirements contained in permit No. 0570039-041-AC, which authorized the construction of a railcar unloading and conveying system, are being added to the permit to authorize on-going commercial operation. The construction permit added the emissions points associated with the railcar unloading operations to existing emissions unit ID No. -010 for material handling operations. In order to help clarify which of the material handling operations are subject to which limitations, the railcar operations and emissions point are being removed from EU ID. -010 and added to the permit as EU ID No. -047 in a new Section III., Subsection R. (Please refer to the draft/proposed permit for the detailed changes.)
- 6) Construction permit No. 0570039-043-AC SCCT 4, regarding fuel oil sulfur content, is now obsolete and will not be added to the permit revision.

For clarification purposes, the following administrative changes have been made to the permit:

- 7) The Table of Contents has been updated to reflect the new sections and new emissions units.
- 8) The Summary of Emissions Units in Section I, Subsection B. has been updated to reflect additions and deletions.
- 9) The list of Applicable Requirements in Section I, Subsection C. has been updated.
- 10) The subparagraphs of Specific Condition **A.58.** has been renumbered for consistency within the permit.
- 11) The rule citation in Specific Condition **D.3.** was revised to reflect the correct applicable requirement.

CONCLUSION

This project revises Title V air operation permit No. 0570039-039-AV, which was effective January 1, 2010. 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, 62-213 and 62-214, F.A.C.

Tampa Electric Company

Big Bend Station

Facility ID No. 0570039

Hillsborough County

Title V Air Operation Permit Revision

Permit No. 0570039-045-AV

(1st Revision of Title V Air Operation Permit No. 0570039-039-AV)



Permitting Authority

State of Florida

Department of Environmental Protection

Division of Air Resource Management

Bureau of Air Regulation

Title V Section

Mail Station #5505

2600 Blair Stone Road

Tallahassee, Florida 32399-2400

Telephone: 850/717-9000

Fax: 850/717-9097

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. 0570039-045-AV

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- Appendix 40 CFR 60, Subpart Da, Standards of Performance for Fossil-Fuel Fired Steam Generators.
- Appendix 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines.
- Appendix 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
- Appendix 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.
- Appendix 40 CFR 63, Subpart A, General Provisions.
- Appendix 40 CFR 63, Subpart II, National Emission Standards for Shipbuilding and Ship Repair (Surface Coating).
- Appendix 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
- Appendix I, List of Insignificant Emissions Units and/or Activities.
- Appendix O&M, Operation and Maintenance Plan under RACT for PM.
- Appendix RR, Facility-wide Reporting Requirements.
- Appendix TR, Facility-wide Testing Requirements.
- Appendix TV, Title V General Conditions.
- Appendix U, List of Unregulated Emissions Units and/or Activities.

Referenced Attachments. At End

- Table I, Summary of Air Pollutant Standards and Terms.
- Table 2, Compliance Requirements.
- Table H, Permit History.



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

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Secretary

PERMITTEE:

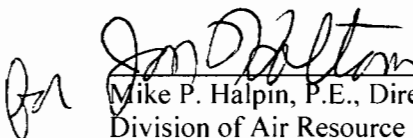
Tampa Electric Company (TEC)
Big Bend Station
13031 Wyandotte Road
Apollo Beach, Florida 33572-9200

Permit No. 0570039-045-AV
Facility ID No. 0570039
SIC No. 4911
Project: Title V Air Operation Permit Revision

The purpose of this permit is to revise Title V air operation permit No. 0570039-039-AV for the Big Bend Station to incorporate the terms and conditions of air construction permit Nos. 0570039-040-AC and 0570039-041-AC, which authorized the construction of two simple-cycle combustion turbines and a railcar solid fuel unloading system, respectively. This existing facility is located in Hillsborough County at Big Bend Road, North Ruskin. UTM Coordinates: Zone 17, 361.9 km East and 3075.0 km North; Latitude: 27° 47' 36" North and Longitude: 82° 24' 11" West.

This Title V air operation permit revision 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 and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility in accordance with the terms and conditions of this permit.

0570039-039-AV Renewal Effective Date: January 1, 2010
0570039-045-AV Revision Effective Date: April 5, 2011
Renewal Application Due Date: May 20, 2014
Expiration Date: December 31, 2014


Mike P. Halpin, P.E., Director
Division of Air Resource Management

MPH/tlv/jkh/adb

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

The Big Bend Station is a nominal 2,028 megawatt (MW) electric generation facility. This facility consists of four fossil fuel fired steam generators, Boiler Unit Nos. 1 through 4; four steam turbines; one simple-cycle combustion turbine (CT), CT No. 1; solid fuels, fly ash, limestone, gypsum, slag, and bottom ash storage and handling facilities; and, fuel oil storage tanks. Unit Nos. 1, 2, 3 and 4 have nominal maximum heat inputs of 4037, 3996, 4115 and 4330 million British thermal units (Btu) per hour, respectively. Unit Nos. 1 through 4 are fired with coal and with petcoke in a mixture with coal up to 20.0% petcoke/80.0% coal (by weight), or a coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station. The combustion turbine is fired with No. 2 distillate fuel oil. In addition, there is a ship surface coating operation. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Subsection B. Summary of Emissions Units.

E.U. ID No.	Brief Description
<i>Regulated Emissions Units</i>	
<i>Fossil Fuel Fired Steam Generator Units</i>	
-001	Fossil Fuel Fired Steam Generator Unit No. 1
-002	Fossil Fuel Fired Steam Generator Unit No. 2
-003	Fossil Fuel Fired Steam Generator Unit No. 3
-004	Fossil Fuel Fired Steam Generator Unit No. 4
<i>Solid Fuel Yard</i>	
-010	Solid Fuel Yard Fugitive Emissions
-029	Fuel Blending Bin Cyclone Collectors (FH-032 through FH-035)
-030	Fuel Mill Cyclone Collectors (FH-048 and FH-049)
-046	Transloading and Off-site Transfer
-047	Railcar Unloading and Conveying System
<i>Coal Bunkers with Roto-Clones</i>	
-015	Unit No. 1 Coal Bunker with Roto-Clone
-016	Unit No. 2 Coal Bunker with Roto-Clone
-017	Unit No. 3 Coal Bunker with Roto-Clone
-039	Unit No. 4 Coal Bunker with Roto-Clone
<i>Flyash Handling and Storage - Silo Nos. 1 & 2</i>	
-008	Fly Ash Silo No. 1 Baghouse
-018	Fly Ash Silo No. 1 Truck Loadout
-009	Fly Ash Silo No. 2 Baghouse
-019	Fly Ash Silo No. 2 Truck Loadout
-026	Fly Ash Handling and Storage Fugitive Emissions (all except silos)
<i>Flyash Handling and Storage - Silo No. 3</i>	
-014	Fly Ash Silo No. 3 Baghouse
-027	Fly Ash Silo No. 3 Truck Loadout
-028	Fly Ash Handling System Fugitive Emissions

SECTION I. FACILITY INFORMATION.

E.U. ID No.	Brief Description
	<i>Limestone Handling and Storage</i>
-011	Truck Limestone Unloading Receiving Hopper
-012	Limestone Silo A with 2 Baghouses
-013	Limestone Silo B with 2 Baghouses
-023	Limestone Handling Conveyor LB to Conveyor LC with Baghouse
-023	Limestone Handling Conveyor LD to Conveyor LE with Baghouse
-025	Limestone Storage and Handling Fugitive Emissions
	<i>Limestone Handling for FGD System for Units 1 & 2</i>
-020	Drops from Limestone Conveyors LE, LF and LG and Silo C Belt Feeder with Baghouse
-021	Silo C with one Baghouse
	<i>Wastewater Treatment Plant</i>
-022	Lime Silo for Wastewater Treatment Plant with one Baghouse
	<i>Abrasive Blasting</i>
-033	Abrasive Blast Booth with Baghouse
-034	Abrasive Blast Media Storage with Baghouse
-032	Surface Coating of Miscellaneous Metal Parts
	<i>Surface Coating Operations</i>
-035	Surface Coating of Ships
	<i>Coal Residual Storage and Transfer from the Polk Power Station</i>
-037	Coal Residual Storage Facility
-038	Coal Residual Transfer System
	<i>Simple-Cycle Combustion Turbines</i>
-041	SCCT 4A with a common electric generator that it shares with SCCT 4B
-042	SCCT 4B with a common electric generator that it shares with SCCT 4A
	<i>Engines</i>
-043	Diesel Emergency Black Start Generator, 800 kW
-044	Coal Field Diesel Generator
	<i>Unregulated Emissions Units and/or Activities</i>
-036	Slag and Bottom Ash Sources BH-001 through BH-004
-036	Gypsum Handling and Storage Sources GH-001 through GH-017
-036	No. 2 Fuel Oil Storage Tanks > 550 gallons
-036	Vehicle Refueling Operations
-045	Emergency Diesel Generator and Fire Pump Diesel Engine

SECTION I. FACILITY INFORMATION.

Subsection C. Applicable Requirements.

Based on the Title V air operation permit renewal application received on June 6, 2008, this facility is a major source of hazardous air pollutants (HAP). This facility is classified as a Prevention of Significant Deterioration (PSD) major facility. A summary of important applicable requirements is shown in the following table.

Applicable Requirement/Regulation	E.U. ID No(s).
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, New Stationary Source Performance Standards (NSPS) General Provisions	-004, -020 & -021
NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978	-004
40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants	-020 & -021
40 CFR 60, Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for which Construction is Commenced after February 18, 2005)	-041 & -042
40 CFR 63, Subpart A, National Emissions Standards for Hazardous Air Pollutants (NESHAP) General Provisions	-035 & -044
Appendix 40 CFR 63, Subpart II - National Emissions Standards for Hazardous Air Pollutants from Shipbuilding and Ship Repair (Surface Coating)	-035
40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) also referred to as the "RICE Maximum Achievable Control Technology (MACT)"	-044
40 CFR 64, Compliance Assurance Monitoring	-001, -002, -003 & -004
<i>State Rule Citations</i>	
<i>only by</i> Rule 62-210.300, F.A.C., Permits Required	-008, -018, -009, -019 & -026 -037 & -038
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration	-004, -010, -029 & -030
Rule 62-214, F.A.C., Acid Rain, Phase II SO ₂	-001, -002, -003 & -004
Rule 62-214, F.A.C., Acid Rain, Phase II NO _x	-001, -002, -003 & -004
Rule 62-296.405(1), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input	-001, -002 & -003
Rule 62-296.405(2), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input	-004
Rule 62-296.470, F.A.C., Clean Air Interstate Rule	-001, -002, -003 & -004
Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR) Retired Units	-005 & -006
Rule 62-296.500, F.A.C., Reasonably Available Control Technology (RACT) - Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO _x) Emitting Facilities	-032 & -035
Rule 62-296.513, F.A.C., RACT VOC - Surface Coating of Miscellaneous Metal Parts and Products	-032

SECTION I. FACILITY INFORMATION.

Applicable Requirement/Regulation	E.U. ID No(s).
Rule 62-296.700(2)(c), F.A.C., RACT PM - Exemption	-015, -016, -017, -022 & -039
Rule 62-296.700(6), F.A.C., RACT PM - O&M Plan	-001, -002, -003 & -004
Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations	-020 -021, -029 & -030
Rule 62-296.712, F.A.C., RACT PM - Miscellaneous Manufacturing Process Operations	-033 & -034
<i>Other Requirements</i>	
Consent Final Judgment (DEP vs. TECO) dated December 16, 1999 and Consent Decree (U.S. vs. TECO) dated February 29, 2000, including amendments.	-001, -002, -003 & -004

SECTION II. FACILITY-WIDE CONDITIONS.

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

FW1. Appendices. The permittee shall comply with all documents identified in Section VI., 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. Nothing was deemed necessary and ordered at this time. [Rule 62-296.320(1), F.A.C.]

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:

- Chemical or water application to: unpaved roads and unpaved yard areas;
- Paving and maintenance of roads, parking areas and yards;
- Landscaping or planting of vegetation;
- Confining abrasive blasting where possible; and
- Other techniques, as necessary.
- Trucks used to transport solid fuels shall utilize tarps at all times except when loading/unloading.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received on June 6, 2008.]

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 1st 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 1st 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.]

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

SECTION II. FACILITY-WIDE CONDITIONS.

calendar year during which the Title V air operation permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

- FW9.** Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:
- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. 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.
 - b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

FW10. Settlement Agreements. The Consent Final Judgement (DEP vs. TECO) dated December 6, 1999; and the Consent Decree (U.S. vs. TECO) dated February 29, 2000, including the amendments dated October 23, 2000 and June 12, 2009; are attached hereto and made a part of this permit as **Appendices CFJ and CD**, respectively. The permittee shall comply with the Consent Final Judgement and the Consent Decree. Wherever the Consent Decree conflicts with this permit, the terms and conditions of the Consent Decree control. [Rules 62-4.070(1), (3) & (5) and 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units -001, -002 & -003

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

E.U. ID No.	Brief Description
-001	Fossil Fuel Fired Steam Generator Unit No. 1
-002	Fossil Fuel Fired Steam Generator Unit No. 2
-003	Fossil Fuel Fired Steam Generator Unit No. 3

The fuel fired in fossil fuel fired steam generator Unit Nos. 1, 2 and 3 consists of coal, or a coal/petroleum coke (petcoke) blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station.

Fossil Fuel Fired Steam Generator Unit No. 1 is a fossil fuel fired steam boiler generating unit rated at 4037 MMBtu/hour with an electrical generating capacity of 445 megawatts (MW). Unit No. 1 is equipped with coal and air flow monitoring equipment. It is a wet bottom utility boiler manufactured by Riley Stoker Corporation. Sulfur dioxide (SO₂) emissions from Unit No. 1 are controlled by wet flue gas desulfurization (FGD) equipment installed in 1999 and manufactured by Wheelabrator. Nitrogen oxides (NO_x) emissions from Unit No. 1 will be controlled by low NO_x burners (LNB) and its own selective catalytic reduction (SCR) system. The SCR system on Unit No. 1 will be installed in 2010. Unit No. 1 began commercial operation in 1970.

Fossil Fuel Fired Steam Generator Unit No. 2 is a fossil fuel fired steam boiler generating unit rated at 3996 MMBtu/hour with an electrical generating capacity of 445 MW. It is a wet bottom utility boiler manufactured by Riley Stoker Corporation. Sulfur dioxide (SO₂) emissions from Unit No. 2 are controlled by the same wet flue gas desulfurization (FGD) equipment installed on Unit No. 1. Nitrogen oxides (NO_x) emissions from Unit No. 2 are controlled by low NO_x burners (LNB) and its own selective catalytic reduction (SCR) system. The SCR system on Unit No. 2 was installed in 2009. Unit No. 2 is equipped with coal and air flow monitoring equipment. Unit No. 2 is also equipped with a neural network system that monitors the following parameters: excess oxygen (O₂) bias; force draft fan balance bias; mill outlet temperature bias; rating damper bias; and, mill bypass damper bias. Unit No. 2 began commercial operation in 1973.

Unit No. 1 and Unit No. 2 share two common stacks (stacks identified as CS-001 and CS-0W1). Particulate matter emissions generated during the operation of the units are each controlled by dry electrostatic precipitators (ESPs) manufactured by Western Precipitator Division, Joy Manufacturing Corporation. The ESP control efficiency is 99.7%. Whenever either unit is fired with petcoke in any amount up to the allowable ratio (20% petcoke/80% coal, by weight), its flue gases must be directed from its ESP to the flue gas desulfurization (FGD) system and then to stack CS-0W1. Otherwise, if petcoke is not fired, the flue gases may bypass the FGD system and stack CS-0W1, and the flue gases are routed from the ESP directly to stack CS-001. The CS-001 stack parameters are: height, 490 feet; diameter, 24.0 feet; exit temperature, 294 degrees F; and, actual stack gas flow rate, 3,147,200 acfm. The CS-0W1 stack parameters are: height, 490 feet; diameter, 29.0 feet; exit temperature, 125 degrees F; and, actual stack gas flow rate, 2,377,871 acfm.

Fossil Fuel Fired Steam Generator Unit No. 3 is a fossil fuel fired steam boiler generating unit rated at 4115 MMBtu/hour with an electrical generating capacity of 445 MW. It is a wet bottom utility boiler manufactured by Riley Stoker Corporation. Sulfur dioxide (SO₂) emissions from Unit No. 3 are controlled by wet flue gas desulfurization (FGD) equipment installed in 1995 and manufactured by Research Cottrell. NO_x emissions are controlled by LNB and its own SCR system. The SCR system on Unit No. 3 was installed in 2008. Particulate matter emissions generated during the operation of the unit are controlled by a dry electrostatic precipitator (ESP) manufactured by Research-Cottrell, Inc. The ESP control efficiency is 99.7%. Unit No. 3 began commercial operation in 1976. The Unit No. 3 stack (stack identification BB-003) parameters are: height, 490 feet; diameter, 24.0 feet; exit temperature, 127 degrees F; and, actual stack gas flow rate, 1,389,740 acfm.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units -001, -002 & -003

{Permitting note(s): Fossil Fuel Fired Steam Generator Unit Nos. 1, 2 and 3 are regulated under the federal Acid Rain Program for Phase II SO2 and NOx; Rule 62-296.405(1), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input; Rule 62-296.700(6), F.A.C., RACT PM - O&M Plan; Compliance Assurance Monitoring (CAM), adopted and incorporated by reference in Rule 62-204.800, F.A.C.; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR). These emissions units are also regulated under a Consent Final Judgment (DEP vs. TECO) dated December 16, 1999 and a Consent Decree (U.S. vs. TECO) dated February 29, 2000, including amendments. These units were formerly regulated under the federal Acid Rain Program as Phase I SO2 substitution units.}

Essential Potential to Emit (PTE) Parameters

A.1. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.)]

A.2. Permitted Capacity. The maximum heat input rates are as follows:

Unit No.	MMBtu/hr Heat Input
1	4,037
2	3,996
3	4,115

[Rules 62-4.160(2), 62-210.200 (Definitions - Potential to Emit (PTE)); and, 62-296.405(1), F.A.C.; and, Permit Nos. 0570039-014-AC (Unit Nos. 1 - 4) and 0570039-022-AC (Unit No. 3).]

A.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.]

A.4. Methods of Operation.

- a. Fuels - Normal Operation. The only fuels allowed to be burned in Unit Nos. 1, 2 and 3 shall consist of coal, or a coal/petroleum coke blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station. In any case, the petroleum coke content of any fuel blend shall not exceed 20% by weight. The vanadium content of the petroleum coke fired shall not exceed 2660 ppm vanadium. The ash content of the petroleum coke fired shall not exceed 0.76% by weight on a dry basis.
- b. Fuels - Startup, Shutdown, Flame Stabilization. In addition to the fuels allowed to be burned during normal operation, each unit may also burn new No. 2 fuel during startup, shutdown, flame stabilization, and during the start of a mill on an already operating unit.
- c. Other Operation - Boiler Chemical Cleaning Waste. Evaporation of up to 150,000 gallons per year, total at the facility, is allowed of non-hazardous, but potentially hazardous air pollutant (HAP)-emitting, mineral acid solution boiler chemical cleaning waste which was generated on site.
- d. Other Operation - Beneficiated, or Refined, Coal Residual. The total amount of beneficiated, or refined, coal residual fired at Big Bend Station (all Unit Nos. 1 - 4 combined) shall be limited to 500 tons per day. The beneficiated, or refined, coal residual results from using the beneficiated process to wash and screen the raw coal residual to remove fines and oversized materials. This beneficiation process shall be performed at Polk Power Station, not Big Bend Station.
- e. Other Operation - Raw Coal Residual. The total amount of raw coal residual fired at Big Bend Station (all Unit Nos. 1 - 4 combined) shall be limited to 200 tons per day. The raw coal residual is a by-product of the gasification of coal at the Polk Power Station. At the time of the issuance of permit 0570039-012-AC on October 4, 2001, there were approximately 100,000 tons of raw coal residual stored at Polk Power Station. Once this raw coal residual pile has been fired, the permittee shall only fire raw coal residual in the event of a significant beneficiation process malfunction. The permittee shall document all beneficiation process malfunctions and record the amount of raw coal residual, if any, fired at Big Bend Station. These records should be kept on site at Big Bend and made readily available to the Department and the Environmental

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units -001, -002 & -003

Protection Commission of Hillsborough County upon request. No coal residual shall be fired in any Unit when the corresponding scrubber is not in operation.

- f. Other Operation – Magnesium Oxide. Supplemental injection of liquid magnesium oxide as needed to reduce upper furnace pluggage.
- g. Daily Log. The permittee shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values. [Rules 62-4.160(2), 62-210.200, 62-213.410, 62-213.440(1) and 62-4.070(1) & (3), F.A.C.; and, Permit No. 0570039-012-AC.]

{Permitting note: "Flame stabilization" is defined as the use of new No. 2 fuel oil to stabilize a flame during times of unexpected poor coal quality or equipment failure such as coal piping pluggage. Flame stabilization due to poor coal quality occurs when coal is wet or does not provide the necessary heat to maintain a stable flame. In this situation, new No. 2 fuel oil is combusted to provide the additional required heat input to maintain a stable flame. Flame stabilization due to equipment failure occurs when coal piping is plugged, or equipment is otherwise damaged, that results in an inconsistent amount of coal reaching the burners. Under certain conditions, this may result in the burners intermittently seeing large amounts of fuel at one time, causing a potentially explosive flame "puff". In this situation, new No. 2 fuel oil must be used for stabilization to prevent flame "puffing" and ensure safe operation. Combustion of No. 2 fuel oil is also necessary during periods of load change to initialize and stabilize the flame until coal flow to the burners reaches steady state. As defined in 62-210.700(3), F.A.C., load change occurs when the operational capacity of a unit is in the 10 to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.}

Air Pollution Control Technologies and Measures

- A.5. FGD Operation Required for Petcoke and Coal Residual.** Whenever Unit Nos. 1 or 2 is fired with petcoke in any amount up to the allowable percentage, or any amount of coal residual, its flue gases shall be directed to the FGD system for Unit Nos. 1 and 2. [Permit Nos. 0570039-003-AC, 0570039-004-AC and 0570039-012-AC.]

- A.6. Limit on Petcoke Bunkering.** The owner or operator at any given time shall not bunker more than the amount of petcoke that may be fired in each emissions Unit No. 1 or No. 2 in one day. [0570039-003-AC and 0570039-004-AC]

{Permitting Note: This condition is intended to limit possible excess emissions in the event of an unexpected breakdown of the FGD system that requires its shutdown while either emissions unit is firing petcoke.}

- A.7. Low NO_x Burners (LNB).** Unit Nos. 1, 2 and 3 shall be operated using the low NO_x burners and in accordance with the operational procedures that have been developed to minimize NO_x emissions. [Permit No. 0570039-014-AC.]

- A.8. Selective Catalytic Reduction (SCR) System.** The permittee shall operate and maintain the selective catalytic reduction (SCR) systems for nitrogen oxides (NO_x) control on Unit Nos. 3 and 2. [Permit Nos. 0570039-022-AC (amended by 0570039-035-AC) and 0570039-024-AC.]

{Permitting Note: Selective catalytic reduction (SCR) systems have been or are being installed under the following schedule:

Unit No. 3 - started up on April 24, 2008, as authorized by Permit No. 0570039-022-AC;

Unit No. 2 - started up on April 30, 2009, as authorized by Permit No. 0570039-024-AC; and,

Unit No. 1 - to be installed in 2010, as authorized by Permit No. 0570039-024-AC.}

- A.9. SCR System.** The permittee shall operate and maintain each SCR system in accordance with the SCR system supplier's recommendations, including operating the SCR between minimum and maximum operating temperatures. [Rule 62-4.070(1) & (3), F.A.C.; and, Permit Nos. 0570039-022-AC (amended by 0570039-035-AC) and 0570039-024-AC.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units -001, -002 & -003

A.10. SCR System. Each partial SCR system maintenance bypass duct shall be normally closed except during maintenance periods. [Rule 62-4.070(1) & (3), F.A.C.; and, Permit Nos. 0570039-022-AC (amended by 0570039-035-AC) and 0570039-024-AC.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **A.11. - A.25.** are based on the specified averaging time of the applicable test method.

Visible Emissions (VE)

A.11. VE. Visible emissions from each unit shall not exceed 20 percent opacity, except for one six-minute period per hour during which opacity shall not exceed 27 percent. Emissions units governed by this visible emissions limit shall compliance test for particulate matter emissions annually and as otherwise required by Chapter 62-297, F.A.C. [Rule 62-296.405(1)(a), F.A.C.]

A.12. VE - Soot Blowing and Load Change. Visible emissions from each unit shall not exceed 60 percent opacity during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed for boiler cleaning and load changes, at units which have installed continuous opacity monitors (COMS). [Rule 62-210.700(3), F.A.C.]

Particulate Matter (PM) Emissions

A.13. PM Emissions. Particulate matter emissions from each unit shall not exceed 0.03 pounds per million Btu heat input. [Rules 62-296.405(1)(b) and 62-213.440(1), F.A.C.; Consent Final Judgment (DEP vs. TECO) dated December 16, 1999; Consent Decree (U.S. vs. TECO) dated February 29, 2000; and U.S. EPA letter of approval of two plans (BOP and BACT) for control of particulate matter emissions dated June 19, 2003.]

{Permitting Note: The Consent Final Judgment and/or the Consent Decree as amended; which are a part of this permit, supersede the SIP PM limit of 0.1 pounds per million Btu heat input from Rule 62-296.405(1)(b), F.A.C.}

A.14. PM Emissions. The maximum particulate matter emission rate for each unit is as follows:

Unit No.	lbs./hour	tons/yr
1	121.1	530
2	119.9	525
3	123.5	541

In the event that a heat input rate for a unit is reduced, the maximum permitted particulate matter emission rate for that unit shall also be reduced accordingly. [Rule 62-296.700(4)(b)1. (PM RACT - lbs./hour & tons/yr), F.A.C.; Consent Final Judgment (DEP vs. TECO) dated December 16, 1999; Consent Decree (U.S. vs. TECO) dated February 29, 2000; and EPA letter of approval of two plans (BOP and BACT) for control of particulate matter emissions dated June 19, 2003.]

A.15. PM Emissions - Unit Nos. 1 - 4. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Fossil Fuel Fired Steam Generator Unit Nos. 1 - 4 shall not exceed an annual emissions cap of 2,767 tons/year of PM/PM₁₀. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility. [Rule 62-212.400 (escape Prevention of Significant Deterioration (PSD)), F.A.C.; and, Permit No. 0570039-012-AC.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units -001, -002 & -003

A.16. PM - Soot Blowing and Load Change. Particulate matter emissions from each unit shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.]

Sulfur Dioxide (SO₂) Emissions

A.17. SO₂ - Liquid Fuel. When burning liquid fuel, sulfur dioxide emissions from each unit shall not exceed 2.75 pounds per million Btu heat input, as measured by applicable compliance methods. [Rule 62-296.405(1)(c)1.j., F.A.C.]

A.18. SO₂ - Sulfur Content. The No. 2 fuel oil sulfur content from each unit shall not exceed 0.5 percent, by weight. [Rule 62-296.405(1)(e)3., F.A.C.; and, Applicant Request.]

A.19. SO₂ - Solid Fuel.

a. **SIP Limits.** Unit Nos. 1, 2 and 3, each shall not emit more than 6.5 pounds of sulfur dioxide per million Btu heat input on a two-hour average; nor shall Unit Nos. 1, 2 and 3, in total, emit more than 31.5 tons per hour of sulfur dioxide on a three-hour average and 25 tons per hour of sulfur dioxide on a 24-hour block average (midnight to midnight). [Rules 62-296.405(1)(c)2.b. and 3., F.A.C.; and, Rule 62-204.240(1), F.A.C.]

(1) Unit Nos. 1 and 2, in total, shall not emit more than 16.5 tons per hour of sulfur dioxide on a 24-hour block average. [Rules 62-296.405(1)(c)2.b. and 3., F.A.C.; and, Rule 62-204.240(1), F.A.C.]

(2) Unit No. 3 shall not emit more than 8.5 tons per hour of sulfur dioxide on a 24-hour block average.

[Rules 62-296.405(1)(c)2.b. and 3., F.A.C.; and, Rule 62-204.240(1), F.A.C.]

A.20. SO₂ Emissions - Unit Nos. 1 - 4. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Fossil Fuel Fired Steam Generator Unit Nos. 1 - 4 shall not exceed an annual emissions cap of 71,810 tons per year of SO₂. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility. [Rule 62-212.400 (escape Prevention of Significant Deterioration (PSD)), F.A.C.; and, Permit No. 0570039-012-AC.]

A.21. SO₂ Emissions - Unit Nos. 1 - 2. When combusting solid fuels, Unit Nos. 1 and 2, each shall meet at least one of the following limits:

a. the scrubber shall remove at least 95% of the SO₂ in the flue gas that entered the scrubber; or,

b. **on and after January 1, 2013**, the "emission rate" for SO₂ does not exceed 0.25 pounds per million Btu heat input on a 30-day rolling average. The term "emission rate" is specifically defined in the Consent Decree.

[Consent Decree (U.S. vs. TECO) dated February 29, 2000, amendments dated October 23, 2000 and June 12, 2009.]

A.22. SO₂ Emissions - Unit No. 3. When combusting solid fuels, Unit No. 3 shall meet at least one of the following limits:

a. the scrubber shall remove at least 95% of the SO₂ in the flue gas that entered the scrubber; or,

b. the "emission rate" for SO₂ does not exceed 0.25 pounds per million Btu heat input on a 30-day rolling average. The term "emission rate" is specifically defined in the Consent Decree.

[Consent Decree (U.S. vs. TECO) dated February 29, 2000, amendments dated October 23, 2000 and June 12, 2009.]

Nitrogen Oxides (NO_x) Emissions

A.23. Nitrogen Oxides (NO_x) Emissions - Unit Nos. 1 and 2. **On and after June 1, 2010**, NO_x emissions (reported as NO₂) from Unit No. 1 when combusting solid fuel, shall not exceed 0.12 lb NO_x/million Btu heat input on a heat input weighted 30 boiler operating day rolling average basis {calculated equivalent NO_x

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Units -001, -002 & -003

emissions from Unit No. 1 are 484.4 lb/hr and 2,121.9 TPY}. NO_x emissions (reported as NO₂) from Unit No. 2 when combusting solid fuel, shall not exceed 0.12 lb NO_x/million Btu heat input on a heat input weighted 30 boiler operating day rolling average basis {calculated equivalent NO_x emissions from Unit No. 2 are 479.5 lb/hr and 2,100.3 TPY}. These emission limits are based on the definition of "emission rate" so that an equation is used that divides total pounds of NO_x by total heat input in each 30-day period to reach a 30-day rolling average. These standards apply at all times except during periods of startup, shutdown, malfunction or abnormal events. [Consent Decree (U.S. vs. TECO) dated February 29, 2000, amendment dated June 12, 2009; and, Permit No. 0570039-024-AC.]

- A.24. Nitrogen Oxides (NO_x) Emissions - Unit 3.** NO_x emissions (reported as NO₂) from Unit No. 3 when combusting solid fuel, shall not exceed 0.12 lb NO_x/million Btu heat input on a heat input weighted 30 boiler operating day rolling average basis {calculated equivalent NO_x emissions from Unit No. 3 are 494 lb/hr and 2,163.7 TPY}. These emission limits are based on the definition of "emission rate" so that an equation is used that divides total pounds of NO_x by total heat input in each 30-day period to reach a 30-day rolling average. These standards apply at all times except during periods of startup, shutdown, malfunction or abnormal events. [Consent Decree (U.S. vs. TECO) dated February 29, 2000, amendment dated June 12, 2009; and, Permit No. 0570039-022-AC (amended by 0570039-035-AC).]

{Permitting Note: The Consent Decree as amended; which is a part of this permit, supersedes the SIP NO_x limit of 0.70 pounds per million Btu heat input from Rules 62-296.405(1)(d)4. and 62-296.405(1)(e)4., F.A.C.}

- A.25. Ammonia Slip.** Ammonia slip, measured at the stack downstream of all emissions control systems, shall not exceed 10 parts per million by volume (ppmv). Annual testing of ammonia slip shall be conducted, and corrective measures taken if measured values exceed 5 ppmv. [Rule 62-4.070(1) & (3), F.A.C.; and, Permit Nos. 0570039-022-AC (amended by 0570039-035-AC) and 0570039-024-AC.]

Excess Emissions

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

- A.26. Excess Emissions Allowed - Malfunctions.** Excess emissions resulting from malfunction 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. [Rule 62-210.700(1), F.A.C.]
- A.27. Excess Emissions Allowed - Startup And Shutdown.** Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]
- A.28. Best Operational Practices to Minimize Excess Emissions.** The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in **Appendix BOP, Best Operational Practices for Start up and Shutdown**. [Rules 62-210.700(2) and 62-213.440(1) (Operational Requirements that Assure Compliance), F.A.C.; and, Proposed by the Applicant in the Renewal Application.]
- A.29. Excess Emissions Prohibited.** 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.]

Monitoring of Operations

- A.30. Monitoring of Petcoke Usage.** The permittee shall operate and maintain equipment to record and calculate the weight percentage of petcoke and coal bunkered and fired in each emissions unit, to verify

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compliance with the bunkering limit and the percentage limitation on petcoke usage of this permit. [Rule 62-4.070(1) & (3), F.A.C.]

Monitoring Requirements

{Permitting Note: In accordance with the Acid Rain Phase II requirements, the following continuous monitors are installed on these units: opacity, SO₂, NO_x, CO₂ and stack gas flow.}

- A.31. Continuous Monitoring Systems.** These emissions units shall operate and maintain continuous monitoring systems for monitoring opacity, SO₂, NO_x and CO₂. [Rule 62-296.405(1)(f)1., F.A.C.]
- A.32. Operation and Maintenance Plan.** An Operation and Maintenance Plan required under RACT for PM is attached and a part of this permit pursuant to Rule 62-296.700(6), F.A.C. All activities shall be performed as scheduled and recorded data made available to the Department upon request. Records shall be maintained on file for a minimum of five (5) years. **Appendix O&M, Operation and Maintenance Plan under RACT for PM,** is attached as part of this permit. [Rule 62-296.700(6), F.A.C.]
- A.33. CAM Plan.** These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM for the controlled emissions of particulate matter. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Continuous Emissions Monitoring Systems (CEMS)

- A.34. CEMS.** The continuous emissions monitoring systems shall meet the quality assurance requirements and performance specifications contained in 40 CFR 75. [Rule 62-296.405(1)(e)4., F.A.C.]
- A.35. SO₂ Compliance by CEMS.** The permittee shall demonstrate compliance with the sulfur dioxide limits by means of continuous emissions monitoring systems (CEMS). In addition to any other requirements associated with the operation and maintenance of these CEMS (i.e., Acid Rain requirements), operation of the CEMS shall be in accordance with the requirements listed in this permit. The annual calibration RATA associated with these CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met, i.e., prior test notification, proper test result submittal, etc. [Rule 62-296.405(1)(f)1.b., F.A.C.; and, Applicant Request.]
- A.36. NO_x Compliance by CEMS.** Nitrogen oxides (NO_x) emissions from Unit Nos. 1, 2 and 3 shall be continuously monitored to confirm compliance, using the Unit's existing continuous emissions monitoring system (CEMS). Compliance is determined by calculating the heat input weighted average of all hourly emission rates for NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction, or abnormal events. "Abnormal events" are defined as an unanticipated interruption, malfunction, or failure of the pipeline or associated equipment utilized to supply ammonia to the Big Bend Station for use in the operation of the selective catalytic reduction control system. Excess emissions occurring from operation of the boilers during an abnormal event are authorized provided that best operational practices are employed to minimize the amount and duration of the emissions during an abnormal event. Emissions data collected during "abnormal events" may be excluded from the 30-day rolling compliance averages in accordance with this condition. For the purpose of calculating a 30-day rolling average, a boiler operating day is defined as a 24-hour period (between 12:01 a.m. and 12:00 midnight) during which fossil fuel is combusted in a steam operating unit for the entire 24-hours. [Rules 62-297.310(7)(a)2. and 4., and 62-4.070(1) & (3), F.A.C.; 40 CFR 60.46a(g); and, Permit Nos. 0570039-022-AC and 0570039-024-AC.]
- A.37. NO_x Compliance Schedule - Unit No. 1 and 2.** Compliance with the heat input weighted 30-day rolling average NO_x emission limit of 0.12 lb NO_x/MMBtu shall be demonstrated using CEMS data beginning **May 31, 2010** (or 30 boiler operating days after **May 1, 2010**), for Unit No. 1, and beginning **May 31, 2009** (or 30

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boiler operating days after **May 1, 2009**), for Unit No. 2, and every 30 boiler operating days thereafter. [Permit No. 0570039-022-AC (amended by 0570039-035-AC).]

- A.38. NO_x Compliance - Unit No. 3.** For Unit No. 3, compliance with the heat input weighted 30-day rolling average NO_x emission limit of 0.12 lb NO_x/MMBtu shall be demonstrated using CEMS data every 30 boiler operating days. [Permit No. 0570039-022-AC (amended by 0570039-035-AC).]
- A.39. SO₂ and NO_x CEMS and COMS.** For Unit Nos. 1, 2 and 3, the permittee shall operate, calibrate, and maintain a continuous monitoring system for continuously monitoring opacity. For Unit Nos. 1 - 3, the permittee shall also operate calibrate, and maintain a continuous monitoring system for continuously monitoring nitrogen oxides (expressed as NO₂). In addition, the permittee shall operate calibrate, and maintain a continuous monitoring system for continuously monitoring sulfur dioxide for Unit Nos. 1, 2, and 3 in a manner sufficient to demonstrate compliance with the emission limits of this permit. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR Part 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800(2), F.A.C., and 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C. [Rule 62-296.405(1)(f), F.A.C.]
- A.40. O₂/CO₂ Continuous Monitoring System.** An oxygen or carbon dioxide continuous monitoring system shall be operated for Unit Nos. 1 - 3. Measurements of oxygen or carbon dioxide in the flue gas shall be utilized to convert nitrogen oxides and sulfur dioxide continuous emission monitoring data to units of pounds per million BTU heat input for proof of compliance. [Rule 62-296.405(1)(f)1.d., F.A.C.]
- A.41. Continuous Monitor Performance Specifications.** If continuous monitoring systems are required by rule or are elected by the permittee to be used for demonstrating compliance with the standards of the Department, they must be installed, maintained and calibrated, either:
- a. in accordance with the EPA performance specifications listed below. These performance specifications are contained in 40 CFR 60, Appendix B, and are adopted by reference in Rule 62-204.800, F.A.C.
 - (1) Performance Specification 1--Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.
 - (2) Performance Specification 2--Specifications and Test Procedures for SO₂ Continuous Emission Monitoring Systems in Stationary Sources.
 - (3) Performance Specification 3--Specifications and Test Procedures for CO₂ Continuous Emission Monitoring Systems in Stationary Sources. Or,
 - b. in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Excess emissions pursuant to Rule 62-210.700, F.A.C., shall be determined using the 40 CFR part 75 CEMS. [Rule 62-297.520, F.A.C.; 40 CFR 75; and, Applicant Request.]

Test Methods and Procedures

- A.42. Test Methods.** Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 5, 5B, 5F or 17	Methods for Determining Particulate Matter Emissions
EPA Methods 6, 6A, 6B or 6C	Methods for Determining Sulfur Dioxide Emissions
Method 7, 7A, 7C, 7D or 7E	Determination of Nitrogen Oxide Emissions
DEP Method 9	Visual Determination of the Opacity of Emissions

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Method(s)	Description of Method(s) and Comment(s)
EPA conditional test method (CTM-027), EPA Method 320	Methods for Determining Ammonia (NH ₃) Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

A.43. Annual Compliance Test. During each federal fiscal year (October 1st to September 30th), Emissions Unit ID Nos. -001, -002 and -003 shall be tested to demonstrate compliance with the emission limitations and standards for VE, VE-SB (VE while soot blowing), PM, particulate matter while soot blowing (PM-SB), NO_x and SO₂. The NO_x and SO₂ RATA test data may be used to demonstrate compliance with the annual test requirement, provided the testing requirements (notification, procedures and reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7), F.A.C.]

A.44. Compliance Test Prior To Renewal. Prior to permit renewal, Emissions Unit ID Nos. -001, -002 and -003 shall be tested to demonstrate compliance with the emission limitations and standards for VE, VE-SB, PM and PM-SB. [Rule 62-297.310(7)(a)3., F.A.C.]

A.45. 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.46. Visible Emissions. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. [Rule 62-296.405(1)(e)1., F.A.C.]

A.47. DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

- a. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
- b. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
 - (1) For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
 - (2) For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value. [Rule 62-297.405, F.A.C.]

A.48. Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For

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EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. [Rules 62-296.405(1)(e)2. and 62-297.405, F.A.C.]

- A.49. Sulfur Dioxide.** The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. [Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.405, F.A.C.]
- A.50. When burning Liquid Fuel - Compliance with Sulfur Limit.** **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery.** [Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.405, F.A.C.]
- A.51. Sulfur Content Sampling Methods.** The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91, or the respective successor ASTM method(s). [Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]
- A.52. Ammonia (NH₃) Slip Compliance.** Compliance with the ammonia (NH₃) slip limit shall be determined using EPA conditional test method (CTM-027), EPA Method 320, or other methods approved by the Department. [Rule 62-4.070(1) & (3), F.A.C.; and, Permit Nos. 0570039-022-AC (amended by 0570039-035-AC) and 0570039-024-AC.]

Special Testing Requirements

- A.53. PM and VE Compliance Testing.** Unit Nos. 1, 2 and 3 shall each be individually stack tested for particulate matter and visible emissions, under both sootblowing and non-sootblowing operation conditions. When testing emissions in the stack identified as CS0W1 or when testing in the stack identified as CS001, Unit No. 1 shall not be in operation during the compliance testing of Unit No. 2, and Unit No. 2 shall not be in operation during the compliance testing of Unit No. 1, but when testing in the ductwork between CS001 and the scrubber tower inlet, Unit No. 1 may operate during the compliance testing of Unit No. 2 and Unit No. 2 may operate during the compliance testing of Unit No. 1. [Rules 62-297.310(7)(a)2. and 4., and 62-4.070(1) & (3), F.A.C.]
- A.54. PM and VE Compliance Testing.** Compliance testing for particulate matter emissions and visible emissions may be conducted either: (a) without fly ash re-injections occurring, or (b) while fly ash collected by the electrostatic precipitator is being re-injected into the boiler at a rate which is representative of the maximum anticipated fly ash re-injection rate. If the most recent particulate and visible emission compliance tests were conducted without fly ash re-injection occurring, and fly ash re-injection occurs for any reason other than a malfunction, then the results from new particulate and visible emissions compliance tests, conducted while fly ash collected by the precipitator is being re-injected into the boiler at a rate which is representative of the maximum anticipated fly ash re-injection rate, shall be submitted to the EPCHC within 60 days of the date that such fly ash re-injection occurred. The EPCHC may, for good cause shown, grant an extension of the 60-day time limit on a case-by-case basis. [Rules 62-297.310(7)(a)2. & 4., and 62-4.070(1) & (3), F.A.C.]

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Recordkeeping and Reporting Requirements

A.55. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly Excess Emissions Rule 62-296.405(1)(g), F.A.C.	Every 3 months (quarterly)	A.57.
Quarterly SO ₂ Emissions	Every 3 months (quarterly)	A.58.
Quarterly NO _x Emissions	Every 3 months (quarterly)	A.59.

[Rule 62-296.405(1)(g), F.A.C.]

A.56. Reporting of Excess Emissions Due to Malfunctions. In the 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 or the appropriate Local Program. [Rule 62-210.700(6), F.A.C.]

A.57. Quarterly Excess Emissions Report. Submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the source for a period of five years. [Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

A.58. Quarterly SO₂ Report. The permittee shall submit a quarterly SO₂ report to the Department and the EPCHC within 30 days following each calendar quarter. The quarterly SO₂ report shall consist of:

- a. 2-hour average SO₂ emissions for each Unit Nos. 1, 2 and 3 in lb/MMBtu;
- b. 3-hour average SO₂ emissions for Unit Nos. 1 - 3 combined in ton per hour;
- c. 24-hour average SO₂ emissions for Unit Nos. 1 - 3 combined in tons per hour; and,
- d. 24-hour average SO₂ emissions for Unit Nos. 1 - 2 combined and Unit 3 in tons per hour;
- e. daily SO₂ removal efficiency for Unit Nos. 1 - 3;
- f. 30-day rolling average SO₂ emissions for each Unit Nos. 1 - 3 in lb/MMBtu; and,
- g. a statement of CEMS and/or boiler malfunction, start-up, shutdown or abnormal events.

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

A.59. Quarterly NO_x Report. The permittee shall submit a quarterly NO_x report to the Department and the EPCHC within 30 days following each calendar quarter. This report shall contain the 30-day NO_x rolling average, all time periods of boiler operation as well as a statement of CEMS and/or boiler malfunction, start-up, shutdown or abnormal events. [Rules 62-296.405(1)(g) and 62-4.070(1) & (3), F.A.C.]

A.60. Records of Operation. The owner or operator shall make and maintain a daily record of operation of each emissions unit showing the date, fuel(s) used, whether flue gas was directed to the FGD system, and the duration of all startups, shutdowns and malfunctions. Records of fuel bunkering and petcoke usage (weight percent of petcoke fired) shall also be made on at least a daily basis. Data that verifies compliance with the percentage limitation on petcoke usage shall be submitted with the annual operating report. [Rules 62-213.440(1) (Monitoring) and 62-4.070(1) & (3), F.A.C.]

A.61. Records. For Unit Nos. 1 - 3, gravimetric instrument data verifying that the 20.0% maximum petroleum coke content by weight has not been exceeded shall be maintained for two years and submitted to the Department and the EPCHC with each annual operating report (AOR). Also to be maintained and available for inspection shall be a record of operation showing the date, fuel used, and the duration of all startups, shutdowns, malfunctions and abnormal events. [Rules 62-213.440(1) (Monitoring) and 62-4.070(1) & (3), F.A.C.]

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- A.62. Continuous Emission Monitoring Network and Alarms.** To demonstrate compliance with emission limits that are protective of ambient air quality standards (AAQS), data inputs will consist of hourly CEMS data from the SO₂, flow and CO₂ monitors for Unit Nos. 1 - 3 at Big Bend Station. The permittee shall use CEMS data from common stack CS0W1 and/or CS001 to represent unit compliance with the emission limitations for each Unit 1 and Unit 2. In the event any monitor fails, the permittee will comply with 40 CFR 75, Subpart D - Missing Data Substitution Procedures. [Rules 62-213.440(1) (Monitoring) and 62-4.070(1) & (3), F.A.C.; and, Applicant Request.]
- A.63. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

Other Requirements

- A.64. Settlement Agreements.** These emissions units shall comply with the requirements contained in the Consent Final Judgment (DEP vs. TECO) dated December 16, 1999 and the Consent Decree (U.S. vs. TECO) dated February 29, 2000, including the amendments dated October 23, 2000 and June 12, 2009, attached as a part of this permit as **Appendices CFJ** and **CD**, respectively. [Rules 62-4.070(1), (3) & (5) and 62-213.440, F.A.C.; and, Permit No. 0570039-014-AC.]
- A.65. Compliance Plan - Unfinished Work and/or Activities for Unit Nos. 1 - 3.**
- a. The actions applicable to Unit Nos. 1 - 3 specified in **Appendix CP-1** have not yet been completed under the Consent Decree.
 - b. Unit No. 2 was required to demonstrate compliance with the emission limiting standards (NO_x and NH₃ slip) as specified in Permit No. 0570039-024-AC by **April 30, 2009**.
 - i. Operation of this emissions unit beyond the time frames established by the air construction (AC) permit is allowed, provided the Department has received and verified properly signed and sealed certification statements from the Responsible Official (R.O.) and a licensed Florida Professional Engineer (P.E.) stating that: 1) the modifications of the emissions unit were completed in accordance with the AC permit; and, 2) the emissions unit has tested and compliance with the terms and conditions contained within the AC permit have properly been demonstrated.
 - ii. The P.E. and R.O. certification statements from DEP Form No. 62-210.900(1) shall be used and must be submitted to the Department no later than 180 days after initial start-up of the emissions unit with the SCR system. [Rules 62-213.440(2) and 62-213.420(1)(a)5., F.A.C.]
 - c. Compliance with the emission limiting standards (NO_x and NH₃ slip) as specified in Permit No. 0570039-024-AC shall be determined by **April 30, 2010**, for Unit No. 1.
 - i. Operation of this emissions unit beyond the time frames established by the air construction (AC) permit is allowed, provided the Department has received and verified properly signed and sealed certification statements from the Responsible Official (R.O.) and a licensed Florida Professional Engineer (P.E.) stating that: 1) the modifications of the emissions unit were completed in accordance with the AC permit; and, 2) the emissions unit has tested and compliance with the terms and conditions contained within the AC permit have properly been demonstrated.
 - ii. The P.E. and R.O. certification statements from DEP Form No. 62-210.900(1) shall be used and must be submitted to the Department no later than 180 days after initial start-up of the emissions unit with SCR system. [Rules 62-213.440(2) and 62-213.420(1)(a)5., F.A.C.]
- [Rule 62-213.440(2), F.A.C.; Permit No. 0570039-024-AC; and, Consent Decree (U.S. vs. TECO) dated February 29, 2000, including the amendments dated October 23, 2000 and June 12, 2009.]

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Subsection B. Emissions Unit -004

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

E.U. ID No.	Brief Description
-004	Fossil Fuel Fired Steam Generator Unit No. 4

Fossil Fuel Fired Steam Generator Unit No. 4 is a 4330 MMBTU/hour, dry-bottom tangentially fired utility boiler manufactured by Combustion Engineering. The generator nameplate capacity is 486 MW. Particulate matter emissions generated during the operation of the unit are controlled by a dry electrostatic precipitator (ESP) manufactured by Belco. The control efficiency of the ESP is 99.7%. Sulfur dioxide emissions from Unit No. 4 are controlled by wet flue gas desulfurization (FGD) equipment installed in 1995 and manufactured by Research-Cottrell. NO_x emissions from Unit No. 4 are controlled by low NO_x burners (LNB), a separate overfire air system (SOFA) and its own selective catalytic reduction (SCR) system. The SCR system on Unit No. 4 was installed in 2007. The fuel fired in Unit No. 4 consists of coal, or a coal/petroleum coke blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station. Unit No. 4 began commercial operation in 1985. The Unit No. 4 stack (stack identification BB-004) parameters are: height, 490 feet; diameter, 24.0 feet; exit temperature, 127 degrees F; and, actual stack gas flow rate, 1,614,250 acfm.

{Permitting note(s): Fossil Fuel Fired Steam Generator Unit No. 4 is regulated under the federal Acid Rain Program for Phase II SO₂ and NO_x; Rule 62-296.405(2), F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input; NSPS - 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(8)(b)2., F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD-FL-040]; Power Plant Siting Certification [PA 79-12]; Rule 62-296.700(6), F.A.C., RACT PM - O&M Plan; Compliance Assurance Monitoring (CAM), adopted and incorporated by reference in Rule 62-204.800, F.A.C.; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR). This emissions unit is also regulated under a Consent Final Judgment (DEP vs. TECO) dated December 16, 1999 and a Consent Decree (U.S. vs. TECO) dated February 29, 2000, including amendments.}

Essential Potential to Emit (PTE) Parameters

B.1. Hours of Operation. This emissions unit may operate continuously (8760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.)]

B.2. Permitted Capacity. The maximum heat input rate is as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>
4	4,330

[Rules 62-4.160(2), 62-210.200 (Definitions - PTE); and, 62-296.405(1), F.A.C.; PSD-FL-40; and, Permit No. 0570039-014-AC (Unit Nos. 1 - 4).]

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.]

B.4. Methods of Operation.

- a. **Fuels - Normal Operation.** The only fuels allowed to be burned in Unit No. 4 shall consist of coal, or a coal/petroleum coke blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station. In any case, the petroleum coke content of any fuel blend shall not exceed 20% by weight. The vanadium content of the petroleum coke fired shall not exceed 2660 ppm vanadium. The ash content of the petroleum coke fired shall not exceed 0.76% by weight on a dry basis. Coal shall not be burned in Unit No. 4 unless both the electrostatic precipitator and the limestone scrubber are operating properly.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -004

- b. Fuels - Startup, Shutdown, Flame Stabilization. In addition to the fuels allowed to be burned during normal operation, Unit No. 4 may also burn new No. 2 fuel during startup, shutdown, flame stabilization and during the start of an additional solid fuel mill on an already operating unit.
- c. Other Operation - Boiler Chemical Cleaning Waste. Evaporation of up to 150,000 gallons per year, total at the facility, is allowed of non-hazardous, but potentially hazardous air pollutant (HAP)-emitting, mineral acid solution boiler chemical cleaning waste which was generated on site.
- d. Other Operation - Beneficiated, or Refined, Coal Residual. Beneficiated, or refined, coal residual: The total amount of beneficiated, or refined, coal residual fired at Big Bend Station (all Unit Nos. 1 - 4 combined) shall be limited to 500 tons per day. The beneficiated, or refined, coal residual results from using the beneficiated process to wash and screen the raw coal residual to remove fines and oversized materials. This beneficiation process shall be performed at Polk Power Station, not Big Bend Station.
- e. Other Operation - Raw Coal Residual. Raw coal residual: The total amount of raw coal residual fired at Big Bend Station (all Unit Nos. 1 - 4 combined) shall be limited to 200 tons per day. The raw coal residual is a by-product of the gasification of coal at the Polk Power Station. The permittee shall only fire raw coal residual in the event of a significant beneficiation process malfunction. The permittee shall document all beneficiation process malfunctions and record the amount of raw coal residual, if any, fired at Big Bend Station. These records should be kept on site at Big Bend and made readily available to the Department and the Environmental Protection Commission of Hillsborough County upon request. No coal residual shall be fired in any Unit when the corresponding scrubber is not in operation.
- f. Other Operation – Magnesium Oxide. Supplemental injection of liquid magnesium oxide as needed to reduce upper furnace pluggage.
- g. Daily Log. The permittee shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values.

[Rules 62-4.160(2), 62-210.200, 62-213.410, 62-213.440(1) and 62-4.070(1) & (3), F.A.C.; PSD-FL-040; Permit Nos. 0570039-012-AC and 0570039-016-AC; and, Power Plant Siting Certification PA 79-12.]

{Permitting note: "Flame stabilization" is defined as the use of No. 2 fuel oil to stabilize a flame during times of unexpected poor coal quality or equipment failure such as coal piping pluggage. Flame stabilization due to poor coal quality occurs when coal is wet or does not provide the necessary heat to maintain a stable flame. In this situation, No. 2 fuel oil is combusted to provide the additional required heat input to maintain a stable flame. Flame stabilization due to equipment failure occurs when coal piping is plugged, or equipment is otherwise damaged, that results in an inconsistent amount of coal reaching the burners. Under certain conditions, this may result in the burners intermittently seeing large amounts of fuel at one time, causing a potentially explosive flame "puff". In this situation, No. 2 fuel oil must be used for stabilization to prevent flame "puffing" and ensure safe operation. Combustion of No. 2 fuel oil is also necessary during periods of load change to initialize and stabilize the flame until coal flow to the burners reaches steady state. As defined in 62-210.700(3), F.A.C., load change occurs when the operational capacity of a unit is in the 10 to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.}

Air Pollution Control Technologies and Measures

- B.5. Operating Procedures**. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).]
- B.6. Circumvention**. The owner or operator shall not circumvent the air pollution control equipment nor operate the SCR system equipment in such a manner which would violate allowable emission rates stated herein, notwithstanding the SCR system supplier's recommendations. [Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC); and, Rule 62-210.650, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -004

- B.7. Future Actual Emissions Reporting.** The permittee shall maintain and submit to the Department on an annual basis for a period of 5 years from the date the duct work separation initiative is placed in operation, information demonstrating in accordance with Rule 62-212.300(1)(e), F.A.C., using the emissions computation and reporting procedures in Rule 62-210.370, F.A.C., that the implementation of the initiative did not result in an emissions increase of SO₂ that would equal or exceed the respective significant emission rate as defined in Rule 62-210.200, F.A.C. [Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC); and, Rule 62-212.300(1)(e), F.A.C.]
- B.8. Low NO_x Burners (LNB).** Unit No. 4 shall be operated using the low NO_x burners and in accordance with the operational procedures that have been developed to minimize NO_x emissions. [Permit No. 0570039-014-AC.]
- B.9. Separate Overfire Air System (SOFA).** Unit 4 shall be operated using the separate overfire air system (SOFA) and in accordance with the operational procedures that have been developed to minimize NO_x emissions. [Permit No. 0570039-014-AC.]
- B.10. LNB and SOFA Systems.** The permittee shall adhere to good combustion practices to achieve the BACT CO emissions limits. [PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC).]
- B.11. Selective Catalytic Reduction (SCR) System.** The permittee shall operate and maintain the selective catalytic reduction (SCR) systems for nitrogen oxides (NO_x) control on Unit No. 4. [Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).]
- {Permitting Note: A selective catalytic reduction (SCR) system has been installed under the following schedule:*
- a. Unit No. 4 - started up in 2007, as authorized by Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).}*
- B.12. SCR System.** The permittee shall operate and maintain each SCR system in accordance with the SCR system supplier's recommendations, including operating the SCR system between minimum and maximum operating temperatures. [Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).]
- B.13. SCR System.** The partial SCR system maintenance bypass duct shall be normally closed except during maintenance periods. [Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **B.14. - B.23.** are based on the specified averaging time of the applicable test method.

Visible Emissions (VE)

- B.14. VE.** Visible emissions from Unit No. 4 shall not exceed 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [Rule 62-204.800(8)(b)2., F.A.C.; 40 CFR 60.42Da(b); PSD-FL-040; and, Rule 62-296.405(2)(a), F.A.C.]

Particulate Matter (PM) Emissions

- B.15. PM Emissions.** Particulate matter emissions shall not exceed 0.01 pounds per million Btu heat input when burning solid or liquid fuel. This standard applies at all times except during periods of startup, shutdown, or malfunction. [Rule 62-204.800(8)(b)2., F.A.C.; 40 CFR 60.42Da(a); Rules 62-296.405(2)(b) and 62-213.440(1), F.A.C.; Consent Final Judgment (DEP vs. TECO) dated December 16, 1999; Consent Decree (U.S. vs. TECO) dated February 29, 2000; and U.S. EPA letter of approval of two plans (BOP and BACT) for control of particulate matter emissions dated June 19, 2003.]

{Permitting Note: The Consent Final Judgment and/or the Consent Decree as amended; which are a part of this permit, supersede the NSPS 40 CFR 60 Subpart Da PM limit of 0.03 pounds per million Btu heat input.}

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -004

B.16. PM Emissions. The maximum particulate matter emission rate for this unit is as follows:

Unit No.	lbs./hour	tons/yr
4	43.3	189.7

In the event that a heat input rate for this unit is reduced, the maximum permitted particulate matter emission rate for this unit shall also be reduced accordingly. [Rule 62-296.700(4)(b)1. (PM RACT - lbs./hour & tons/yr), F.A.C.; Consent Final Judgment (DEP vs. TECO) dated December 16, 1999; Consent Decree (U.S. vs. TECO) dated February 29, 2000; and EPA letter of approval of two plans (BOP and BACT) for control of particulate matter emissions dated June 19, 2003.]

B.17. PM Emissions - Unit Nos. 1 - 4. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Fossil Fuel Fired Steam Generator Unit Nos. 1 - 4 shall not exceed an annual emissions cap of 2,767 tons/year of PM/PM₁₀. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility. [Rule 62-212.400 (escape Prevention of Significant Deterioration (PSD)), F.A.C.; and, Permit No. 0570039-012-AC.]

Sulfur Dioxide (SO₂) Emissions

B.18. SO₂ Emissions. Sulfur dioxide emissions from Unit No. 4 when combusting solid fuel shall not exceed 0.82 lb/million Btu heat input and 10 percent of the potential combustion concentration (90 percent reduction). Based upon a heat input of 4,330 million Btu/hour, SO₂ emissions shall not exceed 3,551 lb/hr and 15,553.4 tons/yr. [Rule 62-204.800(8)(b)2., F.A.C.; 40 CFR 60.43Da(a)(1); PSD-FL-040; and, Rules 62-296.405(2)(c) and 62-213.440(1), F.A.C.;

B.19. SO₂ Emissions. Compliance with the sulfur dioxide emission limitations and percent reduction requirements is determined on a 30-day rolling average basis. [Rule 62.204.800(8)(b)2., F.A.C.; 40 CFR 60.43Da(g).]

B.20. SO₂ Emissions - Unit Nos. 1 - 4. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Fossil Fuel Fired Steam Generator Unit Nos. 1 - 4 shall not exceed an annual emissions cap of 71,810 tons per year of SO₂. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility. [Rule 62-212.400 (escape Prevention of Significant Deterioration (PSD)), F.A.C.; and, Permit No. 0570039-012-AC.]

Nitrogen Oxides (NO_x) Emissions

B.21. Nitrogen Oxides (NO_x) Emissions - Unit 4. Unit No. 4 when combusting solid fuel, shall not emit more than 0.10 of a pound of nitrogen oxides per million Btu heat input based upon a 30-day rolling average {calculated equivalent NO_x emissions are 433 lb/hr and 1,896.5 TPY}. These emission limits are based on the definition of "emission rate" so that an equation is used that divides total pounds of NO_x by total heat input in each 30-day period to reach a 30-day rolling average. These standards apply at all times except during periods of startup, shutdown, malfunction or abnormal events. [Consent Final Judgment (DEP vs. TECO) dated December 16, 1999; Consent Decree (U.S. vs. TECO) dated February 29, 2000, amendment dated June 12, 2009; E-mail memorandum from EPA received on September 15, 2005; Rule 62-204.800(8)(b)2., F.A.C.; 40 CFR 60.44Da(a); 40 CFR 60.44Da(c); Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC); and, PSD-FL-040.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -004

{Permitting Note: The Consent Final Judgement and/or the Consent Decree as amended; which are part of this permit, are sufficient to also comply with the PSD and NSPS 40 CFR 60 Subpart Da NO_x limit of 0.60 pounds per million Btu heat input from 40 CFR 60.44a(a).}

- B.22. Ammonia Slip.** Ammonia slip, measured at the stack downstream of all emissions control systems, shall not exceed 10 parts per million by volume (ppmv). Annual testing of ammonia slip shall be conducted, and corrective measures taken if measured values exceed 5 ppmv. [Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).]

Carbon Monoxide (CO) Emissions

- B.23. Carbon Monoxide (CO) Emissions - Unit No. 4.** CO emissions from Unit 4 shall not exceed 0.20 pounds per million Btu heat input (lb/MMBtu) on a heat input weighted 30-boiler operating day rolling average as demonstrated by the required CO CEMS {calculated equivalent CO emissions are 866 lb/hr and 3,793.1 TPY}. [PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC); and, CO Optimization Study dated December 18, 2008.]

Excess Emissions

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

- B.24. Excess Emissions Allowed - Startup, Shutdown or Malfunction.** Excess emissions resulting from startup, shutdown or malfunction 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. [Rule 62-210.700(1), F.A.C.]
- B.25. Best Operational Practices to Minimize Excess Emissions.** The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in **Appendix BOP, Best Operational Practices for Start up and Shutdown**. [Rules 62-210.700(2) and 62-213.440(1) (Operational Requirements that Assure Compliance), F.A.C.; and, Proposed by the Applicant in the Renewal Application.]
- B.26. Excess Emissions Prohibited.** 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.]

Monitoring Requirements

{Permitting Note: In accordance with the Acid Rain Phase II requirements, the following continuous monitors are installed on this unit: opacity, SO₂, NO_x, CO₂ and stack gas flow.}

- B.27. Continuous Monitoring Systems.** This emissions unit shall operate and maintain continuous monitoring systems for monitoring opacity, SO₂, NO_x, CO¹ and CO₂. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.; and, ¹ PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC).]
- B.28. Operation and Maintenance Plan.** An Operation and Maintenance Plan required under RACT for PM is attached and a part of this permit pursuant to Rule 62-296.700(6), F.A.C. All activities shall be performed as scheduled and recorded data made available to the Department upon request. Records shall be maintained on file for a minimum of five (5) years. **Appendix O&M, Operation and Maintenance Plan under RACT for PM**, is attached as part of this permit. [Rule 62-296.700(6), F.A.C.]
- B.29. Continuous Monitoring Systems.** The permittee shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen and/or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -004

The sulfur dioxide, nitrogen dioxide, oxygen and/or carbon dioxide, and opacity monitoring devices shall meet the applicable requirements of Rule 62-214, F.A.C., 40 CFR 60.47Da., and 40 CFR 75.). The opacity monitor shall be placed in the duct work between the electrostatic precipitator and the FGD scrubber. The continuous monitoring system will measure sulfur dioxide emissions at the inlet of each unit and outlet of the FGD system and from the Unit 4 No. 4 stack (BB004), while emissions of nitrogen oxides, oxygen and/or carbon dioxide, and opacity shall be measured in the Unit No. 4 ducts prior to the FGD system. The emissions of nitrogen oxides and opacity shall be measured in the Unit 4 duct prior to the FGD system. The emissions of carbon dioxide and sulfur dioxide are both measured in the inlet and outlet ducts. [Rule 62-204.800(8)(b)2., F.A.C.; 40 CFR 60.47Da(d); and, PA 79-12D.]

- B.30. CAM Plan.** These emissions units are subject to the Compliance Assurance Monitoring (CAM) requirements contained in the attached Appendix CAM for the controlled emissions of particulate matter. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]
- B.31. Use of CO CEMS For Continuous Compliance.** Pursuant to 40 CFR 64.2(b)(1)(vi), the applicant has elected to use the existing certified CO continuous emissions monitoring system (CEMS) for continuous compliance in order to be exempt from the Compliance Assurance Monitoring (CAM) requirements contained in 40 CFR 64. [40 CFR 64.2(b)(vi); and, Applicant Request.]
- B.32. Emission Control Equipment Monitoring.** The permittee shall submit to the Department a standardized plan or procedure that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.; and, PA 79-12.]

Continuous Emissions Monitoring Systems (CEMS)

- B.33. CEMS.** The continuous emissions monitoring systems shall meet the quality assurance requirements and performance specifications contained in 40 CFR 75. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.]
- B.34. SO₂ Compliance by CEMS.** The permittee shall demonstrate compliance with the sulfur dioxide limits by means of continuous emissions monitoring systems (CEMS). In addition to any other requirements associated with the operation and maintenance of these CEMS (i.e., Acid Rain requirements), operation of the CEMS shall be in accordance with the requirements listed in this permit. The annual calibration RATA associated with these CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met, i.e., prior test notification, proper test result submittal, etc. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.; and, Applicant Request.]
- B.35. NO_x Compliance by CEMS.** Nitrogen oxides (NO_x) emissions shall be continuously monitored to confirm compliance, using the Unit's existing continuous emissions monitoring system (CEMS). Compliance is determined by calculating the heat input weighted average of all hourly emission rates for NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction, or abnormal events. "Abnormal events" are defined as an unanticipated interruption, malfunction, or failure of the pipeline or associated equipment utilized to supply ammonia to the Big Bend Station for use in the operation of the selective catalytic reduction control system. Excess emissions occurring from operation of the boilers during an abnormal event are authorized provided that best operational practices are employed to minimize the amount and duration of the emissions during an abnormal event. Emissions data collected during "abnormal events" may be excluded from the 30-day rolling compliance averages in accordance with this condition. For the purpose of calculating a 30-day rolling average, a boiler operating day is defined as a 24-hour period (between 12:01 a.m. and 12:00 midnight) during which fossil fuel is combusted in a steam operating unit for the entire 24-hours. [Rules 62-297.310(7)(a)2. and 4., and 62-4.070(1) & (3), F.A.C.; 40 CFR 60.46a(g); and, Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).]

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Subsection B. Emissions Unit -004

- B.36. NO_x Compliance.** Compliance with the heat input weighted 30-day rolling average NO_x emission limit of 0.10 lb NO_x/MMBtu shall be demonstrated using CEMS data every 30 boiler operating days. [Permit No. Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).]
- B.37. CO Compliance by CEMS.** Compliance with the 30-day rolling average CO emission limit shall be demonstrated using data collected from the required CO CEMS. [PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC).]
- B.38. CO CEMS - Appendix CEMS.** Additional requirements applicable to the CO CEMS are give in the attached **Appendix CEMS**, which is a part of this permit. [PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC).]
- B.39. SO₂ and NO_x CEMS and COMS.** The permittee shall operate, calibrate, and maintain a continuous monitoring system for continuously monitoring opacity. The permittee shall also operate calibrate, and maintain a continuous monitoring system for continuously monitoring nitrogen oxides (expressed as NO₂). In addition, the permittee shall operate calibrate, and maintain a continuous monitoring system for continuously monitoring sulfur dioxide in a manner sufficient to demonstrate compliance with the emission limits of this permit. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR Part 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800(2), F.A.C., and 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.]
- B.40. O₂/CO₂ Continuous Monitoring System.** An oxygen or carbon dioxide continuous monitoring system shall be operated. Measurements of oxygen or carbon dioxide in the flue gas shall be utilized to convert nitrogen oxides and sulfur dioxide continuous emission monitoring data to units of pounds per million BTU heat input for proof of compliance. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.]
- B.41. Continuous Monitor Performance Specifications.** If continuous monitoring systems are required by rule or are elected by the permittee to be used for demonstrating compliance with the standards of the Department, they must be installed, maintained and calibrated, either:
- a. in accordance with the EPA performance specifications listed below. These performance specifications are contained in 40 CFR 60, Appendix B, and are adopted by reference in Rule 62-204.800, F.A.C.
 - (1) Performance Specification 1--Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.
 - (2) Performance Specification 2--Specifications and Test Procedures for SO₂ Continuous Emission Monitoring Systems in Stationary Sources.
 - (3) Performance Specification 3--Specifications and Test Procedures for CO₂ Continuous Emission Monitoring Systems in Stationary Sources. Or,
 - b. in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Excess emissions pursuant to Rule 62-210.700, F.A.C., shall be determined using the 40 CFR part 75 CEMS. [Rule 62-297.520, F.A.C.; 40 CFR 75; and, Applicant Request.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -004

Test Methods and Procedures

B.42. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 5, 5B, 5F or 17	Methods for Determining Particulate Matter Emissions
EPA Methods 6, 6A, 6B or 6C	Methods for Determining Sulfur Dioxide Emissions
Method 7, 7A, 7C, 7D or 7E	Determination of Nitrogen Oxide Emissions
EPA Method 10	Determination of Carbon Monoxide Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions
EPA conditional test method (CTM-027), EPA Method 320	Methods for Determining Ammonia (NH ₃) Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

B.43. Annual Compliance Test. During each federal fiscal year (October 1st to September 30th), Emissions Unit ID No. -004 shall be tested to demonstrate compliance with the emission limitations and standards for VE, PM, NO_x and SO₂. The NO_x and SO₂ RATA test data may be used to demonstrate compliance with the annual test requirement, provided the testing requirements (notification, procedures and reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7), F.A.C.]

B.44. Compliance Test Prior To Renewal. Prior to permit renewal, Emissions Unit ID No. -004 shall be tested to demonstrate compliance with the emission limitations and standards for VE and PM. [Rule 62-297.310(7)(a)3., F.A.C.]

B.45. 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.46. CO Stack Testing. The CO stack test shall be one-time only unless a special test is required. [PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC).]

B.47. Visible Emissions. The test method for visible emissions shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.]

B.48. Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -004

- B.49. Sulfur Dioxide.** The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.]
- B.50. When burning Liquid Fuel - Compliance with Sulfur Limit.** **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery.** [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.]
- B.51. Sulfur Content Sampling Methods.** The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91, or the respective successor ASTM method(s). [Rules 62-213.440 and 62-297.440, F.A.C.]
- B.52. Ammonia (NH₃) Slip Compliance.** Compliance with the ammonia (NH₃) slip limit shall be determined using EPA conditional test method (CTM-027), EPA Method 320, or other methods approved by the Department. [Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC).]

Recordkeeping and Reporting Requirements

- B.53. Reporting Schedule.** The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
Quarterly NO _x Emissions	Every 3 months (quarterly)	B.54.
Quarterly CO Report	Every 3 months (quarterly)	B.55.
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annually), except when more frequent reporting is specifically required	B.57.

[Rule 62-210.700(6), F.A.C.; and, 40 CFR 60, Subpart A.]

- B.54. Quarterly NO_x Report.** The permittee shall submit a quarterly NO_x report to the Department and the EPCHC within 30 days following each calendar quarter. This report shall contain the 30-day NO_x rolling average, all time periods of boiler operation as well as a statement of CEMS and/or boiler malfunction, start-up, shutdown or abnormal events. [Rules 62-4.070(1) & (3) and 62-213.440(1) (Monitoring), F.A.C.]
- B.55. Quarterly CO Report.** Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Department and the EPCHC summarizing periods of CO emissions in excess of the BACT permit standard following the NSPS format in 40 CFR 60.7(c), Subpart A. In addition, the report shall summarize the CO CEMS system monitor availability for the previous quarter. [PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC).]
- B.56. Recordkeeping.** Gravimetric instrument data verifying that the 20.0% maximum petroleum coke content by weight has not been exceeded shall be maintained for **five** years and submitted to the Department and the EPCHC with each annual operating report. Also to be maintained and available for inspection shall be a daily record of operation showing the date, fuel used, mode of operation (integrated/non-integrated), and the duration of all startups, shutdowns and malfunctions. The permittee shall maintain copies of fuel analyses containing information on sulfur content, ash content, and heating values. [PSD-FL-040; Rules 62-4.070(1) & (3), 62-213.440(1)(b)2.b., F.A.C.; and, PA 79-12.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -004

B.57. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

Other Requirements

- B.58. NSPS Requirements - Subpart A.** This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
40 CFR 60.7, Notification and Recordkeeping
40 CFR 60.8, Performance Tests
40 CFR 60.11, Compliance with Standards and Maintenance Requirements
40 CFR 60.12, Circumvention
40 CFR 60.13, Monitoring Requirements
40 CFR 60.19, General Notification and Reporting Requirements,
which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]
- B.59. NSPS Requirements - Subpart Da.** Except as otherwise provided in this permit, this emissions unit shall comply with all applicable provisions of 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted by reference in Rule 62-204.800(8)(b)2., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.47a. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart Da** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]
- B.60. Stack Height.** The height of the boiler exhaust stack for Unit No. 4 (BB004) shall not be less than 490 ft. above grade. [Rule 62-210.550(3) (Good Engineering Practice (GEP) stack height), F.A.C.; and, PA 79-12.]
- B.61. Settlement Agreements.** This emissions unit shall comply with the requirements contained in the Consent Final Judgment (DEP vs. TECO) dated December 16, 1999 and the Consent Decree (U.S. vs. TECO) dated February 29, 2000, including the amendments dated October 23, 2000 and June 12, 2009, attached as a part of this permit as **Appendices CFJ and CD**, respectively. [Rules 62-4.070(1), (3) & (5) and 62-213.440, F.A.C.; and, Permit No. 0570039-014-AC.]
- B.62. Compliance Plan - Unfinished Work and/or Activities for Unit No. 4.** The actions applicable to Unit No. 4 specified in **Appendix CP-1** have not yet been completed under the Consent Decree. [Rule 62-213.440(2), F.A.C.; and, Consent Decree (U.S. vs. TECO) dated February 29, 2000, including the amendments dated October 23, 2000 and June 12, 2009.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit -007

Reserved.

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

E.U. ID No.	Brief Description
	<i>Combustion Turbine</i>
-007	Combustion Turbine No. 1

Combustion Turbine No. 1 removed from service on 10/26/2010.

Section reserved to preserve numbering. (will be removed at next renewal)

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Units -008, -018, -009, -019 & -026

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

E.U. ID No.	Brief Description
	<i>Flyash Handling and Storage - Silo Nos. 1 and 2</i>
-008	Fly Ash Silo No. 1 Baghouse
-018	Fly Ash Silo No. 1 Truck Loadout
-009	Fly Ash Silo No. 2 Baghouse
-019	Fly Ash Silo No. 2 Truck Loadout
-026	Fly Ash Handling and Storage Fugitive Emissions (all except silos)

These emissions units consist of Fly Ash Silo Nos. 1 and 2, which handle fly ash from Steam Generator Unit Nos. 1, 2 and/or 3, as described below.

Fly Ash Silo No. 1 handles fly ash from Steam Generator Units No. 1 and No. 2. Fly ash is pneumatically conveyed from the individual electrostatic precipitators to Silo No. 1. Also, the fly ash may be pneumatically conveyed from tanker trucks to and/or from Silo No. 2 to Silo No. 1. The sum total loading rate to the silo for all the processes combined is 44.5 tons per hour. Fly ash from Silo No. 1 is discharged in either a wet or dry state. The dry fly ash is pneumatically conveyed to the beneficiation facility and/or gravity fed by tubing into totally enclosed tanker trucks. Fly ash is chemically or physically processed through a pugmill and then the wet ash unloaded into dump trucks. Particulate matter emissions generated by silo loading and silo unloading to a tanker truck are controlled by a 20,081 dscfm Flex Kleen Model No. 84 UDTR-640 baghouse in addition to reasonable precautions. All fly ash handled is generated on-site.

Fly Ash Silo No. 2 handles fly ash from Steam Generator Units Nos. 1, 2 and/or 3. Fly ash is pneumatically conveyed in a series of pipes from the individual unit precipitators (Units 1, 2 and/or 3, only two units at any time) to the silo for temporary storage. Fly ash from Silo No. 2 is discharged in either a wet or dry state. From the silo, the dry fly ash is pneumatically conveyed to the beneficiation facility and/or gravity fed by tubing into closed tanker trucks and transported to an off-site consumer. The wet fly ash is processed through a pugmill and then unloaded into a dump truck to be transported to an off-site consumer. Particulate matter emissions generated during silo loading operation and from the tanker truck loadout chutes are controlled by a 20,081 dscfm Flex Kleen, Model No. 84 UDTR-640 baghouse in addition to reasonable precautions.

{Permitting note(s): These emissions units are regulated under Rule 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County and Rule 62-210.300, F.A.C., Permits Required.}

Essential Potential to Emit (PTE) Parameters

D.1. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.)]

D.2. Permitted Capacity. The maximum permitted loading rate for all Fly Ash Silo No. 1 processes combined is 44.5 tons per hour. The maximum permitted loading rate for all Fly Ash Silo No. 2 processes combined is 44.5 tons per hour. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE); and, AC29-194516.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **D.3. - D.4.** are based on the specified averaging time of the applicable test method.

D.3. Particulate Matter Emissions. Total maximum allowable emissions of particulate matter from the each silo baghouse shall not exceed 0.03 gr/dscf, 5.16 lbs/hr and 22.62 tons/yr based on a design flow rate of 20,081 dscfm. [Rules 62-4.160(2) and 62-296.711(2)(b), F.A.C.; AO29-160255 and AO29-161082]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Units -008, -018, -009, -019 & -026

- D.4. Visible Emissions.** Visible emissions from the flyash handling system and flyash silos are limited to 5% opacity. [PA 79-12; and, Chapter 1-3.52, Rules of the EPC.]
- D.5. Unconfined Emissions of Particulate Matter.** All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 62-296.320(4), F.A.C. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alterations, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. The following reasonable precaution shall be taken to control unconfined particulate matter emissions associated with the fly ash silo/truck operations. Reasonable precautions shall include, but not limited to:
- a. Fly ash transported by dump truck shall be adequately wetted and processed through the pugmill;
 - b. Dump trucks used to transport fly ash shall utilize tarps at all times except when loading/unloading;
 - c. Fly ash transported in a dry state shall be accomplished utilizing an enclosed tanker truck;
 - d. Fly ash spilled and/or leaked on plant grounds shall be adequately wetted and disposed of daily;
 - e. Fly ash collected from spills and/or leaks must be adequately wetted at all times;
 - f. Ensure the proper seating of the unloader chute onto the tanker inlet prior to loading;
 - g. Keep the dust extractor operational during loading;
 - h. Close the tanker's inlet as soon as practical after the loading process;
 - i. Extend the tubing from the silo into the closed tanker type trucks during loadout; and,
 - j. Periodic watering of plant roads.
- [Rules 62-296.320(4)(c)2. and 62-4.070(1) & (3) (Reasonable Assurance), F.A.C.]

Excess Emissions

- D.6. Excess Emissions Allowed.** 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. [Rule 62-210.700(1), F.A.C.]
- D.7. Excess Emissions Prohibited.** 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.]

Test Methods and Procedures

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

Method(s)	Description of Methods and Comments
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 5	Methods for Determining Particulate Matter Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

- D.9. Annual Compliance Test.** During each federal fiscal year (October 1st to September 30th), Emissions Unit ID Nos. -008, -018, -009 and -019 shall be tested to demonstrate compliance with the emission limitations and standards for VE. [Rule 62-297.310(7), F.A.C.]
- D.10. Compliance Test Prior To Renewal.** Prior to permit renewal, Emissions Unit ID Nos. -008, -018, -009 and -019 shall be tested to demonstrate compliance with the emission limitations and standards for VE. [Rule 62-297.310(7)(a)3., F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Units -008, -018, -009, -019 & -026

- 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. [Rule 62-297.310, F.A.C.]
- D.12. Visible Emissions Test.** Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual test shall be 30 minutes. [Rules 62-4.070(3) and 62-297.310(4)(a)2., F.A.C.]
- D.13. Visible Emissions Test in Lieu of PM Stack Test.** The owner or operator is permitted to comply with the VE limit and the VE testing requirement in lieu of regularly demonstrating compliance with the PM limitation. If the Department has reason to believe that the particulate matter limitation is not being met, it shall require compliance be demonstrated by conducting a particulate matter test in accordance with EPA Method 5 specified at 40 CFR 60 Appendix A. [Rules 62-4.070(3) and 62-297.620(4), F.A.C.]
- D.14. Testing Conditions.** Compliance testing for the silo and tanker truck loading operations shall be conducted under the following conditions:
- a. All conveyance hoppers will be operational during the test.
 - b. All fly ash will be directed to the silo, no reinjection of fly ash to the boiler systems will occur during the test.
 - c. The boilers shall operate at the maximum capability of this unit under normal operating conditions during the test.
 - d. Two tanker trucks shall be loaded during the test. The loading valve shall be open to allow 90%-100% of the maximum loading rate during testing. Position of the valve during testing shall be recorded.
 - e. The visible emission test shall be at least 30 minutes in duration and the period of time during which truck loading occurred indicated on the test report.
- [Rules 62-4.070(1) & (3) and 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

- D.15. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Units -014, -027 & -028

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

E.U. ID No.	Brief Description
<i>Flyash Handling and Storage - Silo No. 3</i>	
-014	Fly Ash Silo No. 3 Baghouse
-027	Fly Ash Silo No. 3 Truck Loadout
-028	Fly Ash Handling System Fugitive Emissions

These emissions units consist of Fly Ash Silo No. 3, which handles fly ash from Steam Generator Unit No. 4. Also, fly ash may be pneumatically conveyed from tanker trucks to Silo No. 3. The dry fly ash is pneumatically conveyed to a beneficiation facility and/or gravity fed by tubing into totally enclosed tanker trucks. The sum total loading rate to the silo for all the processes combined is 44.5 tons per hour. Fly ash can be chemically or physically processed through a pugmill and then the wet ash loaded into dump trucks. Particulate matter emissions are controlled by a 1,200 dscfm Flex Kleen Model 84-WRTC-80-II-G baghouse.

{Permitting note(s): These emissions units are regulated under Rule 212.400, F.A.C., Prevention of Significant Deterioration [PSD-FL-040] and Rule 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}

Essential Potential to Emit (PTE) Parameters

E.1. Hours of Operation. These emissions units may operate continuously (8760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.)]

Operational Requirements

E.2. Negative Pressures. The flyash handling system (including transfer and silo storage) shall be maintained at negative pressures and vented to a control system. [PSD-FL-040.]

E.3. System Pressure Monitoring. The system pressure will be monitored quarterly to assess that the system is operating under negative pressure. [Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions E.4. - E.5. are based on the specified averaging time of the applicable test method.

E.4. Particulate Matter Emissions. Particulate matter emissions from the flyash handling system and flyash silo shall not exceed 0.2 lb/hr. [PA 79-12; and, PSD-FL-040.]

E.5. Visible Emissions. Visible emissions from the flyash handling system and the flyash silo are limited to 5% opacity. [Rule 62-297.620(4), F.A.C.; PA 79-12; and, Chapter 1-3.52, Rules of the EPC.]

Excess Emissions

E.6. Excess Emissions Allowed. 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. [Rule 62-210.700(1), F.A.C.]

E.7. Excess Emissions Prohibited. 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.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Units -014, -027 & -028

Test Methods and Procedures

E.8. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 5	Methods for Determining Particulate Matter Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

E.9. Annual Compliance Test. Except as specified in Specific Condition **E.12.**, during each federal fiscal year (October 1st to September 30th), Emissions Unit ID Nos. -014 and -027 shall be tested to demonstrate compliance with the emission limitations and standards for VE. [Rules 62-297.310(7) and 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}.]

E.10. Compliance Test Prior To Renewal. Prior to permit renewal, Emissions Unit ID Nos. -014 and -027 shall be tested to demonstrate compliance with the emission limitations and standards for VE. [Rule 62-297.310(7)(a)3., F.A.C.]

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

E.12. Visible Emissions Test in Lieu of PM Stack Test. The owner or operator is permitted to comply with the VE limit and the VE testing requirement in lieu of regularly demonstrating compliance with the PM limitation. If the Department has reason to believe that the particulate matter limitation is not being met, it shall require compliance be demonstrated by conducting a particulate matter test in accordance with EPA Method 5 specified at 40 CFR 60 Appendix A. [Rules 62-4.070(3) and 62-297.620(4), F.A.C.]

Recordkeeping and Reporting Requirements

E.13. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit -011, -012, -013, -020, -021, -023 & -025

Unless otherwise specified, the specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
<i>Limestone Handling and Storage</i>	
-011	Truck Limestone Unloading Receiving Hopper
-012	Limestone Silo A with 2 Baghouses
-013	Limestone Silo B with 2 Baghouses
-023	Limestone Handling Conveyor LB to Conveyor LC with Baghouse
-023	Limestone Handling Conveyor LD to Conveyor LE with Baghouse
-025	Limestone Storage and Handling Fugitive Emissions
<i>Limestone Handling for FGD System for Units 1 and 2</i>	
-020	Drops from Limestone Conveyors LE, LF and LG and Silo C Belt Feeder with Baghouse
-021	Silo C with one Baghouse

Emissions Unit Description for E.U. ID Nos. -011, -012, -013, -023 and -025

Limestone is received by truck and conveyed to the limestone storage building. From the storage building it is reclaimed and conveyed to the limestone silo A, B and/or C. The maximum annual tons of limestone handled is 1,471,680.

Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LB to Conveyor LC are controlled by a Sternvent Model DKED18003 baghouse. Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LD to Conveyor LE are controlled by a Sternvent Model DKED 18003 baghouse.

{Permitting note(s): These emissions units are regulated under Rule 212.400, F.A.C., Prevention of Significant Deterioration [PSD-FL-040]; Power Plant Siting Certification [PA 79-12]; and, Rule 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}

Emissions Unit Description for E.U. ID Nos. -020 and -021

Components of the limestone handling system provide limestone for the flue gas desulfurization (FGD) system. The components are Silo C and its related rotary unloader, belt feeder and wet ball mill, and reversible belt conveyors LF and LG. Conveyors LF and LG replace an existing bifurcated chute which feeds from conveyor LE to silos A and B. Particulate matter emissions from drops from limestone handling conveyors LE, LF and LG and the silo C belt feeder are controlled by a baghouse: American Air Filter Fabripulse - Model B, size 12-72-1155. Particulate matter emissions from displaced air in silo C are controlled by a baghouse: American Air Filter Fabripak, size 6-16-132. The wet ball mill is a wet process with no expected particulate matter emissions.

{Permitting note(s): These emissions units are regulated under Subpart 000, Standards of Performance for Nonmetallic Mineral Processing Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)64., F.A.C.; Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations; and, Chapter 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit -011, -012, -013, -020, -021, -023 & -025

Essential Potential to Emit (PTE) Parameters

F.1. Hours of Operation. These emissions units may operate continuously (8760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.)]

Operational Requirements

- F.2. (This condition applies to Emissions Unit ID No. -023.) Enclosure of Equipment.** All conveyors and conveyor transfer points shall be enclosed to preclude particulate matter emissions. [PSD-FL-040.]
- F.3. (This condition applies to Emissions Unit ID No. -023.) Best Operational Practices.** The conveyor system shall be inspected quarterly and maintenance shall be conducted as needed in accordance with best operational practices. [Proposed by applicant; and, Rules 62-4.070(3) and 62-210.700(1), F.A.C.]
- F.4. (This condition applies to Emissions Unit ID Nos. -012, -013, and -023.) Operations.** The limestone handling conveyor transfer points and silos shall be maintained at negative pressures with the exhaust vented to a control system(s). [PSD-FL-040.]
- F.5. (This condition applies to Emissions Unit ID Nos. -020 and -021.) Enclosure of Equipment.** All conveyors and conveyor transfer points shall be enclosed and exhaust from this equipment shall be directed to a baghouse to minimize particulate matter emissions. [Rule 62-4.070(3), F.A.C.]
- F.6. (This condition applies to Emissions Unit ID Nos. -020 and -021.) Operating Procedures.** Enclosures and baghouses for these emissions units shall be properly operated and maintained at all times in a condition to minimize particulate matter emissions. The owner and operator shall ensure that all facility staff responsible for these emissions units are trained in their operation and maintenance in accordance with the guidelines and procedures as established by the equipment manufacturers. [Rule 62-4.070(3), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **F.7. - F.9.** are based on the specified averaging time of the applicable test method.

- F.7. (This condition applies to Emissions Unit ID No. -023.) Particulate Matter and Visible Emissions.** Total combined particulate matter emissions from the limestone handling conveyors shall not exceed 0.65 lb/hr. Visible emissions are limited to 5% opacity. Compliance testing for particulate matter emissions is not required provided the opacity limit is maintained. [PSD-FL-040; PA 79-12; and, Chapter 1-3.52, Rules of the EPC.]
- F.8. (This condition applies to Emissions Unit ID Nos. -012 and -013.) Particulate Matter and Visible Emissions.** Total combined particulate matter emissions from the limestone silos shall not exceed 0.05 lb/hr. Visible emissions are limited to 5% opacity. Compliance testing for particulate matter emissions is not required provided the opacity limit is maintained. [PSD-FL-040; PA 79-12; and, Chapter 1-3.52, Rules of the EPC.]
- F.9. (This condition applies to Emissions Unit ID Nos. -020 and -021.) Particulate Matter and Visible Emissions.** No owner or operator shall cause or allow visible emissions from the baghouses controlling these emissions units in excess of 0.03 grains per dry standard cubic feet (gr/dscf) and 5% opacity. [40 CFR 60.672(a)(1) and (2); Rules 62-4.070(3) and Rule 62-296.711(2)(b), F.A.C., Chapter 1-3.52, Rules of the EPC, and request of applicant (VE limit).]

{Permitting note(s): The visible emission limit of this condition is more stringent than the limitations of 40 CFR 60.672(a)(2) and 60.672(f), and compliance with this limit will assure compliance with those requirements.}

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit -011, -012, -013, -020, -021, -023 & -025

Excess Emissions

- F.10. Excess Emissions Allowed.** 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. [Rule 62-210.700(1), F.A.C.]
- F.11. Excess Emissions Prohibited.** 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.]

Test Methods and Procedures

- F.12. Test Methods.** Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 5	Methods for Determining Particulate Matter Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions
EPA Method 22	Visual Determination of Fugitive Emissions from Material Sources

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

- F.13. Annual Compliance Tests.** Except as specified in Specific Condition **F.16.**, during each federal fiscal year (October 1st to September 30th), the emissions units with baghouses shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions (VE). [Rule 62-297.310(7), F.A.C.]
- F.14. Compliance Tests Prior To Renewal.** Except as specified in Specific Condition **F.16.**, the emissions units with baghouses shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions (VE). [Rule 62-297.310(7)(a)3., F.A.C.]
- F.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.]
- F.16. (This condition applies to Emissions Unit ID Nos. -012, -013, -020, -021 and -023.) Visible Emissions Tests in Lieu of PM Stack Tests.** The owner or operator is permitted to comply with the VE limit and the VE testing requirement in lieu of regularly demonstrating compliance with the PM limitations of 40 CFR 60.672(a)(1) and (2). If the Department has reason to believe that the particulate matter limitation is not being met, it shall require compliance be demonstrated by the test method specified by 40 CFR 60.675. [Rules 62-4.070(3) and 62-297.620(4), F.A.C.]
- F.17. (This condition applies to Emissions Unit ID Nos. -011, -012, -013 and -023.) Visible Emissions Tests.** The permittee shall perform an annual VE test to satisfy the periodic monitoring requirements of these conditions. In addition, the system pressure will be monitored quarterly to assess that the system is operating under negative pressure. [Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}]
- F.18. (This condition applies to Emissions Unit ID Nos. -020 and -021.) Visible Emissions Tests.** Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of initial tests shall be 3 (three) hours and the duration of subsequent annual tests shall be 30 (thirty) minutes.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Unit -011, -012, -013, -020, -021, -023 & -025

{Permitting note(s): The 3 (three) hour duration of initial tests complies with the requirements of the NSPS and the 30 (thirty) minute duration of subsequent tests complies with state rules.}

[Rules 62-4.070(3) and 62-297.310(4)(a)2., F.A.C.; and, 40 CFR 60.11(b)]

Recordkeeping and Reporting Requirements

F.19. (This condition applies to Emissions Unit ID Nos. -020 and -021.) Records of Maintenance. The owner or operator shall make and maintain records of maintenance on the enclosures and baghouses sufficient to demonstrate compliance with the operating procedures requirements of Specific Condition **F.6.** [Rule 62-4.070(3), F.A.C.]

F.20. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

(These conditions apply to Emissions Unit ID Nos. -020 and -021.) NSPS 40 CFR 60 Requirements

F.21. NSPS Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

40 CFR 60.7, Notification and Recordkeeping

40 CFR 60.8, Performance Tests

40 CFR 60.11, Compliance with Standards and Maintenance Requirements

40 CFR 60.12, Circumvention

40 CFR 60.13, Monitoring Requirements

40 CFR 60.19, General Notification and Reporting Requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

F.22. NSPS Requirements - Subpart OOO. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)64., F.A.C. These emissions units/points shall comply with **Appendix 40 CFR 60 Subpart OOO** included with this permit. [Rule 62-204.800(8)(b)64., F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection G. Emissions Units -015, -016, -017 & -039

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

E.U. ID No.	Brief Description
<i>Coal Bunkers with Roto-Clones</i>	
-015	Unit No. 1 Coal Bunker with Roto-Clone
-016	Unit No. 2 Coal Bunker with Roto-Clone
-017	Unit No. 3 Coal Bunker with Roto-Clone
-039	Unit No. 4 Coal Bunker with Roto-Clone

These emissions units are Coal Bunkers for Steam Generator Unit Nos. 1 - 4 with an exhaust fan/cyclone collector (Roto-Clone) controlling dust emission from each unit's respective bunker. The annual coal throughput shall not exceed 4000 TPH per bunker. Two moving transfer stations via their respective conveyor belts route coal through enclosed chutes to the various bunkers. Coal Bunkers 1- 4 are each equipped with a 9400 acfm American Air Filter (AAF) Company Type D Roto-Clone to abate dust emissions during ventilation. A number of vent pipes convey fresh air from each bunker to a Roto-Clone during particulate matter removal. Particulate matter removed by the Roto-Clones is returned to the coal bunkers via a hopper and return line. The Unit No. 1 Coal Bunker is situated west of Unit No. 2 Coal Bunker. The Unit No. 3 Coal Bunker is situated east of Unit No. 2 Coal Bunker. The Unit No. 4 Coal Bunker is located east of Unit No. 3.

{Permitting note(s): These emissions units are regulated under Chapter 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County. Each of these emissions units is exempt from the requirements of Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations, pursuant to Rule 62-296.700(2)(c), F.A.C., because it has an allowable emission rate of less than one ton per year.}

Essential Potential to Emit (PTE) Parameters

G.1. Hours of Operation. The hours of operation for each bunker loading shall not exceed 4,167 hours per year. [Rule 62-210.200 (Definitions - (PTE), F.A.C.; and, Applicant Request.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions **G.2.** - **G.3.** are based on the specified averaging time of the applicable test method.

G.2. Particulate Matter. Particulate matter (PM) emissions shall not exceed 0.48 lbs/hr and 0.99 tons per year from each roto-clone exhaust. [Rules 62-4.070(3) and 62-296.700(2)(c), F.A.C.; and, Applicant Request.]

{Permitting note(s): This particulate matter limitation ensures that allowable emissions are less than one ton per year from each emissions unit.}

G.3. Visible Emissions. Visible emissions from each of these emissions units are limited to 5% opacity. [Rule 62-297.620(1)-(3), F.A.C.; AC29-163788; Chapter 1-3.52, Rules of the EPC; and, Applicant Request.]

Excess Emissions

G.4. Excess Emissions Allowed. 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. [Rule 62-210.700(1), F.A.C.]

G.5. Excess Emissions Prohibited. 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.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection G. Emissions Units -015, -016, -017 & -039

Test Methods and Procedures

G.6. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 5	Methods for Determining Particulate Matter Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

G.7. Annual Compliance Test. During each federal fiscal year (October 1st to September 30th), Emissions Unit ID Nos. -015, -016, -017 and -039 shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions (VE). [Rules 62-297.310(7) and 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}]

G.8. Compliance Test Prior To Renewal. Prior to permit renewal, Emissions Unit ID Nos. -015, -016, -017 and -039 shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions (VE). [Rule 62-297.310(7)(a)3., F.A.C.]

G.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.]

G.10. Visible Emissions Test. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual test shall be 30 (thirty) minutes. [Rules 62-4.070(3) and 62-297.310(4)(a)2., F.A.C.]

Recordkeeping and Reporting Requirements

G.11. Records. The permittee shall monitor the hours of operation of coal bunker loading. [Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}]

G.12. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Unit -010

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

E.U. ID No.	Brief Description
<i>Solid Fuel Yard</i>	
-010	Fugitive Emissions from Fuel Unloading and Handling Operations

This emissions unit consists of solid fuel handling and storage activities at the Big Bend Station as described in more detail below.

Solid fuel (consisting of coal and petcoke) is unloaded from ships and barges into the solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. Solid fuel may also be received/unloaded by railcar (see EU ID No. -047) and conveyed to the fuel yard. Solid fuel from the piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins (see EU ID No. -029), which consists of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site (see EU ID No. -046).

{Permitting note(s): These emissions units are regulated under Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD-FL-040]; Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations; Rule 62-210.300, F.A.C., Permits Required; Power Plant Siting Certification [PA 79-12]; and, Chapter 1-3.52, Rules of the EPC, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}

Authorized Emissions Points

The emissions unit contained in this subsection is comprised of the following emissions points:

E.U. ID No. -010: Solid Fuel Unloading and Handling Operations	
Point ID	Description of Emissions Point
<i>Barge Unloading Operations</i>	
FH-001	Barge Clamshell to Conveyor D1
FH-002	Barge Bucket Elevator to Conveyor A1
FH-003	Conveyor A1 to Conveyor B1
FH-004	Conveyor B1 to Conveyor D1
FH-005	Self-Unloading Barge to Conveyor D1
<i>Coal Conveying Operations</i>	
FH-006	Conveyor D1 to Conveyor E1
FH-007	Conveyor E1 to Conveyor Y or Conveyor F1
FH-008a	Conveyor Y to Conveyor Z
FH-008b	Conveyor Z to West Emergency Pile
FH-012	Conveyor Z to Conveyor P
FH-013	Conveyor P to Intermediate Conveyor
FH-014	Intermediate Conveyor to North Stacker Conveyor (G2)
FH-015	North Stacker Conveyor (G2) to North/Center Storage Pile
FH-017	North Stacker Conveyor (G2) to Conveyor P
FH-022	Conveyor F1 to South Stacker Conveyor (G1)
FH-023	South Stacker Conveyor (G1) to South/Center Storage Pile.
FH-025	South Reclaimer Conveyor (G1) to Conveyor F1
FH-028	Conveyor P to Conveyor J2
FH-029	Conveyor J2 to Conveyor Q2
FH-030	Conveyor F1 to Conveyor J1

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Unit -010

FH-031	Conveyor J1 to Conveyor Q1
FH-052	Conveyor U to East Emergency Storage Pile
FH-055	Conveyor W1 to Conveyor L1
FH-056	Conveyor W2 to Conveyor L2
FH-059 - FH-062	Conveyors L1 and L2 to M1 & M2, and Conveyors M1 and M2 to Coal Bunkers
<i>Coal Equipment & Storage</i>	
FH-009	Dozer Operations on West Emergency Storage Pile
FH-010	West Emergency Storage Pile
FH-011a	Dozer Reclaim from West Emergency Pile to Portable Conveyor
FH-016	Mobile Reclaimer to North Stacker Conveyor (G2)
FH-018	Dozer Operations on North Storage Pile
FH-019	North Storage Pile
FH-020	Dozer Operations on Middle (Common) Storage Pile
FH-021	Fuel Storage - Middle (Common) Storage Pile
FH-024	South Reclaimer to South Reclaimer Conveyor (G1)
FH-026	Dozer Operations on South Storage Pile
FH-027	South Storage Pile
FH-036 - FH-047	Blending Bins to Conveyors T1, T2
FH-050	Crusher to Conveyor W1
FH-051	Crusher to Conveyor W2
FH-053	Dozer Operations on East Emergency Storage Pile
FH-054	East Emergency Storage Pile
FH-057	Dozer Reclaim from East Emergency Pile to "K" Feeders
FH-058	"K" Feeders to Conveyors L1 or L2
FH-063	Dozer Operations on Storage Pile
FH-064	Dozer Reclaim from Storage Pile to Loadout or Portable Conveyor
FH-070	Long Term Storage Pile
FH-071	Dozer Operations on Long Term Storage Pile
FH-072	Trucks, Full
FH-073	Trucks, Empty

Essential Potential to Emit (PTE) Parameters

The handling capacity for the conveyors and equipment that comprise the solid fuel yard emissions points is not specifically limited; however, the design capacity for the majority of the handling equipment is 4,000 tons per hour. The total annual solid fuel handling capacity is inherently limited by the amount of fuel that Boilers 1 – 4 can burn (5-6 million tons per year) plus the amount of solid fuel that can be transloaded for off-site shipment (1,428,030 tons per year, see E.U. ID No. -046). In addition, permit No. 0570039-041-AC established an annual limit of 8 million tons per year of solid fuel that can be received by railcar (see E.U. ID No. -047).

H.1. Methods of Operation – Materials Handling. The materials that are allowed to be handled by these emissions units are coal, petroleum coke, slag and residual coal (generated at the TEC Polk Power Station). [PA 79-12 and Permit No. 0570039-012-AC]

H.2. Hours of Operation. These emissions points may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C. and PA 79-12)]

Control Technology

H.3. PM Control Devices. Particulate matter emissions shall be controlled by use of control devices. [PA 79-12.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Unit -010

{Permitting Note: This requirement is satisfied by complying with Specific Conditions H.4. – H.6.}

- H.4. Equipment Enclosure.** All conveyors and conveyor transfer points shall be enclosed to preclude particulate matter emissions excepting the coal handling stacker reclaimer, the tail end conveyor feeding the tripper and the barge unloading belt, which are exempted for feasibility considerations. [PSD-FL-040]
- H.5. Water Sprays.** Water sprays for storage piles, handling equipment, etc., including the handling equipment exempted from the conveyor enclosure requirement (see Specific Condition H.4.), shall be applied during dry periods and as necessary to all unconfined emissions points to maintain opacity below 20%. Water sprays and/or surfactants shall also be applied as necessary within the covered conveyors and drop points to maintain opacity below 5%. [Rules 62-4.160(2), 62-213.440 and 62-296.320(4)(c), F.A.C.]
- H.6. Minimizing Wind Erosion - Coal Storage Piles.** Coal storage piles shall be shaped, compacted and oriented to minimize wind erosion. [PSD-FL-040]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition H.7. is based on the specified averaging time of the applicable test method.

- H.7. VE/Opacity Limits.** Pursuant to Chapter 1-3.52, Rules of the EPC, visible emissions shall not exceed 20% opacity for any unconfined emissions in the fuel yard. Unconfined emissions, as defined in Rule 62-210.200, F.A.C., shall include the static fuel piles, etc. Pursuant to Rule 62-296.711(2), F.A.C., visible emissions shall not exceed 5% opacity for the remaining emissions units in the fuel yard, as determined by opacity testing. [Rules 62-296.320(4)(b)1., 62.296.711(2), F.A.C.; PA 79-12; and, Chapter 1-3.52, Rules of the EPC.]

{Permitting Note: "Unconfined Emissions" are defined in Rule 62-210.200 as "Emissions which escape and become airborne from unenclosed operations or which are emitted into the atmosphere without being conducted through a stack." Based on this definition and the applicable requirements reflected in Specific Condition H.7., emissions from operations related to the open storage piles (i.e. movable conveyor drops to the storage piles, the open storage piles themselves, dozer operations on the storage piles, the movable coal handling stacker reclaimer, the tail end conveyor feeding the tripper and the barge unloading belt) are considered unconfined emissions subject only to the general 20% opacity standard and regular VE testing is not required. The emission points that are enclosed (i.e. conveyors, conveyor transfer points and static conveyor drop points) are subject to Chapter 1-3.52, Rules of the EPC, and the PM RACT, standard of 5% opacity. TEC is able to meet this limit by maintaining the required enclosures and by operating water sprays or applying surfactants as needed; therefore, additional add-on PM control devices are not needed.}

- H.8. Reasonable Precautions to Minimize Unconfined Particulate Matter - Fuel Pile Operations.** The fuel pile operations are subject to Rule 62-296.320(4)(c), F.A.C., Unconfined Emissions of Particulate Matter. Reasonable precautions to minimize unconfined particulate matter shall be in accordance with Rule 62-296.320(4)(c), F.A.C.; and, may include, but shall not be limited to, the coating of roads and construction sites used by contractors and regrassing or watering areas of disturbed fuel. [Rule 62-296.320(4)(c) and PA 79-12.]

Excess Emissions

- H.9. Excess Emissions Allowed.** 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. [Rule 62-210.700(1), F.A.C.]
- H.10. Excess Emissions Prohibited.** 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.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Unit -010

Test Methods and Procedures

H.11. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

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

H.13. Annual Compliance Test. During each federal fiscal year (October 1st to September 30th), VE tests shall be performed to demonstrate compliance with the opacity standards established for the emissions points within this emissions unit that are subject to the 5% opacity limit, as specified in Specific Condition **H.7.** and the associated permitting note. [Rule 62-297.310(7), F.A.C., Chapter 1-3.52, Rules of the EPC and PA 79-12.]

H.14. Compliance Test Prior To Renewal. Prior to permit renewal, VE tests shall be performed to demonstrate compliance with the opacity standards established for the emissions points within this emissions unit that are subject to the 5% opacity limit, as specified in Specific Condition **H.7.** and the associated permitting note. [Rule 62-297.310(7)(a)3., F.A.C. and Chapter 1-3.52, Rules of the EPC]

H.15. Visible Emissions Test. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual tests shall be 30 minutes. [Rule 62-297.310(4)(a)2., F.A.C.]

Recordkeeping and Reporting Requirements

H.16. Daily Fuel Log. The permittee shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values. [PA 79-12]

H.17. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, 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:

E.U. ID No.	Brief Description
-032	Surface Coating of Miscellaneous Metal Parts

This emissions unit is for the surface coating of miscellaneous metal parts as defined in Rule 62-296.513, F.A.C. These parts include such things as pumps, compressors, conveyor components, fans, blowers, transformers.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.500, F.A.C., Reasonably Available Control Technology (RACT) - Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) Emitting Facilities; and, Rule 62-296.513, F.A.C., VOC RACT - Surface Coating of Miscellaneous Metal Parts and Products.}

Essential Potential to Emit (PTE) Parameters

- I.1. Hours of Operation. At applicant request, miscellaneous metal parts surface coating operations are allowed to operate for a total of 3,500 hours/year. [Rule 62-210.200 (Definitions - (PTE), F.A.C.)]
- I.2. Capacity. At applicant request, the total maximum coating usage shall not exceed 2 gallons per hour, on a 24-hr basis, and 7,000 gallons per year. [Rule 62-210.200 (Definitions - (PTE), F.A.C.)]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition I.3. is based on the specified averaging time of the applicable test method.

- I.3. **(This specific condition applies if this emissions unit emits more than 15 pounds of VOC in any one day and 3 pounds VOC in any one hour.)** VOC Emission Limits for Surface Coating of Miscellaneous Metal Parts.
 - a. No owner or operator of a coating line for miscellaneous metal parts and products shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of:
 - (1) 4.3 pounds per gallon of coating (0.52 kilograms per liter), excluding water, delivered to a coating applicator that applies clear coatings;
 - (2) 3.5 pounds per gallon of coating (0.42 kilograms per liter), excluding water, delivered to a coating applicator in coating application system that is air dried or forced warm air dried at temperatures up to 194 degrees Fahrenheit (90 degrees Celsius);
 - (3) 3.5 pounds per gallon of coating (0.42 kilograms per liter), excluding water, delivered to a coating applicator that applies extreme performance coatings; or,
 - (4) 3.0 pounds per gallon of coating (0.36 kilograms per liter), excluding water, delivered to a coating applicator for all other coatings and coating application systems.
 - b. If more than one emission limitation in specific condition I.3.(a) above applies to a specific coating, then the least stringent emission limitation shall be applied.
 - c. All volatile organic compound emissions from solvent washings shall be considered in the emission limitations in condition I.6.(a) above unless the solvent is directed into containers that prevent evaporation into the atmosphere.
[Rule 62-296.513(2), F.A.C.]
- I.4. **(This specific condition applies if this emissions unit emits more than 15 pounds of VOC in any one day and 3 pounds VOC in any one hour.)** Control Technology. The emission limits in specific condition I.3.(a) above shall be achieved by the application of low solvent coating technology. [Rule 62-296.513(3), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection I. Emissions Unit -032

Excess Emissions

- I.5. Excess Emissions Allowed. 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. [Rule 62-210.700(1), F.A.C.]
- I.6. Excess Emissions Prohibited. 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.]

Test Methods and Procedures

I.7. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Method 24	Determining VOC content
EPA Method 450/3-84-019	Determining VOC content

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

- I.8. Test Methods. The VOC content shall be calculated using a percent solids basis (less water and exempt solvents) for adhesives, coating, and inks, using EPA Reference Method 24. [Rule 62-296.500(2)(b)2., F.A.C.]
- I.9. **(This specific condition applies if this emissions unit emits more than 15 pounds of VOC in any one day and 3 pounds VOC in any one hour.)** Test Methods and Procedures to Determine Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rules 62-296.513(4)(a) and (c), F.A.C.]
- I.10. 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.]

Recordkeeping and Reporting Requirements

- I.11. Recordkeeping. The permittee shall maintain daily records of operations for the most recent 5 year period. The records shall be made available to the local, state, or federal air pollution agency upon request. The records shall include, but not be limited to, the following:
 - a. The rule number applicable to the operation for which the records are being maintained.
 - b. The application method and substrate type (metal, etc.).
 - c. The amount and type of adhesive, coatings (including catalyst and reducer for multicomponent coatings), solvent, and/or graphic arts material used at each point of application, including exempt compounds.
 - d. The VOC content as applied in each adhesive, coating, solvent, and/or graphic arts material.
 - e. The date for each application of each adhesive, coating, solvent, and/or graphic arts material.
 - f. The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each.
 [Rule 62-296.500(2)(b)1., F.A.C.]
- I.12. Reporting. Annually, in accordance with a schedule and reporting format provided by the Department or EPCHC, The permittee shall provide EPCHC with proof of compliance with the limitations in this section. [Rule 62-296.500(2)(c), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection I. Emissions Unit -032

I.13. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection J. Emissions Units -033 & -034

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

E.U. ID No.	Brief Description
	<i>Abrasive Blasting</i>
-033	Abrasive Blast Booth with Baghouse
-034	Abrasive Blast Media Storage with Baghouse

These emissions units consist of abrasive blasting related activities. The abrasive blast booth is used to prepare miscellaneous metal parts for surface coating. Particulate matter emissions from the abrasive blast booth are controlled by a Torit Model No. DFT 4-16 pulse jet baghouse with an inlet flow rate of 7,500 acfm. Particulate matter emissions from the abrasive blast media storage are controlled by a pulse jet baghouse with an inlet air flow rate of 800 acfm.

{Permitting note(s): These emissions units are regulated under Rule 62-296.712, F.A.C., PM RACT - Miscellaneous Manufacturing Process Operations.}

Essential Potential to Emit (PTE) Parameters

J.1. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.)]

Operational Requirements

J.2. Used and Waste Oils. No used or waste oils shall be burned in the diesel compressors. [Rule 62-070(3), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Conditions J.3. - J.4. are based on the specified averaging time of the applicable test method.

J.3. Particulate Matter and Visible Emissions. The particulate matter emissions from each baghouse shall not exceed 0.03 gr/dscf, or any visible emissions (VE) greater than 5% opacity. However, the permittee may exceed these emission limits if a pollution control device for particulate matter is utilized that has an actual particulate matter collection efficiency of at least 98 percent. The opacity standard for the emissions units shall be the average opacity level achieved during the initial compliance test which established compliance with the standard, plus 5% opacity. [Rule 62-296.712(2), F.A.C.]

J.4. Particulate Matter Emissions. Particulate matter emissions from the abrasive blasting operations shall not exceed 15 tons for any 12 consecutive month period. [Rule 62-212.400 (escape Prevention of Significant Deterioration (PSD), F.A.C.)]

Excess Emissions

J.5. Excess Emissions Allowed. 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. [Rule 62-210.700(1), F.A.C.]

J.6. Excess Emissions Prohibited. 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.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection J. Emissions Units -033 & -034

Test Methods and Procedures

J.7. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 5	Methods for Determining Particulate Matter Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

J.8. Annual Compliance Test. Except as specified in Specific Condition **J.13.**, during each federal fiscal year (October 1st to September 30th), these emissions units shall be tested to demonstrate compliance with the emission limitations and standards for VE. An annual PM test is not required provided the VE limit is met in accordance with Rule 62-296.712, F.A.C. [Rules 62-297.310(7) & 62-296.712, F.A.C.]

J.9. Compliance Test Prior To Renewal. Prior to permit renewal, these emissions units shall be tested to demonstrate compliance with the emission limitations and standards for VE. A renewal PM test is not required provided the VE limit is met in accordance with Rule 62-296.712, F.A.C. [Rules 62-297.310(7)(a)3. & 62-296.712, F.A.C.]

J.10. 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.]

J.11. Test Methods and Procedures.

- a. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference by reference in Chapter 62-297, F.A.C.
- b. The test method for particulate matter emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.
- c. A visible emissions test indicating no visible emissions (5% (percent) opacity) may be submitted in lieu of a particular matter stack test for materials handling emissions subject to this rule, where the emissions unit is equipped with a baghouse.
- d. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.712(3), F.A.C.]

J.12. VE Test Observation Point. The observation point for the blasting operation tests shall be at the point of maximum opacity leaving the enclosure. [Rule 62-070(3), F.A.C.]

J.13. VE Testing Not Required. By this permit, annual emissions compliance testing for VE is not required for these emissions units when operating for less than 400 hours per year. See Specific Condition TR7. [Rule 62-297.310(7)(a)4., F.A.C.]

Recordkeeping and Reporting Requirements

J.14. Monthly Records. The permittee shall maintain monthly records on the type and amount of abrasive blasting material used. A rolling 12-month total shall be kept as well. [Rule 62-070(3), F.A.C.]

J.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection K. Emissions Unit -035

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

EU ID No.	Brief Description
-035	Surface Coating of Ships

This emissions unit is for the surface coating maintenance of ships.

{Permitting note(s): This emissions unit is regulated under 40 CFR 63, Subpart II, National Emission Standards for Hazardous Air Pollutants (NESHAP) from Shipbuilding and Ship Repair (Surface Coating) adopted in Rule 62-204.800(11)(b), F.A.C.; and, Rule 62-296.500, F.A.C., Reasonably Available Control Technology (RACT) - Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO_x) Emitting Facilities. There is no specific VOC RACT category for this type of emissions unit within Rule 62-296.500, F.A.C.}

The following requirements apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

K.1. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.]

Test Methods and Procedures

K.2. 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.]

Recordkeeping and Reporting Requirements

K.3. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

NESHAP 40 CFR 63 Requirements

K.4. NESHAP 40 CFR 63 Requirements - Subpart A. This emissions unit shall comply with all applicable requirements of 40 CFR 63, Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. This emissions unit shall comply with **Appendix 40 CFR 63 Subpart A** included with this permit. [Rule 62-204.800(11)(d)1., F.A.C.]

K.5. NESHAP 40 CFR 63 Requirements - Subpart II. This emissions unit shall comply with all applicable requirements of 40 CFR 63, Subpart II, National Emission Standards for Hazardous Air Pollutants from Shipbuilding and Ship Repair (Surface Coating), which have been adopted by reference in Rule 62-204.800(11)(b), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.789(c)(1) through (4). This emissions unit shall comply with **Appendix 40 CFR 63 Subpart II** included with this permit. [Rule 62-204.800(11)(b), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection L. Emissions Unit -022

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

E.U. ID No.	Brief Description
-022	Lime Silo for Wastewater Treatment Plant with one Baghouse

This emissions unit is comprised of a lime silo with one baghouse (Griffin Environmental 36-LS Filter Vent) which supplies limestone to the wastewater treatment plant for the FGD chloride bleed stream. This plant will serve the FGD systems. Particulate matter emissions from displaced air from periodically filling the lime silo will be controlled with the related baghouse.

{Permitting note(s): This emissions unit is regulated under Chapter 1-3.52, Rules of the EPC, Rules of the Environmental Protection Commission (EPC) of Hillsborough County. This emissions unit is exempt from the requirements of Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations, pursuant to Rule 62-296.700(2)(c), F.A.C., because it has an allowable emission rate of less than one ton per year.}

Essential Potential to Emit (PTE) Parameters

L.1. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.)]

Operational Requirements

L.2. Operating Procedures. The baghouse for this emissions unit shall be properly operated and maintained at all times in a condition to minimize particulate matter emissions. The owner and operator shall ensure that all facility staff responsible for these emissions units are trained in their operation and maintenance in accordance with the guidelines and procedures as established by the equipment manufacturers. [Rule 62-4.070(3), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for Specific Condition **L.3.** is based on the specified averaging time of the applicable test method.

L.3. Particulate Matter (PM) and Visible Emissions. No owner or operator shall cause or allow PM and visible emissions (VE) from the baghouse controlling this emissions unit in excess of 0.03 gr/dscf and 5% opacity. [Rules 62-4.070(3) and 62-296.700(2)(c), F.A.C., Chapter 1-3.52, Rules of the EPC; and, Applicant Request.]

{Permitting note(s): The particulate matter limitation will ensure that allowable emissions are less than one ton per year for this emissions unit.}

Excess Emissions

L.4. Excess Emissions Allowed. 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. [Rule 62-210.700(1), F.A.C.]

L.5. Excess Emissions Prohibited. 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.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection L. Emissions Unit -022

Test Methods and Procedures

L.6. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 5	Methods for Determining Particulate Matter Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

L.7. Annual Compliance Test. Except as specified in Specific Condition **L.10.**, during each federal fiscal year (October 1st to September 30th), this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions (VE). [Rule 62-297.310(7), F.A.C.]

L.8. Compliance Test Prior To Renewal. Prior to permit renewal, this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for visible emissions (VE). [Rule 62-297.310(7)(a)3., F.A.C.]

L.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.]

L.10. Visible Emissions Test in Lieu of PM Stack Test. The owner or operator is permitted to comply with the VE limit and the VE testing requirement in lieu of regularly demonstrating compliance with the PM limitation. If the Department has reason to believe that the particulate matter limitation is not being met, it shall require compliance be demonstrated by conducting a particulate matter test in accordance with EPA Method 5 specified at 40 CFR 60 Appendix A. [Rules 62-4.070(3) and 62-297.620(4), F.A.C.]

L.11. Visible Emissions Test. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual test shall be 30 minutes. [Rules 62-4.070(3) and 62-297.310(4)(a)2., F.A.C.]

Recordkeeping and Reporting Requirements

L.12. Records of Maintenance. The owner or operator shall make and maintain records of maintenance on the baghouse sufficient to demonstrate compliance with the operating procedures requirements of Specific Condition **L.2.** [Rule 62-4.070(3), F.A.C.]

L.13. Records. Tampa Electric shall keep records of facility staff training, and shall maintain, on site, an Operations and Maintenance Plan for the baghouse that details how it shall be properly operated and maintained at all times. Tampa Electric shall also take weekly pressure readings from the baghouse pressure-sensing device. [Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 12/14/2000.}]

L.14. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection M. Emissions Units -037 & -038

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

E.U. ID No.	Brief Description
	<i>Coal Residual Storage and Transfer from the Polk Power Station</i>
-037	Coal Residual Storage Facility
-038	Coal Residual Transfer System

These emissions units consist of the storage and handling of coal residual received from the Polk Power Station. A nominal 25-ton dump truck empties a load of material into the building, and a bulldozer either pushes the material into a vacant area of the building, or it pushes the material directly into the dozer trap in the rear of the building. The dozer trap is a hopper that is partially below grade, and is used to feed the conveyor, which is capable of transferring up to 200 tons of material per hour. The conveyor is fully enclosed to prevent fugitive dust emissions, and to also prevent wetting of the material. Material inside the building shall be sprayed with water as necessary to minimize dust within the building.

{Permitting note(s): These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required; Permit No. 0570039-012-AC; and, Rule 1-3.52, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}

Essential Potential to Emit (PTE) Parameters

- M.1. Hours of Operation.** These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - (PTE), F.A.C.)]
- M.2. Capacity.** The maximum conveyor transfer rate shall be 200 tons per hour and 255,500 tons per year of coal residual that has been generated at the Polk Power Station gasification process. [Permit No. 0570039-012-AC.]

Operational Requirements

- M.3. Enclosure of Equipment.** All conveyors and conveyor transfer points shall be enclosed to minimize particulate matter emissions. The coal residual shall be stored in an enclosed facility. Open storage of coal residual is prohibited. [Rule 62-296.320(4)(c), F.A.C., and Permit No. 0570039-012-AC.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Condition **M.4.** is based on the specified averaging time of the applicable test method.

- M.4. Visible Emissions.** Visible emissions shall not exceed 5% opacity in lieu of particulate matter sampling. [Rule 62-297.620(4), F.A.C., Permit No. 0570039-012-AC; and, Chapter 1-3.52, Rules of the EPC.]

Excess Emissions

- M.5. Excess Emissions Allowed.** 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. [Rule 62-210.700(1), F.A.C.]
- M.6. Excess Emissions Prohibited.** 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.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection M. Emissions Units -037 & -038

Test Methods and Procedures

M.7. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

M.8. Annual Compliance Test. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), these emissions units shall be tested to demonstrate compliance with the emission limitations and standards for VE. [Rule 62-297.310(7), F.A.C.]

M.9. Compliance Test Prior To Renewal. Prior to permit renewal, these emissions units shall be tested to demonstrate compliance with the emission limitations and standards for VE. [Rule 62-297.310(7)(a)3., F.A.C.]

M.10. 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.]

M.11. VE Testing Sites. Sites to be tested shall be determined by EPCHC. [Permit No. 0570039-012-AC.]

Recordkeeping and Reporting Requirements

M.12. Records. The permittee shall keep records of the following parameters for each specific month/day/year:

- a. Amount of raw coal residual charged (tpd); and,
 - b. Amount of refined/beneficiated coal residual charged (tpd).
- [Permit No. 0570039-012-AC.]

M.13. Records. The permittee shall also keep records of:

- a. Annual amount of raw coal residual charged (tpy);
- b. Annual amount of refined/beneficiated coal residual charged (tpy); and,
- c. Annual VE tests.

[Permit No. 0570039-012-AC.]

M.14. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection N. Emissions Units -043 & -044

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

E.U. ID No.	Brief Description
	<i>Diesel Generators (Engines)</i>
-043	Diesel Emergency Black Start Generator, 800 kW
-044	Coal Field Diesel Generator

This section is comprised of two diesel compression ignition type engines. The 800 kW diesel emergency black start generator (engine) provides black start and shutdown capabilities, serving Emission Unit ID Nos. -041 and -042. Air pollutant emissions from both engines are uncontrolled.

Identification	In-service date	Manufacturer name	Horsepower (HP)	Applicable Requirement(s) for Compression Ignition Type Engines
Diesel Emergency Black Start Generator, 800 kW	08/2009	Caterpillar	1,495	40 CFR 63, Subparts A and ZZZZ and 40 CFR 60, Subparts A and IIII This generator is a "new unit."
Coal Field Diesel Generator	10/2009	Caterpillar	349	40 CFR 63, Subparts A and ZZZZ and 40 CFR 60, Subparts A and IIII This generator is a "new unit."

{Permitting note(s): These emissions units are regulated under 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) also referred to as the "RICE Maximum Achievable Control Technology (MACT)" adopted in Rule 62-204.800(11)(b), F.A.C.

The Diesel Emergency Black Start Generator is classified as an emergency generator according to 40 CFR 63.6675:

"Emergency stationary RICE means any stationary RICE that operates in an emergency situation. 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 is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Emergency stationary RICE may be operated 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. Emergency stationary RICE may also operate an additional 50 hours per year in non-emergency situations."

The following requirements apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

- N.1. Hours of Operation.** The diesel emergency black start generator (engine) is allowed to operate for no more than 500 hours per year in accordance with Rule 62-210.200, F.A.C. [Rule 62-210.200 (Definitions - Emergency Generator, F.A.C.; and, Permit No. 0570039-040-AC.]
- N.2. Hours of Operation.** The diesel emergency black start generator (engine) excluding emergency conditions is allowed to operate for no more than 100 hours per year (approximately two hours per week) for routine testing and maintenance purposes. [Permit No. 0570039-040-AC.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection N. Emissions Units -043 & -044

N.3. Sulfur Content. The diesel emergency black start generator (engine) shall be fired with ultra low sulfur diesel fuel (ULSD). The ULSD shall contain a maximum sulfur content of 0.0015 percent (%), by weight. [Permit No. 0570039-040-AC.]

Reporting Requirements

N.4. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

NESHAP 40 CFR 63 Requirements

N.5. NESHAP 40 CFR 63 Requirements - Subpart A. These emissions units shall comply with all applicable requirements of 40 CFR 63, Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. These emissions units shall comply with **Appendix 40 CFR 63 Subpart A** included with this permit. [Rule 62-204.800(11)(d)1., F.A.C.]

N.6. "RICE MACT" 40 CFR 63 Requirements - Subpart ZZZZ. These emissions units shall comply with all applicable requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), which have been adopted by reference in Rule 62-204.800(11)(b), F.A.C. These emissions units shall comply with **Appendix 40 CFR 63 Subpart ZZZZ** included with this permit. [Rule 62-204.800(11)(b), F.A.C.]

NESHAP 40 CFR 63 Reporting and Recordkeeping Requirements

N.7. Notification Requirements. In accordance with 40 CFR 63.6590(b) each engine is subject to the notification requirements of this Subpart. New stationary RICE (the diesel emergency black start generator) that operate exclusively as emergency units are subject only to initial notification requirements. [Rule 62-204.800(11), F.A.C.; and, 40 CFR 63.6590(b)]

N.8. Recordkeeping Requirement for Applicability Determinations. In accordance with 40 CFR 63.10 (b)(3) the owner or operator must keep a record of each applicability determination on site at the source for a period of five (5) years after the determination, or until the source changes its operations to become an affected source subject to the relevant standards, whichever comes first. [Rule 62-204.800(11), F.A.C.; and, 40 CFR 63.10(b)(3)]

NSPS 40 CFR 60 Requirements

N.9. NSPS Requirements - Subpart A. The diesel emergency black start generator (engine) shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

40 CFR 60.7, Notification and Recordkeeping

40 CFR 60.8, Performance Tests

40 CFR 60.11, Compliance with Standards and Maintenance Requirements

40 CFR 60.12, Circumvention

40 CFR 60.13, Monitoring Requirements

40 CFR 60.19, General Notification and Reporting Requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

N.10. NSPS "4-I" or "CI-ICE" 40 CFR 60, Subpart IIII. Pursuant to 40 CFR 63.6590(c), the permittee has elected to comply with the RICE MACT for the diesel emergency black start generator (engine) and the coal field diesel generator by meeting the requirements of the NSPS 40 CFR 60, Subpart IIII, attached as

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection N. Emissions Units -043 & -044

Appendix 40 CFR 60 Subpart IIII, to this permit. Pursuant to 40 CFR 63.6590(c), no further requirements apply to the engine under 40 CFR 63 Subpart ZZZZ. [Rules 62-204.800(11) & (8), F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection O. Emissions Units -041 & - 042

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
-041	SCCT 4A with a common electric generator that it shares with SCCT 4B
-042	SCCT 4B with a common electric generator that it shares with SCCT 4A

These emissions units consist of one PWPS FT8-3® SwiftPac® Aeroderivative simple cycle combustion turbine (SCCT)-generator peaking unit. SCCT 4A and SCCT 4B are coupled to one common generator having a nominal gross generation capacity of 62 MW. Each SCCT is equipped with water injection to minimize NOx emissions and an oxidation catalyst to minimize CO and VOC emissions. Each SCCT may only be operated in the simple cycle mode. Each SCCT is allowed to fire pipeline-quality natural gas (NG) containing no more than 2.0 grains of total sulfur per one hundred standard cubic feet (gr S/100 scf) and ultra low sulfur diesel fuel (ULSD) containing a maximum sulfur content of 0.0015 percent by weight.

{Permitting Notes: Nitrogen Oxides (NOx) emissions from units -041 and -042 are controlled by steam or water injection. Carbon monoxide emissions are controlled by an oxidation catalyst system. Units -041 and -042 began commercial operation on August 15, 2009. The generator nameplate rating for units -041 and -042 is 31 MW each, 62 MW total. Each unit has a separate, but identical, stack with the following parameters: Stack height = 60 feet; exit diameter = 9.5 feet; exit temperature = 893° F; and, actual volumetric flow rate = 430,737 actual cubic feet per minute (acfm). In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}

Essential Potential to Emit (PTE) Parameters

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

Unit No.	MMBtu/hr Heat Input	Fuel Type
-041, -042	342.7	Natural Gas (NG)
-041, -042	302.7	Ultra Low Sulfur Diesel (USLD)

Heat input rates are based on 100% load with evaporative cooling, 59° F ambient temperature, 52° F compressor inlet air temperature, and the higher heating value (HHV) of the fuel. Heat input rates will vary depending upon turbine characteristics, ambient conditions and evaporative cooling. The permittee shall have provided manufacturer’s performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. The manufacturer’s curves shall be reestablished and resubmitted to DEP within 45 days following the replacement of any combustion turbine components or major turbine tuning session that could reasonably affect the performance of the turbine. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), 62-213.440, F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 7.]

O.2. 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.]

O.3. Methods of Operation.

- a. Fuels. The fuels that are allowed to be burned in these units are:
 - (1) NG, Primary Fuel. The NG shall contain no more than 2.0 grains of sulfur per 100 standard cubic feet (2.0 gr S/100 scf).
 - (2) ULSD. The ULSD shall contain a maximum sulfur content of 0.0015%, by weight.
- b. Simple Cycle Mode. Each CT shall operate only in the simple cycle mode not to exceed the permitted hours of operation allowed by this permit (See Specific Condition O.4). This restriction is based on the permittee’s request, which formed the basis of the PSD applicability and emission standards specified in

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this permit. For any request to convert these units to combined cycle operation by installing/connecting to heat recovery steam generators, including changes to the fuel or quantity related to combined cycle conversion that may cause an increase in short or long-term emissions, the permittee shall submit a full PSD permit application complete with a proposed best available control technology (BACT) determination as if the SCCT peaking units had never been built.

[Rule 62-213.410, F.A.C. and Permit No. 0570039-040-AC, Specific Conditions 3, 8 & 9.]

- O.4. Hours of Operation.** SCCT 4A and SCCT 4B are allowed to operate in the peaking service mode for no more than 3,500 hr/calendar year each, including no more than 500 hr/calendar year each on ULSD. Any hour used to fire ULSD will decrease an hour that could have been used to fire NG. [Rule 62-210.200(PTE), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 6.]

Control Technology

- O.5. Wet Injection.** The permittee shall adjust, operate, and maintain a water injection system to reduce NO_x emissions from each SCCT. The water injection system shall be maintained and adjusted in accordance with the manufacturer's recommendations or determined best practices to minimize emissions. [Rule 62-4.070(3), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 4.]
- O.6. Oxidation Catalyst.** The permittee shall operate and maintain an oxidation catalyst system to reduce CO and VOC emissions from each SCCT. The system shall be maintained and operated in accordance with the manufacturer's recommendations or determined best practices to minimize emissions. [Rule 62-4.070(3), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 5.]

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 **O.7. - O.11.** are based on the specified averaging time of the applicable test method.

The mass emission rate standards are based on a turbine inlet temperature condition of 59 °F, evaporative cooling on, and using the higher heating value (HHV) of the fuel. Mass emissions rates may be adjusted to actual test conditions in accordance with the performance curves and/or equations on file with the Department. The emissions limits listed in Specific Conditions **O.7. - O.11.** are for each SCCT, not combined.

- O.7. Visible Emissions.** Visible emissions from each unit shall not exceed 10 percent opacity, as determined by annual testing. [Permit No. 0570039-040-AC, Specific Condition 10.]
- O.8. Nitrogen Oxide (NO_x).** NO_x emissions from each unit shall not exceed the following:
- When Firing Natural Gas.*
 - 25.0 ppmvd @ 15% oxygen (O₂) (NSPS) or,
 - 32.0 lb/hr/SCCT (SIP).
 - When Firing Ultra Low Sulfur Diesel.*
 - 42.0 ppmvd @ 15 O₂ (SIP) or,
 - 74.0 ppmvd @ 15 O₂ (NSPS) or,
 - 51.3 lb/hr/SSCT (SIP).
 - When Firing Both NG and ULSD.* Compliance with the NSPS limit is ensured by complying with either the NSPS limit, for NG, or the SIP limit, for ULSD, depending on the contribution of the fuels of the total heat input: if the total heat input contribution is equal to or greater than 50 percent from NG, you must meet the corresponding limit for a NG-fired turbine when you are burning that fuel; similarly, when your total heat input contribution is greater than 50 percent from ULSD, you must meet the corresponding limit for ULSD for the duration of the time that you burn that particular fuel.

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- d. *Demonstration of Compliance.* Continuous compliance shall be demonstrated with the concentration-based (ppmvd) NO_x emissions limits (4-hour rolling average) for each fuel type by data collected from the required continuous emissions monitoring system (CEMS). Compliance with the mass-based (lb/hour) NO_x emissions limits (3-run average) shall be demonstrated by data collected during the required annual Relative Accuracy Test Audit (RATA). When firing ULSD, compliance with the SIP limit ensures compliance with the NSPS limit of 74 ppmvd @ 15% O₂.

[40 CFR 60, Subpart KKKK and Permit No. 0570039-040-AC, Specific Condition 10.]

O.9. Carbon Monoxide (CO). CO emissions from each unit shall not exceed the following:

- a. *When Firing Natural Gas.*
(1) 21.0 ppmvd @ 15% O₂ (SIP) or,
(2) 9.1 lb/hr/SCCT (SIP).
- b. *When Firing Ultra Low Sulfur Diesel.*
(1) 5.1 ppmvd @ 15% O₂ (SIP) or,
(2) 2.1 lb/hr/SCCT (SIP).
- c. *Demonstration of Compliance.* Continuous compliance shall be demonstrated with the concentration-based (ppmvd) CO emissions limits (3-hour rolling average) for each fuel type by data collected from the required continuous emissions monitoring system (CEMS). Compliance with the mass-based (lb/hour) CO emissions limits (3-run average) shall be demonstrated by data collected during the required annual Relative Accuracy Test Audit (RATA).

[Permit No. 0570039-040-AC, Specific Condition 10.]

{Permitting Note: CO is used as a surrogate for VOC emissions as a demonstration of good combustion.}

O.10. Particulate Matter (PM). PM emissions are minimized by complying with the fuel sulfur specifications, combined with the efficient combustion design and operation of the turbines (good combustion). [Permit No. 0570039-040-AC, Specific Condition 10.]

{Permitting Note: Compliance with the fuel specifications, CO standards, and visible emissions standards shall serve as indicators of good combustion. No PM emissions limits or compliance demonstrations are imposed. Maximum expected PM/PM₁₀ emissions from each turbine are approximately 2.5 and 7.5 lb/hr for NG and ULSD, respectively.}

O.11. Sulfur Dioxide (SO₂). SO₂ emissions from each unit shall not exceed the following:

- a. *When Firing Natural Gas.*
(1) 2.0 grains (gr) of Sulfur (S)/100 standard cubic feet (scf) of natural gas (SIP) or,
(2) 0.90 lb/megawatt hour (MWh)/SCCT gross output (NSPS) or,
(3) 0.060 lb/MMBtu/SCCT heat input (NSPS).
- b. *When Firing Ultra Low Sulfur Diesel.*
(1) 0.0015% S content, by weight (SIP) or,
(2) 0.90 lb/MWh/SCCT gross output (NSPS) or,
(3) 0.060 lb/MMBtu/SCCT heat input (NSPS).
- c. *Demonstration of Compliance.* The fuel sulfur specifications effectively limit the potential emissions of SO₂ (and essentially sulfuric acid mist). For compliance purposes, the permittee elected to demonstrate that the fuel combusted will not exceed the potential sulfur emissions of 0.060 lb SO₂/MMBtu heat input (see Appendix 40 CFR 60, Subpart KKKK of the permit).

[40 CFR 60, Subpart KKKK and Permit No. 0570039-040-AC, Specific Conditions 8 & 10.]

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Excess Emissions

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

O.12. Definitions. Rule 62-210.200(Definitions), F.A.C., defines the following terms:

- a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
- b. *Shutdown* is the cessation of the operation of an emissions unit for any purpose.
- c. *Malfunction* is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner. [Permit No. 0570039-040-AC, Specific Condition 21.]

O.13. Excess Emissions Allowed. 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. [Rule 62-210.700(1), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 22.]

O.14. Excess Emissions Prohibited. Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 23.]

O.15. Allowable SIP CO and NO_x Data Exclusions. Provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized, CO and NO_x CEMS data collected during periods of startup, shutdown and malfunction may be excluded from the 3-hr rolling average and 4-hr rolling average, respectively, for compliance demonstrations only in accordance with the following requirements. All periods of data excluded shall be consecutive for each such episode and only data obtained during the described episodes (startup, shutdown malfunction and tuning) may be excluded. As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions replace the provisions in Rule 62-210.700(1), F.A.C.

- a. *Startup.* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 10 minutes of CEMS data shall be excluded for each gas turbine startup. For startups of less than 10 minutes in duration, only those minutes attributable to startup shall be excluded.
- b. *Shutdown.* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 10 minutes of CEMS data shall be excluded for each gas turbine shutdown. For shutdowns less than 10 minutes in duration, only those minutes attributable to shutdown shall be excluded.
- c. *Malfunction.* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than 120 minutes of CEMS data shall be excluded in a 24-hour period for each gas turbine due to malfunctions. Within one (1) working day of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CEMS data.
- d. *Tuning.* "Tuning" means adjusting the combustors in accordance with the manufacturer's recommendations (or industry standards) or modifying the water-to-fuel ratio to affect a change in the post-combustion air emissions. Such tuning sessions are infrequent. Excess CEMS emissions data collected during tuning may be excluded from the compliance averages.

The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown malfunction and tuning) shall be used to report annual emissions for

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the Annual Operating Report. [Rules 62-210.370(3), 62-210.700(5) and 62-213.440, F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 24.]

{Permitting Note: The provisions in Specific Condition O.15.d. were not included in permit No. 0570039-040-AC. The allowance to exclude excess emissions due to tuning is added here at applicant request pursuant to the authority of Rules 62-210.700(5) and 62-213.440, F.A.C., as it is preferable to allow short periods of excess emissions during a tuning activity rather than experiencing long periods of higher emissions from a poorly tuned unit. This provision is only effective for the duration of this Title V permit and will need to be re-requested and approved upon renewal. To become a permanent provision, it should be added to the underlying construction permit for these units at some point in the future if that construction permit is opened for revision.}

- O.16. Excess Emissions NSPS – NO_x.** See 40 CFR 60.4350 and 4380 in Appendix KKKK (NSPS Subpart KKKK Requirements for Stationary Combustion Turbines) of this permit. [40 CFR 60.4350 and 60.4380; and, Permit No. 0570039-040-AC, Specific Condition 25.]
- O.17. Excess Emissions NSPS - SO₂.** See 40 CFR 60.4385 in Appendix 40 CFR 60 KKKK (NSPS Subpart KKKK Requirements for Stationary Combustion Turbines) of this permit. [40 CFR 60.4385 and Permit No. 0570039-040-AC, Specific Condition 26.]

Continuous Monitoring Requirements

- O.18. Continuous Emissions Monitoring Systems (CEMS).** The permittee shall calibrate, maintain and operate the diluent CEMS to measure CO₂ emissions and CEMS to measure and record the emissions of CO and NO_x from each gas turbine in a manner sufficient to demonstrate continuous compliance with the emission standards of this section.
- NO_x Monitor.** Each NO_x monitor shall be certified pursuant to the specifications of 40 CFR 75. Quality assurance procedures shall conform to the requirements of 40 CFR 75. The annual and required Relative Accuracy Test Audit (RATA) tests required for the NO_x monitor shall be performed using EPA Method 7E or 20 in 40 CFR 60, Appendix A.
 - CO Monitor.** Each CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The annual and required RATA tests required for the CO monitor shall be performed using EPA Method 10 in 40 CFR 60, Appendix A, and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
 - SO₂ Monitoring.** SO₂ monitoring will be in accordance with 40 CFR 75, Appendix TR requirements (using sulfur content and fuel flow rates).
 - Diluent Monitor.** The carbon dioxide (CO₂) content of the flue gas shall be monitored at the location where CO and NO_x are monitored to correct the measured emissions rates to 15% oxygen. The oxygen content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75. [Rule 62-297.520, F.A.C.; 40 CFR 75; Permit No. 0570039-040-AC, Specific Condition 27.; and, Appendix CEMS for EU 41 and 42 of this permit.]
- O.19. CEMS Data Requirements.** The CEMS shall be calibrated, maintained and operated in the gas turbine stacks to measure and record the emissions of CO and NO_x in a manner sufficient to demonstrate compliance with the CEMS-based emission limits of this section. The CEMS shall express the results in units of ppmvd corrected to 15% oxygen. Upon request by the Department, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable NO_x standards of 40 CFR 60, Subpart KKKK, Table 1. The permittee shall be in compliance with the terms and conditions contained in Appendix CEMS for EU 41 and 42, Standard Continuous Monitoring Requirements, of this permit. [Permit No. 0570039-040-AC, Specific Condition 28.]

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O.20. CEMS Annual Emissions Requirement: The owner or operator shall use data from the NO_x and CO CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rule 62-210.370(3), F.A.C., Annual Operating Report. 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. [Rules 62-210.200(Definitions) and 62-210.370(3), F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 29.]

O.21. CEMS - Appendix CEMS for EU 41 and 42. Additional requirements applicable to the CEMS are given in the attached **Appendix CEMS for EU 41 and 42**, which is a part of this permit. [Permit No. 0570039-040-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.}

O.22. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Methods for Determining Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content: These methods shall be performed as necessary to support other methods.
5	Method for Determining Particulate Matter Emissions
7E	Determination of NO _x Emissions from Stationary Sources (Instrumental)
6 or 6C	Determination of SO ₂ Emissions from Stationary Sources
8	Determination of SAM and SO ₂ Emissions from Stationary Sources
9	Visual Determination of Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography {Note: EPA Method 18 may be used (optional) concurrently with EPA Method 25A to deduct emissions of methane and ethane from the measured VOC emissions.}
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxide Emissions Rates
20	Determination of NO _x , SO ₂ , and Diluent Emissions from Stationary Combustion Turbines
25A	Determination of Total Gaseous Organic Concentrations Using a Flame Ionization Analyzer

The 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 for compliance testing unless prior written approval is received from the Administrator of the Department's Emissions Monitoring Section in accordance with an alternate sampling procedure pursuant to Rule 62-297.620, F.A.C. [40 CFR 60, Appendix A; Rule 62-204.800, F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 13.]

O.23. 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.]

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- O.24. Annual Compliance Testing.** During each federal fiscal year (October 1st to September 30th), annual compliance tests for visible emissions shall be conducted. For each visible emissions test, emissions of CO and NO_x recorded by the CEMS shall also be reported. [Rules 62-297.310(7)(a) and (b), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 16.]
- O.25. Compliance Tests Prior To Renewal.** See Specific Condition **O.24.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]
- O.26. Visible Emissions.** The test method for visible emissions shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C. [Rule 62-297.401, F.A.C. and Permit No. 0570039-040-AC, Specific Condition 13.]
- O.27. CO Compliance.** Continuous compliance shall be demonstrated with the 3-hour rolling average CO emission limits by data collected by the required CEMS. CO will be used as a surrogate for VOC emissions as a demonstration of good combustion. [Rule 62-4.070(3), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 13.]
- O.28. Nitrogen Oxide.** The permittee shall conduct an annual Relative Accuracy Test Audit (RATA) on each SCCT to demonstrate compliance with the short-term NO_x emission limits (ppmvd @ 15% O₂ and lb/hr (mass emissions)) per fuel type. Continuous compliance shall be demonstrated with the 4-hour rolling average NO_x emission limits by data collected from the required continuous emissions monitoring system (CEMS). When firing ULSD, compliance with the SIP limit ensures compliance with the NSPS limit of 74 ppmvd @ 15% O₂. When firing both NG and ULSD, compliance with the NSPS limit is ensured by complying with either the NSPS limit, for NG, or the SIP limit, for ULSD, depending on the contribution of the fuels of the total heat input: if the total heat input contribution is equal to or greater than 50 percent from NG, you must meet the corresponding limit for a NG-fired turbine when you are burning that fuel; similarly, when your total heat input contribution is greater than 50 percent from ULSD, you must meet the corresponding limit for ULSD for the duration of the time that you burn that particular fuel. [40 CFR 60.4350(g) and Permit No. 0570039-040-AC, Specific Condition 13.]
- O.29. NSPS Compliance Demonstrations for NO_x.** See 40 CFR 60.4400 and 4405 in Appendix 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines of this permit for the compliance demonstration requirements for NO_x. [40 CFR 60.4400 and 60.4405; and Permit No. 0570039-040-AC, Specific Condition 17.]
- O.30. NSPS Compliance Demonstrations for Sulfur.** See 40 CFR 60.4415 in Appendix 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines of this permit for the compliance demonstration requirements for SO₂. A one-time compliance test on one CT was conducted for SO₂ mass emissions in order to satisfy compliance with the mass limit and the quality of the NG and ULSD. Afterwards, the use of NG and ULSD in accordance with the permit and 40 CFR 60.4415 will be used as a surrogate for SO₂ emissions. [40 CFR 60.4415 and Permit No. 0570039-040-AC, Specific Condition 18.]
- O.31. Continuous Compliance.** The permittee shall demonstrate continuous compliance with the 3-hour rolling average CO emissions standards and with the 4-hour rolling average NO_x emission standards based on data collected by the required CEMS. Within 45 days of conducting any RATA on a CEMS that represents the annual compliance test, the permittee shall submit a report to the Compliance Authority summarizing results of the RATA. If the RATA on a CEMS was not conducted as an annual compliance test, then the results can be submitted with the SIP Quarterly or Semiannual Report. Compliance with the CO emission standards also serves as an indicator of efficient fuel combustion, which also reduces emissions of PM. [Rules 62-4.070(3) and 62-297.310(7)(a) and (b), F.A.C.; and, Permit No. 0570039-040-AC, Specific Condition 19.]

Recordkeeping and Reporting Requirements

- O.32. Reporting Schedule.** The following reports and notifications shall be submitted to the Compliance Authority:

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Report	Reporting Deadline	Related Conditions
CEMS RATA Reports	15 days prior to RATA	O.38.
Excess Emissions Reporting	Various	O.39.
Notification of Tuning	One day prior to tuning	O.40.

[Rule 62-213.440, F.A.C.]

O.33. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

O.34. CEMS RATA Reports. At least 15 days prior to conducting any RATA on a CEMS, the permittee shall notify the Compliance Authority of the schedule (letter, email, fax, or phone call). A summary of the RATA reports shall be provided upon written request of the Compliance Authority and in the SIP Excess Emissions Report as specified in Specific Condition **O.39**. [Rule 62-4.070(3), F.A.C.]

O.35. Excess Emissions Reporting.

- a. *Malfunction Notification.* If emissions in excess of a standard (subject to the specified averaging period) occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.
- b. *SIP Excess Emissions Report.* Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority of the following for each gas turbine using the NSPS format in 40 CFR 60.7(c), Subpart A: a summary of the 4-hour rolling average NO_x compliance periods for the quarter; a summary of the 3-hour rolling average CO compliance periods for the quarter; a summary of NO_x and CO data excluded for the quarter; a summary of any RATA tests performed during the quarter; and a summary of the CEMS systems monitor availability for the quarter.
 - (1) If four consecutive quarterly reports demonstrate compliance with the CEMS-based emissions standards, the reporting frequency may be reduced to semiannual reporting. As part of the fourth consecutive satisfactory quarterly report, the permittee shall provide written notification of its intent to reduce the reporting frequency to a semiannual basis. The notification shall include a statement that the units were in full compliance during the four consecutive quarters and that reporting will be reduced to a semiannual basis. Semiannual reports shall include all of the above information required for each quarter in the semiannual period. The permittee shall continue to comply with all other record keeping and monitoring provisions.
 - (2) If reports are being submitted on a semiannual basis and a unit is not in compliance with the CEMS-based emissions standards, the permittee shall immediately (within one day of detection) notify the Compliance Authority of the compliance status and reestablish quarterly reporting beginning with the current quarter. If compliance is reestablished for four consecutive quarters, semiannual reporting may resume as specified above.
- c. *NSPS Reporting.* For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under 40 CFR 60, Subpart KKKK, the owner or operator must submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown and malfunction.

{Note: If there are no periods of excess emissions as defined in 40 CFR 60, Subpart KKKK, a statement to that effect may be submitted with the SIP Quarterly Report to suffice for the NSPS Semiannual Report.}

[40 CFR 60.7 and 60.4375; Rules 62-4.130, 62-204.800 and 62-210.700(6); and, Permit No. 0570039-040-AC, Specific Condition 36.]

O.36. Notification of Tuning. If emissions in excess of a standard could reasonably be expected to occur due to a planned tuning activity, the permittee shall notify the Compliance Authority at least one working day prior to the expected activity of the nature, extent, and duration of the planned tuning activity. In addition, the

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Department may request a written summary report of the extent and duration of the resulting excess emissions. [Rule 62-213.440, F.A.C.]

- O.37. Test Reports.** The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix TR, Facility-Wide Testing Requirements of this permit. [Rule 62-297.310(8), F.A.C. and Permit No. 0570039-040-AC, Specific Condition 30.]
- O.38. Monitoring and Recording of Capacity.** The permittee shall monitor and record the heat input of each CT on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). This shall be achieved through monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75, Appendix D, and recording the data using a monitoring component of the CEMS required above (see Appendix CEMS for EU 41 and 42 of this permit). [Permit No. 0570039-040-AC, Specific Condition 31.]
- O.39. Monthly Operations Summary.** By the 15th calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the combustion turbine for the previous month of operation: fuel consumption, hours of operation and the updated calendar year totals for each. Information recorded and stored as an electronic file shall be available for inspection and printing within at least three days of a request by the Department. [Permit No. 0570039-040-AC, Specific Condition 32.]
- O.40. Fuel Sulfur Records.** The permittee shall demonstrate compliance with the fuel sulfur limits specified in this permit by maintaining the following records of the sulfur contents.
- a. *Natural Gas Sulfur Limit:* Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports obtained from the vendor indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. A representative sample shall be collected using ASTM D5287. Methods for determining the sulfur content of the natural gas shall be ASTM methods D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gaseous Processors Association Standard 2377, or more recent versions, or through provisions listed in 40 CFR 60, Subpart KKKK that allows alternate NG fuel sulfur monitoring.
 - b. *ULSD Fuel Sulfur Limit:* Compliance with the fuel sulfur limit for ULSD fuel shall be demonstrated by keeping each bill of lading report obtained from the vendor indicating the sulfur content, percent by weight, of the ULSD fuel being delivered. A representative sample shall be collected using ASTM D5287. Methods for determining the sulfur content of the ULSD fuel shall be ASTM methods D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gaseous Processors Association Standard 2377, or more recent versions, or through provisions listed in 40 CFR 60, Subpart KKKK that allows alternate sulfur monitoring for ULSD.

The above methods shall be used to determine the fuel sulfur content in conjunction with the provisions of 40 CFR 60.4415 contained in Appendix 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines of this permit. [40 CFR 60.4415; Rules 62-4.070(3) and 62-4.160(15), F.A.C.; and Permit No. 0570039-040-AC, Specific Condition 33.]

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Subsection P. Emissions Units -029 & - 030

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

E.U. ID No.	Brief Description
<i>Fuel Blending and Crushing</i>	
-029	Fuel Blending Bin Cyclone Collectors (FH-032 through FH-035)
-030	Fuel Mill Cyclone Collectors (FH-048 and FH-049)

These emissions units consist of solid fuel crushing and blending activities as described in more detail below.

Solid fuel (consisting of coal and petcoke) is unloaded from ships and barges into the solid fuel yard (see EU ID No. -010), the blending bins or directly to the tripper room via belt conveyors. Solid fuel may also be received/unloaded by railcar (see EU ID No. -047) and conveyed to the fuel yard. Solid fuel from the storage piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins, which consists of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site (see EU ID No. -046). Particulate matter (PM) emissions from the conveyors in the blending bins are controlled by 4 rotoclones. One at the conveyor drop and 3 additional rotoclones (one for every 2 bins) control particulate matter from ventilation of the blending bins. Blending bins can either feed the transloader, or solid fuel can be conveyed, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotoclones. E.U. ID Nos. -029 and -030 began commercial operation in 1970. The fuel blending bin cyclones collectors and the fuel mill cyclone collectors each have their own stacks with the following stack parameters: height, 179 feet; diameter, 1.67 feet; exit temperature, 77 degrees F; and, actual stack gas flow rate, 9,400 acfm.

{Permitting note(s): These emissions units are regulated under Rule 212.400(5), F.A.C., Prevention of Significant Deterioration [PSD-FL-040]; Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations; Rule 62-210.300, F.A.C., Permits Required; Power Plant Siting Certification [PA 79-12]; and, Chapter 1-3.52, Rules of the EPC, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}

Authorized Emissions Points

The emissions units contained in this subsection are comprised of the following emissions points:

E.U. ID No. -029: Fuel Blending Bin Cyclone Collectors	
Point ID	Description of Emissions Point
FH-032-FH035	Conveyors Q1 and Q2 to Blending Bins

E.U. ID No. -030: Fuel Mill Cyclone Collectors	
Point ID	Description of Emissions Point
FH-048	Conveyor T1 to Crusher #1
FH-049	Conveyor T2 to Crusher #2

Essential Potential to Emit (PTE) Parameters

{Permitting Note: The handling capacity for the conveyors and equipment that comprises the solid fuel yard emissions points is not specifically limited; however, the design capacity for the majority of the handling equipment is 4,000 tons per hour. The total annual solid fuel handling capacity is inherently limited by the amount of fuel that Boilers 1 – 4 can burn (5-6 million tons per year) plus the amount of solid fuel that can be transloaded for off-site shipment (1,428,030 tons per year, see E.U. ID No. -046). In addition, permit No.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection P. Emissions Units -029 & - 030

0570039-041-AC established an annual limit of 8 million tons per year of solid fuel that can be received by railcar (see E.U. ID No. -047).}

P.1. Methods of Operation – Materials Handling. The materials that are allowed to be handled by these emissions units are coal, petroleum coke, slag and residual coal (generated at the TEC Polk Power Station). [PA 79-12 and Permit No. 0570039-012-AC]

P.2. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C. and PA 79-12]

Control Technology

P.3. PM Control Devices. Particulate matter emissions shall be controlled by use of control devices. [PA 79-12.]

{Permitting Note: This requirement is satisfied by the use of cyclone collectors on the blending bins and finish mill.}

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 **P.4.** and **P.5.** are based on the specified averaging time of the applicable test method.

P.4. VE/Opacity Limit. As determined by annual compliance tests, visible emissions shall not exceed 5% opacity. [Rule 62.296.711(2), F.A.C.; Chapter 1-3.52, Rules of the EPC; and, PA 79-12]

P.5. Particulate Matter (PM). As determined by annual compliance tests, emissions of PM from the stacks of the cyclone collectors shall not exceed 0.03 grains per dry standard cubic feet (gr/dscf). [Rule 62-296.711(2)(b), F.A.C. and PA 79-12]

Excess Emissions

P.6. Excess Emissions Allowed. 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. [Rule 62-210.700(1), F.A.C.]

P.7. Excess Emissions Prohibited. 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.]

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.}

P.8. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Method 5	Method for Determining Particulate Matter Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection P. Emissions Units -029 & - 030

- P.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.]
- P.10.** Annual Compliance Tests. During each federal fiscal year (October 1st to September 30th), VE and PM tests shall be performed to demonstrate compliance with the standards specified in Specific Conditions **P.4.** and **P.5.** [Rules 62-297.310(7), F.A.C. and 62-4.070(1) & (3) (Reasonable Assurance), F.A.C.; and, PA 79-12.]
- P.11.** Compliance Test Prior To Renewal. Prior to permit renewal, VE and PM tests shall be performed to demonstrate compliance with the standards specified in Specific Conditions **P.4.** and **P.5.** [Rule 62-297.310(7)(a)3., F.A.C.]
- P.12.** Visible Emissions Test. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual test shall be 30 minutes. [Rules 62-4.070(3), 62-296.711(3)(a) and 62-297.310(4)(a)2., F.A.C.]
- P.13.** PM Test. Compliance with the PM limit of this permit shall be demonstrated by an annual compliance test using EPA Method 5. The minimum sample volume shall be 30 dry standard cubic feet. [Rule 62-296.711(3)(b), F.A.C.]

Recordkeeping and Reporting Requirements

- P.14.** Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]
- P.15.** Fuel Daily Log. The permittee shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values. [PA 79-12]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection Q. Emissions Unit -046

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

E.U. ID No.	Brief Description
	<i>Solid Fuel Yard</i>
-046	Transloading and Off-site Transfer

This emissions unit is housed within the solid fuel yard and is comprised of transfer and loading equipment designed to take material from the blending bins (E.U. ID No. -029) and/or the storage piles in the fuel yard (E.U. ID No. -010) and, using front-end loaders, load it onto trucks or trains for shipment to off-site locations. The material that is allowed to be loaded for off-site shipment is coal, petcoke and slag. The main purpose of the transloading operation is to provide coal and petcoke to the Tampa Electric Company Polk Power Station; however, the permittee is authorized to operate as a fuel and slag supplier to other non-Tampa Electric Company facilities, as well. The coal or petcoke is treated with a chemical surfactant prior to arriving at the Big Bend Station. The slag has minimal dust potential due to its glassine properties and therefore does not need to be treated with a chemical surfactant.

{Permitting note(s): This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required; Rule 62-296.711, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter (PM) - Materials Handling, Sizing, Screening, Crushing and Grinding Operations; Power Plant Siting Certification [PA 79-12]; and, Chapter 1-3.52, Rules of the EPC, Rules of the Environmental Protection Commission (EPC) of Hillsborough County.}

Authorized Emissions Points

Emissions unit ID No. -046 is comprised of the following emissions points:

Point ID	Description of Emissions Point
FH-065	Loadout Conveyor to Rail Transfer Conveyor
FH-066	Railcar Loading
FH-067	Non-TEC Fuel Stockpile to Loadout Conveyor
FH-068	Non-TEC Fuel Truck Loading
FH-069	Polk Fuel Truck Loading
FH-074a	Reclaim from Petcoke Storage Pile to Trucks
FH-074b	Reclaim from Coal Storage Pile to Trucks
FH-074c	Reclaim from Slag Storage Pile to Trucks
FH-075a	Truck Traffic (paved roads, empty trucks)
FH-075b	Truck Traffic (paved roads, full trucks)
FH-076a	Truck Traffic (unpaved roads, empty trucks)
FH-076b	Truck Traffic (unpaved roads, full trucks)

Essential Potential to Emit (PTE) Parameters

Q.1. Permitted Capacity.

- a. *Hourly Limit.* From each fuel transloading source/emissions point (i.e., off-loading and loading of fuel/slag for export from Big Bend Station), the maximum hourly transloading transfer of fuel shall not exceed 4,000 tons, 24-hour rolling average. [PA 79-12; PA 79-12C and D; and Permit No. 0570039-025-AC]
- b. *Annual Limits.*
 - (1) The maximum solid fuel/slag transloading rates for these emissions points shall not exceed 1,428,030 tons per year. [PA 79-12; PA 79-12C and D; and Permit No. 0570039-025-AC]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection Q. Emissions Unit -046

(2) The maximum annual transloading rates for Emissions Points FH-74a – FH-76b shall not exceed 150,000 tons per year for each material (coal, petcoke, slag) and 450,000 tons per year for all three materials combined; and, only one material shall be transloaded at a time. [Permit No. 0570039-025-AC]

Q.2. 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.]

Q.3. Methods of Operation.

- a. *Materials Allowed.* The materials that are allowed to be handled by the emissions points that comprise this emissions unit are coal, petroleum coke and slag.
 - b. *Material Not Allowed.* The emission points listed above as FH-074a, b and c, FH-075a and b, and FH-076a and b are not allowed to transload residual coal.
- [PA 79-12 and Permit No. 0570039-025-AC]

Q.4. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C. and Permit No. 0570039-025-AC]

Control Technology

Q.5. Controls of Particulate Matter. The emissions related to the transloading activities is fugitive in nature resulting from unconfined emissions. Reasonable precautions to prevent unconfined emissions of particulate matter from the transloading-related emissions points include:

- a. Paving and maintenance of roads, parking areas and yards where possible.
- b. Application of water or chemicals to control emissions as needed.
- c. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- d. Landscaping or planting of vegetation.
- e. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- f. Confining abrasive blasting where possible.
- g. Maintaining enclosures or coverings of conveyor systems and transfer points where possible.
- h. Trucks used to transport coal, petcoke or slag shall utilize tarps at all times except when loading/unloading.

[Rules 62-296.320(4)(c) and Permit No. 0570039-025-AC]

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 Conditions **Q.6.** is based on the specified averaging time of the applicable test method.

Q.6. Visible Emissions. Visible emissions generated by fugitive or unconfined particulate matter from this transloading operation shall not exceed 20% opacity. [Rule 62-296.320(4)(b)1., F.A.C.; PA-79-12; and, Permit No. 0570039-025-AC.]

Excess Emissions

Q.7. Excess Emissions Allowed. 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. [Rule 62-210.700(1), F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection Q. Emissions Unit -046

Q.8. Excess Emissions Prohibited. 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.]

Test Methods and Procedures

Q.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Method 9	Visual Determination of the Opacity of Emissions

The above methods are described in Chapter 62-297, F.A.C. and/or 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. [Chapter 62-297, F.A.C.]

Q.10. 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.]

Q.11. Annual Compliance Test. Annual testing shall be performed on emissions points FH-074a and FH-074b. For the purpose of the VE test, the hourly transloading rate to trucks at the subject emissions points shall be as close to 144 tons per hour as practicable. [Rules 62-204.800, 62-297.310(7)(a)4. and 62-297.400, F.A.C.; and, Permit No. 0570039-025-AC]

{Permitting note: No annual testing is required for emission point FH-074c based on the initial visible emissions test conducted on May 2, 2007 indicating that slag handling has minimal emissions.}

Q.12. Compliance Test Prior To Renewal. Prior to permit renewal, VE tests shall be conducted on emissions points FH-074a and FH-074b. For the purpose of the VE test, the hourly transloading rate to trucks at the subject emissions points shall be as close to 144 tons per hour as practicable. [Rule 62-297.310(7)(a)3., F.A.C. and Permit No. 0570039-025-AC]

Q.13. Visible Emissions Test. Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of the annual test shall be 30 minutes. [Rules 62-4.070(3) and 62-297.310(4)(a)2., F.A.C.; and, Permit No. 0570039-025-AC]

Recordkeeping and Reporting Requirements

Q.14. Recordkeeping and Reporting. The number of railcars and trucks and the quantity and type of material loaded and transported off-site by each fuel transloading operation emissions point covered in this permit (i.e., off-loading and loading of fuel or slag {for export from Big Bend Station}) shall be recorded, maintained, and kept on file for a minimum of five years. The annual quantity of each transloaded material shall be submitted in the Annual Operation Report. All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [PA 79-12 and Permit No. 0570039-025-AC]

Q.15. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection R. Emissions Unit -047

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

E.U. ID No.	Brief Description
	<i>Solid Fuel Yard</i>
-047	Railcar Unloading and Conveying System

As an alternative to receiving solid fuel or slag by ship and/or barge, these materials may be delivered by railcar in the railcar unloading building. The railcar unloading building is an enclosed structure (except for the railcar entrance and exit openings), designed to receive material through a slow and controlled continuous unloading process. The railcar will drop the material as each railcar unit enters the unloading building and will continue to discharge the material from its tapered bottom chutes until the railcar reaches the exit end of the building. Once the material is discharged from the railcars, it drops through a stationary safety screen and into collecting hoppers. Each collecting hopper has tapered discharge chutes equipped with slide gates. From the collecting hoppers, the material falls directly onto a variable speed belt which feeds to the series of conveyors that transfers the material to the existing P1 or F1 conveyors of the solid fuel yard (see E.U. ID No. -010). The series of conveyors associated with the Railcar Coal Unloading System consist of conveyors C-10, C-11, C-12, C-13, C-14, C-15 and C-16. The fugitive emission controls include covers on all belt conveyors, enclosures on all transfer/drop points, and a fog type dust suppression system utilizing misters and surfactants is used within the enclosures as needed. The railcar unloading and conveying system is designed for a transport rate of 4,000 tons per hour (TPH) (24-hour rolling average).

Authorized Emissions Points

Emissions unit ID No. -047 is comprised of the following emissions points:

Point ID	Description of Emissions Point
RC-1	Train Car Drop Unloading to Belt Feeder BF-1
RC-2	Transfer from BF-1 to Conveyor C-10
RC-3	Conveyor C-10 to Conveyor C-11
RC-4	Conveyor C-11 to Conveyor C-12
RC-5	Conveyor C-12 to Conveyor C-13
RC-6	Conveyor C-13 to Conveyor C-14
RC-7	Conveyor C-14 to Conveyor C-15
RC-8	Conveyor C-15 to Conveyor C-16 or Conveyor P
RC-9	Conveyor C-16 Drop to Conveyor F

Essential Potential to Emit (PTE) Parameters

- R.1. Permitted Capacity.** The maximum unloading rate is 4,000 tons per hour (24-hour rolling average). The maximum annual transfer for the railcar unloading operations is 8,000,000 tons per year. [Rule 62-210.200(PTE), F.A.C. and Permit No. 0570039-041-AC]
- R.2. 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.]
- R.3. Methods of Operation.** The materials that are allowed to be handled in the Railcar Unloading and Conveying System are coal, petcoke and slag. [Rule 62-213.440, F.A.C. and Permit No. 0570039-041-AC]
- R.4. Hours of Operation.** The hours of operation are not limited (8,760 hours per year). [Rules 62-210.200 (PTE) and 62-213.440, F.A.C.]

Control Technology

- R.5. Railcar Coal Unloading Building.** The permittee shall utilize the water/surfactant dust suppression

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection R. Emissions Unit -047

system to control particulate matter emissions from the railcar unloading hopper.
[Rule 62-213.440, F.A.C. and Permit No. 0570039-041-AC]

R.6. Railcar Coal Unloading Conveying System. The permittee shall utilize a water/surfactant dust suppression system to control particulate matter emissions from the railcar unloading conveying system.
[Rule 62-213.440, F.A.C. and Permit No. 0570039-041-AC]

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 Conditions **R.7.** is based on the specified averaging time of the applicable test method.

R.7. Opacity. As determined by EPA Method 9, visible emissions from the railcar coal unloading system shall not exceed 20% opacity. [40 CFR 60, Subpart Y (Standards of Performance for Coal Preparation Plants) and Permit No. 0570039-041-AC]

{Permitting Note: In addition, the requirements in 40 CFR 60, New Source Performance Standard (NSPS) Subpart Y for Coal Preparation Plants, have been proposed to be amended on April 28, 2008 and would be applicable to all sources addressed in this standard and constructed after that date. These amended standards, including installing a baghouse on the railcar unloading building may become applicable to this project when these standards become final and are adopted in the Florida rules.}

Excess Emissions

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

R.8. Excess Emissions Allowed. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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. [Rule 62-210.700(1), F.A.C.]

R.9. Excess Emissions Prohibited. 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.]

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.}

R.10. Test Methods. Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Methods for Determining Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content: These methods shall be performed as necessary to support other methods. (IF REQUIRED)
5	Method for Determining Particulate Matter Emissions (IF REQUIRED)
9	Visible Emissions Test

The 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 for compliance testing unless prior written approval is received from the

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

Subsection R. Emissions Unit -047

Administrator of the Department's Emissions Monitoring Section in accordance with an alternate sampling procedure pursuant to Rule 62-297.620, F.A.C. [Rule 62-204.800, F.A.C. and 40 CFR 60, Appendix A]

- R.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. [Rule 62-297.310, F.A.C.]
- R.12. Annual Compliance Tests.** During each federal fiscal year (October 1st to September 30th), the Railcar Unloading Building vents shall be tested to demonstrate compliance with the emissions standard for visible emissions. [Rule 62-297.310(7)(a)4, F.A.C. and Permit No. 0570039-041-AC]

Reporting and Recordkeeping Requirements

- R.13. Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements. [Rule 62-213.440, F.A.C.]

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

Operated by: Tampa Electric Company
ORIS Code: 0645

Subsection A. This Subsection addresses Acid Rain, Phase II SO₂.

The emissions units listed below are regulated under Phase II SO₂ of the federal Acid Rain Program.

E.U. ID No.	Brief Description
-001	Unit No. 1 Steam Generator
-002	Unit No. 2 Steam Generator
-003	Unit No. 3 Steam Generator
-004	Unit No. 4 Steam Generator

- A.1.** The Phase II SO₂ Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the application(s) listed below:
- a. DEP Form No. 62-210.900(1)(a) - Form, Effective: 3/16/08, received on June 6, 2008, and signed by the Designated Representative on June 5, 2008, which is included at the end of this subsection.
[Chapter 62-213, F.A.C.; and, Rule 62-214.320, F.A.C.]
- A.2.** Sulfur dioxide (SO₂) Emission Allowances. SO₂ emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.
- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
 - b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
 - c. Allowances shall be accounted for under the Federal Acid Rain Program.
[Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]
- A.3.** Comments, Notes, and Justifications; None.

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: New Revised Renewal

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Big Bend	Florida	0645
Plant name	State	ORIS/Plant Code

STEP 2

Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO₂ Opt-in unit, enter "yes" in column "b".

For new units or SO₂ Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO ₂ Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO ₂ Opt-in Units Commence Operation Date	New or SO ₂ Opt-in Units Monitor Certification Deadline
BB01	No	Yes	N/A	N/A
BB02	No	Yes	N/A	N/A
BB03	No	Yes	N/A	N/A
BB04	No	Yes	N/A	N/A
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

Big Bend

Plant Name (from STEP 1)

STEP 3

**Read the
standard
requirements.**

Acid Rain Part Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part.
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
 - (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
- (4) For applications including a SO₂ Opt-in unit, a monitoring plan for each SO₂ Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO₂ Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

**STEP 3,
Continued.**

<p>Big Bend</p> <p>Plant Name (from STEP 1)</p>
--

Recordkeeping and Reporting Requirements (cont)

- (iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

- No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
 - (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
 - (3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law,
 - (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
 - (5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

**STEP 4
For SO₂ Opt-in
units only.**

**In column "f" enter
the unit ID# for
every SO₂ Opt-in
unit identified in
column "a" of
STEP 2.**

**For column "g"
describe the
combustion unit
and attach
information and
diagrams on the
combustion unit's
configuration.**

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Big Bend
Plant Name (from STEP 1)

STEP 5

For SO₂ Opt-in units only. (Not required for SO₂ Opt-in renewal applications.)

In column "j" enter the unit ID# for every SO₂ Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO ₂ Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO ₂ Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO ₂ Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO ₂ Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

STEP 6

For SO₂ Opt-in units only.

Attach additional requirements, certify and sign.

- A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
- B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
- C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
- D. Attach a complete compliance plan for SO₂ under 40 CFR 72.40.
- E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
- F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

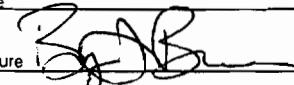
Signature	Date
-----------	------

STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Byron T. Burrows Name	Manager, Air Programs Title
Tampa Electric Company Owner Company Name	
(813) 228-1282 Phone	btburrows@tecoenergy.com E-mail address
Signature 	Date 6/5/08

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

Subsection B. This subsection addresses Acid Rain, Phase II NOx.

{Permitting note: The U.S. EPA issued Acid Rain Phase I permit(s)}

The emissions units listed below are regulated under Acid Rain Part, Phase II NOx.

E.U. ID No.	Brief Description
-001	Unit No. 1 Steam Generator
-002	Unit No. 2 Steam Generator
-003	Unit No. 3 Steam Generator
-004	Unit No. 4 Steam Generator

- B.1.** The Acid Rain Phase II NOx Compliance Plan application(s) submitted for this facility, as approved by the Department, are a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:
- a. Phase II NOx Compliance Plan, EPA Form 7610-28 (12-03), received on October 7, 2009, and signed by the Designated Representative on October 6, 2009, which is included at the end of this subsection. [Chapter 62-213 and Rule 62-214.320, F.A.C.]

- B.2.** Nitrogen oxide (NO_x) requirements for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID No.	NOx limit ¹
-001	BB01	<p>The Florida Department of Environmental Protection approves a NOx compliance plan for this unit. The compliance plan is effective for calendar year 2010 through calendar year 2014.</p> <p>This unit's applicable emission limitation for each year of the plan, is 0.84 lb/MMBtu from 40 CFR 76.6(a)(3) for wet bottom boilers.</p> <p>In addition to the described NOx compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NOx compliance plan and the requirements covering excess emissions.</p>
-002	BB02	<p>The Florida Department of Environmental Protection approves a NOx compliance plan for this unit. The compliance plan is effective for calendar year 2010 through calendar year 2014.</p> <p>This unit's applicable emission limitation for each year of the plan, is 0.84 lb/MMBtu from 40 CFR 76.6(a)(3) for wet bottom boilers.</p> <p>In addition to the described NOx compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NOx compliance plan and the requirements covering excess emissions.</p>
-003	BB03	<p>The Florida Department of Environmental Protection approves a NOx compliance plan for this unit. The compliance plan is effective for calendar year 2010 through calendar year 2014.</p> <p>This unit's applicable emission limitation for each year of the plan, is 0.84 lb/MMBtu from 40 CFR 76.6(a)(3) for wet bottom boilers.</p> <p>In addition to the described NOx compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NOx compliance plan and the requirements covering excess emissions.</p>

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

E.U. ID No.	EPA ID No.	NOx limit ¹
-004	BB04	<p>The Florida Department of Environmental Protection approves a NOx compliance plan for this unit. The compliance plan is effective for calendar year 2010 through calendar year 2014.</p> <p>This unit's applicable emission limitation for each year of the plan, is 0.45 lb/MMBtu from 40 CFR 76.5(a)(1) for tangentially fired boilers.</p> <p>In addition to the described NOx compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NOx compliance plan and the requirements covering excess emissions.</p>

¹ Based on the Phase II NOx Compliance Plan, EPA Form 7610-28 (12-03), dated October 6, 2009.

B.3. Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator. [40 CFR 70.6(a)(1)(ii); and Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

B.4. Comments, Notes, and Justifications: None.

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

RECEIVED

OCT 17 2009



United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

BUREAU OF AIR POLLUTION CONTROL

Phase II NO_x Compliance Plan Page 1 of 2

For more information, see Instructions and refer to 40 CFR 76.9

This submission is: New Revised

STEP 1
Indicate plant name, State, and ORIS code from NADB, if applicable

Big Bend Station	FL	645
Plant Name	State	ORIS Code

STEP 2

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

BB01	BB02	BB03	BB04		
ID#	ID#	ID#	ID#	ID#	ID#
WB	WB	WB	T		
Type	Type	Type	Type	Type	Type

(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Standard annual average emission limitation of 0.66 lb/mmBtu (for cell burner boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(j) NO _x Averaging Plan (Include NO _x Averaging form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO _x Averaging (check the NO _x Averaging Plan box and include NO _x Averaging form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EPA Form 7610-28 (12-03)

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

Big Bend Station
Plant Name (from Step 1)

NO_x Compliance - Page 2
Page 2 of 2

STEP 2, cont'd.

BB01 ID# WB Type	BB02 ID# WB Type	BB03 ID# WB Type	BB04 ID# T Type		
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(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(ii)(B), or (b)(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(n) AEL (Include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(p) Repowering extension plan approved or under review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign &

Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(ii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Paul L. Carpinone	
Name	
Signature <i>Paul L. Carpinone</i>	October 6, 2009
	Date

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions



Acid Rain Program Instructions for Phase II NO_x Compliance Plan (40 CFR 76.9)

The U.S. Environmental Protection Agency has promulgated regulations designed to substantially reduce the annual emissions of nitrogen oxides (NO_x) from coal-fired electric utilities. The NO_x Emission Reduction regulations are found at 40 CFR part 76 and apply to each existing coal-fired utility unit that is subject to sulfur dioxide (SO₂) emission reduction requirements under Sections 404, 405, or 409 of the Clean Air Act. Under 40 CFR 76.9, the owner or operator of each affected unit subject to 40 CFR part 76 must include a compliance plan for NO_x emissions in the Acid Rain permit application for that unit. The designated representatives (DRs) of Phase I and Phase II NO_x-affected units with Group 1 or Group 2 boilers must submit an initial Phase II NO_x compliance plan to the appropriate title V air permitting authority (in most cases, the State or local air permitting authority) not later than **January 1, 1998**. A Group 1 boiler is a tangentially fired boiler or a dry bottom wall-fired boiler. A Group 2 boiler is a cell burner boiler, cyclone boiler, vertically fired boiler, or a wet bottom boiler. Once the title V permitting authority receives the Phase II NO_x compliance plans, it will in turn review them and incorporate approved plans into the Phase II Acid Rain permits issued by the permitting authority to Phase II affected sources.

General Instructions

- (1) Please type or print in black ink.
 - (2) NADB is the National Allowance Data Base for the Acid Rain Program. To obtain the database on diskette, call the Acid Rain Hotline at (202) 343-9620. This data file is in dBase format for use on an IBM-compatible PC. It requires 2 megabytes of hard drive memory. If the unit is not listed in NADB, use the plant name, ORIS code, and boiler ID#(s) listed on the Certificate of Representation for the affected source.
 - (3) If more space is needed, photocopy the pertinent page. When you have completed the form, indicate the page order and total number of pages (e.g., 1 of 4, 2 of 4, etc.) in the boxes in the upper right hand corner of each page.
 - (4) Submit one complete set of all forms with original signatures to:
 - (a) The appropriate title V permitting authority (for NO_x Averaging Plans, a copy of the plan must be submitted to any other title V permitting authority with jurisdiction over any of the units in the plan).
- and**
- One copy to:
- (b) U.S. Environmental Protection Agency
Clean Air Markets Division (6204J)
Attn: Phase II NO_x
1200 Pennsylvania Ave., NW
Washington, DC 20460
- (5) For assistance, call the Acid Rain Hotline at (202) 343-9620.

NO_x Compliance Options

STEP 2

General

Indicate a proposed method of compliance with the NO_x emissions requirements for each unit at the source affected for NO_x during Phase II. A Phase II NO_x compliance plan must account for each year the Phase II acid rain permit will be effective. Further, a NO_x compliance plan is in effect only through the term of the acid rain permit covering the NO_x-affected units. **A new NO_x compliance plan must be submitted when an acid rain permit renewal application is due.**

NO_x-affected Units

To determine if an affected unit subject to Acid Rain SO₂ requirements is also subject to NO_x emission limitations, see 40 CFR 76.1, the definitions at 40 CFR 76.2, and the emission limitations at 40 CFR 76.5, 76.6, and 76.7. Most existing coal-fired units that are subject to Acid Rain SO₂ requirements and that have a Group 1 or Group 2 boiler are also subject to the NO_x emission limitations under 40 CFR part 76.

SECTION IV. ACID RAIN PART.

Federal Acid Rain Provisions

2

Phase I Group 1 Boilers

Compliance options (a) and (b) are standard annual emission limitations, one of which may be selected for a Phase I Group 1 boiler. The limits also apply to Phase II Group 1 boilers that are covered by an early election plan previously approved by U.S. EPA.

Early Election

Compliance option (c), NO_x early election, is available only to Phase II Group 1 boilers with early election plans submitted by January 1, 1997 and approved by U.S. EPA. All such plans terminate no later than December 31, 2007. DRs with NO_x early election units must select option (c) and either (a) or (b), the Phase I Group 1 standard emissions limit specified for the unit in the plan. If the termination date of the plan will be prior to the expiration date of the acid rain permit covering an early election unit, the DR must indicate an additional NO_x compliance option that will apply to the unit beginning when the plan terminates through the date by which the acid rain permit will expire. In such cases the DR must mark option (c) and either (a) or (b), as well as the additional box(es) denoting the additional, follow-on NO_x compliance option. For early election units in a common stack, see also the instructions under Common Stacks.

Phase II Group 1 Boilers

Compliance options (d) and (e) denote standard annual emission limitations, one of which may be selected for a Phase II Group 1 boiler.

Phase II Group 2 Boilers

Compliance options (f) through (i) denote standard annual emission limitations, one of which may be selected for a Phase II Group 2 boiler.

NO_x Averaging

Compliance option (j) denotes the annual emission limitation under a NO_x averaging plan, which may be selected in lieu of a standard annual emission limit for Group 1 or Group 2 boilers with the same owner or operator and the same DR. See instructions below and include Phase II NO_x averaging form.

Common Stacks

A unit that utilizes a common stack and is separately monitored for NO_x (i.e., has its own NO_x monitor and diluent monitor) is treated as the same as a unit that emits only through its own separate stack.

A unit (other than an early election unit) that utilizes a common stack and is not monitored separately must select one of the applicable common stack options. If the unit shares a common stack with other affected units and no non-affected units and if each of the units has a NO_x emission limitation, three options are available: comply with the most stringent NO_x emission limitation applicable

to any unit utilizing the common stack (option (k)); include the units in a NO_x averaging plan (option (j)); or use an approved method for apportioning the combined NO_x emission rate in the common stack (option (m)). If the unit shares a common stack with at least one other unit that does not have a NO_x emission limitation or with at least one non-affected unit, you must use an approved method for apportioning the combined NO_x emission rate (option (m)), unless, of course, the unit is separately monitored. An early election unit that utilizes a common stack, that is not monitored separately, and whose early election plan specifies option (k) or (m) for the unit, must select such option.

If an apportionment option is chosen, check, in addition to option (m), the box at Step 2 that indicates the applicable emission limitation and submit to U.S. EPA the documentation supporting apportionment with the monitoring plan submission.

Alternative Emissions Limitations

Compliance option (n) must be selected by a Phase II Group 1 or Group 2 boiler that is applying for an AEL demonstration period, or final AEL, starting in Phase II. Compliance option (n) must also be chosen by a boiler that is renewing for Phase II a final AEL approved by U.S. EPA (see instructions accompanying Phase II AEL Demonstration Period, Final AEL Petition, and AEL Renewal forms and include appropriate form).

Compliance option (o) must be selected by a boiler that has applied to U.S. EPA for an AEL demonstration period or final AEL which is undergoing review by U.S. EPA. If a final AEL is subsequently approved by U.S. EPA, a revised Phase II NO_x compliance plan must be submitted marking option (o) and attaching an AEL Renewal form. If an AEL demonstration period or final AEL is subsequently disapproved by U.S. EPA, a revised Phase II NO_x compliance plan must be submitted indicating which Phase II NO_x compliance option will be used by the boiler.

Repowering Extension Plans

Compliance option (p) must be selected by a boiler that is covered by either an approved repowering extension plan or a plan that is undergoing review. If a repowering extension plan undergoing review is subsequently disapproved, a revised Phase II NO_x compliance plan must be submitted indicating which Phase II NO_x compliance option will be used by the boiler. If the termination date of either the repowering extension plan undergoing review or the approved plan is prior to the expiration date of the acid rain permit covering the repowered (or replacement) boiler under the plan, the DR must indicate an additional NO_x compliance option that will apply to the boiler beginning when the plan terminates through the date by which the acid rain permit will expire. In such cases the DR must mark option (p), as well as additional box(es) denoting the additional, follow-on NO_x compliance option.

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

3

NO_x Averaging Plan

Under 40 CFR 76.11 any affected units under control of the same owner or operator and with the same designated representative may average their NO_x emission rate, rather than each unit complying on an individual-unit basis with the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7. Units with no common owner or operator may not average their emissions. You may submit an averaging plan (or a revision to an approved averaging plan) with the appropriate title V permitting authority(s) at any time up to and including January 1 of the calendar year for which the averaging plan will become effective. If the plan is restricted to units located within a single permitting authority's jurisdiction, you may submit the plan at any time up to and including July 1 of the calendar year for which the plan will become effective.

STEP 1

Each unit identified for inclusion in the averaging plan in Phase II must be a Group 1 or Group 2 boiler subject to an emission limitation under 40 CFR 76.5, 76.6, or 76.7. Enter each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7 in column (a). If a unit with an alternative emission limitation demonstration period or a final alternative emission limitation under 40 CFR 76.10 participates in an averaging plan, enter the applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7, not the interim or alternative limit, in column (a).

For units utilizing a common stack that are averaging pursuant to 40 CFR 75.17(a)(2)(i)(B), the same alternative contemporaneous emission limitation must be entered in column (b) for each unit utilizing the common stack. Different annual heat input limits may be entered for these units in column (c). Units not utilizing the common stack may also be included in the averaging plan with the common stack units.

The annual heat input limit entered at column (c) will be a minimum limit if the value in column (b) is less than the value in column (a) for that unit. It will be a maximum limit if the value in column (b) is greater than the value in column (a). The values entered for each unit at columns (b) and (c) must satisfy the formula at Step 2.

STEP 2

The entries in Step 2 must demonstrate that the Btu-weighted annual emission rate averaged over the units in the plan is less than or equal to the Btu-weighted annual average emission rate for the same units if they are each operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7. Use the equation that appears in Step 2 to demonstrate that the alternative contemporaneous annual emission limitations and annual heat input values assigned to the units in Step 1 satisfy this criterion. For units with an interim emission limitation or an alternative emission limitation, the applicable emission limitation for the equation shall equal the applicable emissions limitation under 40 CFR 76.5, 76.6, or 76.7.

STEP 3

The second option is included to avoid the need to submit identical plans each for a different year if you want each plan to be effective for only one year.

Paperwork Burden Estimate

The burden on the public for collecting and reporting of information under this request is fixed per response indicated. Send comments regarding this collection of information, including suggestions for reducing the burden, to: Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, D.C. 20460; and to: Paperwork Reduction Project (OMB#2060-0258), Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. **Do not send your forms to these addresses; see paragraph (4) of the General Instructions on Page 1 for form submission information.**

<u>FORM</u>	<u>HOURS</u>
NO _x Compliance Plan	10
NO _x Averaging Plan	200

SECTION V. CAIR PART.
CLEAN AIR INTERSTATE RULE PROVISIONS

Clean Air Interstate Rule (CAIR).

Operated by: Tampa Electric Company
Plant Name: Big Bend Station
ORIS Code: 0645

Subsection A. This Subsection addresses CAIR.

The emissions units below are regulated under the Clean Air Interstate Rule.

E.U. ID No.	EPA Unit ID#	Brief Description
-001	BB01	Unit No. 1 Steam Generator
-002	BB02	Unit No. 2 Steam Generator
-003	BB03	Unit No. 3 Steam Generator
-004	BB04	Unit No. 4 Steam Generator

1. Clean Air Interstate Rule Application. The Clean Air Interstate Rule Part Form submitted for this facility is a part of this permit. The owners and operators of these CAIR units as identified in this form must comply with the standard requirements and special provisions set forth in the CAIR Part Form (DEP Form No. 62-210.900(1)(b) - Form, Effective: 3/16/08), which is attached at the end of this subsection. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]
2. Comments, notes, and justifications:
 - a. The "Unit ID#s" on the CAIR Part Form for the existing units were incorrect. The EPA unit identification numbers under the acid rain program for the existing units have already been established and are shown in the above table.
 - b. Applications for CAIR retired unit exemptions were submitted subsequent to this CAIR part application. As a result, this subsection now excludes the retired units.

SECTION V. CAIR PART
CLEAN AIR INTERSTATE RULE PROVISIONS

Clean Air Interstate Rule (CAIR) Part

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

This submission is: New Revised Renewal

STEP 1

Identify the source by plant name and ORIS or EIA plant code

Plant Name: Big Bend Power Station	State: Florida	ORIS or EIA Plant Code: 0645
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STEP 2

In column "a" enter the unit ID# for every CAIR unit at the CAIR source.

In columns "b," "c," and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).

For new units, enter the requested information in columns "e" and "f."

a	b	c	d	e	f
Unit ID#	Unit will hold nitrogen oxides (NO _x) allowances in accordance with 40 CFR 96.106(c)(1)	Unit will hold sulfur dioxide (SO ₂) allowances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO _x Ozone Season allowances in accordance with 40 CFR 96.306(c)(1)	New Units Expected Commence Commercial Operation Date	New Units Expected Monitor Certification Deadline
001	X	X	X		
002	X	X	X		
003	X	X	X		
004	X	X	X		
005	X		X		
006	X		X		

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SECTION V. CAIR PART
CLEAN AIR INTERSTATE RULE PROVISIONS

Big Bend Power Station

Plant Name (from STEP 1)

STEP 3

CAIR NO_x ANNUAL TRADING PROGRAM

**Read the
standard
requirements.**

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO_x source and each CAIR NO_x unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved].
- (2) The owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source and each CAIR NO_x unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO_x source with the following CAIR NO_x Emissions Requirements.

NO_x Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.
- (2) A CAIR NO_x unit shall be subject to the requirements under paragraph (1) of the NO_x Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Requirements, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (4) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.
- (5) A CAIR NO_x allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR NO_x allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x unit.

Excess Emissions Requirements.

If a CAIR NO_x source emits NO_x during any control period in excess of the CAIR NO_x emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
 - (i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO_x unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program.
 - (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program.
- (2) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

SECTION V. CAIR PART
CLEAN AIR INTERSTATE RULE PROVISIONS

Big Bend Power Station Plant Name (from STEP 1)
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**STEP 3,
Continued**

Liability.

- (1) Each CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program.
- (2) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x source or the CAIR designated representative of a CAIR NO_x source shall also apply to the owners and operators of such source and of the CAIR NO_x units at the source.
- (3) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x unit or the CAIR designated representative of a CAIR NO_x unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source or CAIR NO_x unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR SO₂ TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved].
- (2) The owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR SO₂ source and each SO₂ CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO₂ source with the following CAIR SO₂ Emission Requirements.

SO₂ Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO₂ allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
- (2) A CAIR SO₂ unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO₂ Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
- (5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR SO₂ allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO₂ unit.

Excess Emissions Requirements.

If a CAIR SO₂ source emits SO₂ during any control period in excess of the CAIR SO₂ emissions limitation, then:

- (1) The owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

SECTION V. CAIR PART
CLEAN AIR INTERSTATE RULE PROVISIONS

Big Bend Power Station
Plant Name (from STEP 1)

**STEP 3,
Continued**

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.
 - (i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO₂ unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO₂ Trading Program
 - (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR SO₂ Trading Program.
- (2) The CAIR designated representative of a CAIR SO₂ source and each CAIR SO₂ unit at the source shall submit the reports required under the CAIR SO₂ Trading Program, including those under 40 CFR Part 96, Subpart HHH

Liability.

- (1) Each CAIR SO₂ source and each CAIR SO₂ unit shall meet the requirements of the CAIR SO₂ Trading Program.
- (2) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ source or the CAIR designated representative of a CAIR SO₂ source shall also apply to the owners and operators of such source and of the CAIR SO₂ units at the source
- (3) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ unit or the CAIR designated representative of a CAIR SO₂ unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO₂ Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO₂ source or CAIR SO₂ unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR NO_x OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved];
- (2) The owners and operators of each CAIR NO_x Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO_x Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO_x Ozone Season source with the following CAIR NO_x Ozone Season Emissions Requirements.

NO_x Ozone Season Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.
- (2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1),(2), or (3) and for each control period thereafter.
- (3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.
- (4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.
- (5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR NO_x Ozone Season allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x Ozone Season unit.

**SECTION V. CAIR PART
CLEAN AIR INTERSTATE RULE PROVISIONS**

Big Bend Power Station
Plant Name (from STEP 1)

**STEP 3,
Continued**

Excess Emissions Requirements.

If a CAIR NO_x Ozone Season source emits NO_x during any control period in excess of the CAIR NO_x Ozone Season emissions limitation, then:
 (1) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
 (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
 (i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative
 (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Ozone Season Trading Program
 (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Ozone Season Trading Program.
 (2) The CAIR designated representative of a CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall submit the reports required under the CAIR NO_x Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

(1) Each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit shall meet the requirements of the CAIR NO_x Ozone Season Trading Program.
 (2) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season source or the CAIR designated representative of a CAIR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_x Ozone Season units at the source.
 (3) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season unit or the CAIR designated representative of a CAIR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x Ozone Season source or CAIR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

STEP 4

Certification (for designated representative or alternate designated representative only)

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Paul L. Carpinone Name	Acid Rain Designated Representative Title
Tampa Electric Company Company Owner Name	
813-228-4858 Phone	plcarpinone@tecoenergy.com E-mail Address
Signature <i>Paul L. Carpinone</i>	Date <i>4-22-08</i>

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

Subsection B. This Subsection addresses CAIR Retired Unit Exemptions.

E.U. ID No.	EPA Unit ID#	Brief Description
-005	TBE	Combustion Turbine No. 2
-006	TBE	Combustion Turbine No. 3

“TBE” - to be established

The CT Nos. 2 & 3 (E.U. ID Nos. -005 & -006), were removed from the site on December 22, 2008. **The date of permanent retirement was September 30, 2008.**

{Permitting note(s): CT Nos. 2 & 3 (E.U. ID Nos. -005 & -006) are regulated under Rules 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR) as retired CAIR units. These emissions units were not regulated under 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines.}

1. Clean Air Interstate Rule Retired Unit Exemption Applications. The Clean Air Interstate Rule Retired Unit Exemption Part Forms submitted for this facility are a part of this permit. The owners and operators of these CAIR retired units as identified in these forms must comply with the standard requirements and special provisions set forth in the CAIR Retired Unit Exemption Part Forms (EPA Form No. 7610-20 (Rev. 11-2007), which are attached at the end of this subsection. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]
2. Comments, notes, and justifications: The “Unit ID#s” on the forms are the state of Florida’s ARMS E.U. ID Nos. The EPA “Unit ID#s” are to be established.

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

United States Environmental Protection Agency
Acid Rain, CAIR, and CAMR Programs

OMB Nos. 2060-0258, 2060-0567,
2060-0570, and 2060-0584
Approval Expires 7/31/2009



Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 96.105, 96.205, 96.305, and 60.4105, or a comparable state regulation, as applicable.

This submission is: New Revised

STEP 1

Identify the unit by facility (source) name, State, ORIS/plant code and unit ID#.

Big Bend Power Station	FL	0645	005
Facility (Source) Name	State	ORIS/Plant Code	Unit ID#

STEP 2

Indicate the program(s) that the unit is subject to:

- ~ CAIR NO_x Annual
- ~ CAIR SO₂
- ~ CAIR NO_x Ozone Season

STEP 3

Identify the date on which the unit was (or will be) permanently retired.

9/30/2008

STEP 4

If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2009

RECEIVED

OCT 08 2008

BUREAU OF AIR REGULATION

STEP 5

Read the appropriate special provisions.

Acid Rain Program Special Provisions

- (1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
- (2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
- (5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Rev. 11-2007)

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

Big Bend Power Station Plant Name (from STEP 1)
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Retired Unit Exemption
Page 2

CAIR NO_x Annual Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.105(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate CAIR NO_x allowances under 40 CFR 96 subpart EE to a unit exempt under 40 CFR 96.105(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.105(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.105(a) shall comply with the requirements of the CAIR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 96.105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 96.105(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.105(b)(5);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.105(b)(5) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HH, a unit that loses its exemption under 40 CFR 96.105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

CAIR SO₂ Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.205(a) shall not emit any sulfur dioxide, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.205(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.205(a) shall comply with the requirements of the CAIR SO₂ Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 96.205(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.222 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
- (5) On the earlier of the following dates, a unit exempt under 40 CFR 96.205(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.205(b)(4);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.205(b)(4) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (6) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHH, a unit that loses its exemption under 40 CFR 96.205(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Rev. 11-2007)

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

Big Bend Power Station Plant Name (from STEP 1)
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Retired Unit Exemption
Page 3

CAIR NO_x Ozone Season Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.305(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate CAIR NO_x Ozone Season allowances under 40 CFR 96 subpart EEEE to a unit exempt under 40 CFR 96.305(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.305(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.305(a) shall comply with the requirements of the CAIR NO_x Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 96.305(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.322 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 96.305(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.305(b)(5);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.305(b)(5) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHHH, a unit that loses its exemption under 40 CFR 96.305(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

CAMR Hg Budget Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 60.4105(a) shall not emit any mercury, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate Hg allowances under 40 CFR 60.4140 through 60.4142 to a unit exempt under 40 CFR 60.4105(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 60.4105(a) shall retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the Hg designated representative of a unit exempt under 40 CFR 60.4105(a) shall comply with the requirements of the Hg Budget Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 60.4105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the Hg designated representative of the source submits a complete Hg Budget permit application under 40 CFR 60.4122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 60.4105(a) shall lose its exemption:
 - (i) The date on which the Hg designated representative submits a Hg Budget permit application for the unit under 40 CFR 60.4105(b)(5);
 - (ii) The date on which the Hg designated representative is required under 40 CFR 60.4105(b)(5) to submit a Hg Budget permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the Hg designated representative is not required to submit a Hg Budget permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 60.4170 through 60.4176, a unit that loses its exemption under 40 CFR 60.4105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Rev. 11-2007)

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

Big Bend Power Station Plant Name (from STEP 1)
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Retired Unit Exemption
Page 4

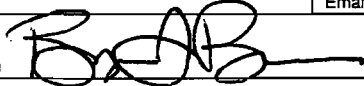
STEP 6
Read the statement of compliance and the appropriate certification statements and sign and date.

Statement of Compliance

I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5.

Certification (for Acid Rain, CAIR, or Hg designated representatives or alternate Acid Rain, CAIR, or Hg designated representatives only)

I am authorized to make this submission on behalf of the owners and operators of the source and unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Byron T. Burrows Name	Manager, Air Programs Title
Tampa Electric Company Owner Company Name	
(813) 228-1282 Phone	BTBurrows@TECOEnergy.com Email
 Signature	October 2, 2008 Date

Certification (for certifying officials of units subject to the Acid Rain Program only)

I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Byron T. Burrows Name	Manager, Air Programs Title
Tampa Electric Company Owner Company Name	
(813) 228-1282 Phone	BTBurrows@TECOEnergy.com Email
 Signature	October 2, 2008 Date

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

United States Environmental Protection Agency
Acid Rain, CAIR, and CAMR Programs

OMB Nos. 2060-0258, 2060-0567,
2060-0570, and 2060-0584
Approval Expires 7/31/2009



Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 96.105, 96.205, 96.305, and 60.4105, or a comparable state regulation, as applicable.

This submission is: New Revised

STEP 1
Identify the unit by facility (source) name, State, ORIS/plant code and unit ID#.

Big Bend Power Station	FL	0645	006
Facility (Source) Name	State	ORIS/Plant Code	Unit ID#

STEP 2
Indicate the program(s) that the unit is subject to:

- ~ CAIR NO_x Annual
- ~ CAIR SO₂
- ~ CAIR NO_x Ozone Season

STEP 3
Identify the date on which the unit was (or will be) permanently retired.

9/30/2008

REC ID
007 01 2008

BUREAU OF AIR POLLUTION

STEP 4
If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2009

STEP 5
Read the appropriate special provisions.

Acid Rain Program Special Provisions

- (1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
- (2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
- (5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Rev. 11-2007)

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

Big Bend Power Station
Plant Name (from STEP 1)

Retired Unit Exemption

Page 2

CAIR NO_x Annual Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.105(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate CAIR NO_x allowances under 40 CFR 96 subpart EE to a unit exempt under 40 CFR 96.105(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.105(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.105(a) shall comply with the requirements of the CAIR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 96.105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 96.105(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.105(b)(5);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.105(b)(5) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HH, a unit that loses its exemption under 40 CFR 96.105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

CAIR SO₂ Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.205(a) shall not emit any sulfur dioxide, starting on the date that the exemption takes effect.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.205(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.205(a) shall comply with the requirements of the CAIR SO₂ Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 96.205(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.222 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
- (5) On the earlier of the following dates, a unit exempt under 40 CFR 96.205(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.205(b)(4);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.205(b)(4) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (6) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHH, a unit that loses its exemption under 40 CFR 96.205(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Rev. 11-2007)

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

Big Bend Power Station Plant Name (from STEP 1)
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Retired Unit Exemption
Page 3

CAIR NO_x Ozone Season Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 96.305(a) shall not emit any nitrogen oxides, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate CAIR NO_x Ozone Season allowances under 40 CFR 96 subpart EEEE to a unit exempt under 40 CFR 96.305(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 96.305(a) shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.305(a) shall comply with the requirements of the CAIR NO_x Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 96.305(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR permit application under 40 CFR 96.322 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2009 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 96.305(a) shall lose its exemption:
 - (i) The date on which the CAIR designated representative submits a CAIR permit application for the unit under 40 CFR 96.305(b)(5);
 - (ii) The date on which the CAIR designated representative is required under 40 CFR 96.305(b)(5) to submit a CAIR permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 96 subpart HHHH, a unit that loses its exemption under 40 CFR 96.305(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

CAMR Hg Budget Trading Program Special Provisions

- (1) A unit exempt under 40 CFR 60.4105(a) shall not emit any mercury, starting on the date that the exemption takes effect.
- (2) The permitting authority will allocate Hg allowances under 40 CFR 60.4140 through 60.4142 to a unit exempt under 40 CFR 60.4105(a).
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 60.4105(a) shall retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the permitting authority or the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the Hg designated representative of a unit exempt under 40 CFR 60.4105(a) shall comply with the requirements of the Hg Budget Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 60.4105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the Hg designated representative of the source submits a complete Hg Budget permit application under 40 CFR 60.4122 for the unit not less than 18 months (or such lesser time provided by the permitting authority) before the later of January 1, 2010 or the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 60.4105(a) shall lose its exemption:
 - (i) The date on which the Hg designated representative submits a Hg Budget permit application for the unit under 40 CFR 60.4105(b)(5);
 - (ii) The date on which the Hg designated representative is required under 40 CFR 60.4105(b)(5) to submit a Hg Budget permit application for the unit; or
 - (iii) The date on which the unit resumes operation, if the Hg designated representative is not required to submit a Hg Budget permit application for the unit.
- (7) For the purpose of applying monitoring, reporting, and recordkeeping requirements under 40 CFR 60.4170 through 60.4176, a unit that loses its exemption under 40 CFR 60.4105(a) shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Rev. 11-2007)

SECTION V. CAIR PART.
Clean Air Interstate Rule Provisions

Big Bend Power Station Plant Name (from STEP 1)
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Retired Unit Exemption
Page 4

STEP 6

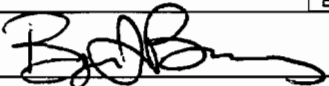
Read the statement of compliance and the appropriate certification statements and sign and date.

Statement of Compliance

I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5.

Certification (for Acid Rain, CAIR, or Hg designated representatives or alternate Acid Rain, CAIR, or Hg designated representatives only)

I am authorized to make this submission on behalf of the owners and operators of the source and unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Byron T. Burrows Name	Manager, Air Programs Title
Tampa Electric Company Owner Company Name	
(813) 228-1282 Phone	BTBurrows@TECOEnergy.com Email
 Signature	October 2, 2008 Date

Certification (for certifying officials of units subject to the Acid Rain Program only)

I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Byron T. Burrows Name	Manager, Air Programs Title
Tampa Electric Company Owner Company Name	
(813) 228-1282 Phone	BTBurrows@TECOEnergy.com Email
 Signature	October 2, 2008 Date

SECTION VI. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix BOP, Best Operational Practices for Start up and Shutdown.
Appendix CAM, Compliance Assurance Monitoring Plan.
Appendix CD, Consent Decree (U.S. EPA vs. TECO).
Appendix CEMS.
Appendix CEMS for EU 41 and 42.
Appendix CFJ, Consent Final Judgment (DEP vs. TECO).
Appendix CP-1 Compliance Plan.
Appendix 40 CFR 60, Subpart A, General Provisions.
Appendix 40 CFR 60, Subpart Da, Standards of Performance for Fossil-Fuel Fired Steam Generators.
Appendix 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
Appendix 40 CFR 60, Subpart KKKK, Requirements for Stationary Combustion Turbines
Appendix 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.
Appendix 40 CFR 63, Subpart A, General Provisions.
Appendix 40 CFR 63, Subpart II, National Emission Standards for Shipbuilding and Ship Repair (Surface Coating).
Appendix 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix O&M, Operation and Maintenance Plan under RACT for PM.
Appendix RR, Facility-wide Reporting Requirements.
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:

° F: degrees Fahrenheit	ISO: International Standards Organization (refers to those conditions at 288 Kelvin, 60% relative humidity and 101.3 kilopascals pressure.)
acfm: actual cubic feet per minute	kPa: kilopascals
AOR: Annual Operating Report	LAT: Latitude
ARMS: Air Resource Management System (Department's database)	lb: pound
BACT: best available control technology	lbs/hr: pounds per hour
Btu: British thermal units	LONG: Longitude
CAM: compliance assurance monitoring	MACT: maximum achievable technology
CEMS: continuous emissions monitoring system	mm: millimeter
cfm: cubic feet per minute	MMBtu: million British thermal units
CFR: Code of Federal Regulations	MSDS: material safety data sheets
CO: carbon monoxide	MW: megawatt
COMS: continuous opacity monitoring system	NESHAP: National Emissions Standards for Hazardous Air Pollutants
DARM: Division of Air Resources Management	NO_x: nitrogen oxides
DCA: Department of Community Affairs	NSPS: New Source Performance Standards
DEP: Department of Environmental Protection	O&M: operation and maintenance
Department: Department of Environmental Protection	O₂: oxygen
dscfm: dry standard cubic feet per minute	ORIS: Office of Regulatory Information Systems
EPA: Environmental Protection Agency	OS: Organic Solvent
ESP: electrostatic precipitator (control system for reducing particulate matter)	Pb: lead
EU: emissions unit	PM: particulate matter
F.A.C.: Florida Administrative Code	PM₁₀: particulate matter with a mean aerodynamic diameter of 10 microns or less
F.D.: forced draft	PSD: prevention of significant deterioration
F.S.: Florida Statutes	psi: pounds per square inch
FGR: flue gas recirculation	PTE: potential to emit
Fl: fluoride	RACT: reasonably available control technology
ft²: square feet	RATA: relative accuracy test audit
ft³: cubic feet	RMP: Risk Management Plan
gpm: gallons per minute	RO: Responsible Official
gr: grains	SAM: sulfuric acid mist
HAP: hazardous air pollutant	scf: standard cubic feet
Hg: mercury	scfm: standard cubic feet per minute
I.D.: induced draft	SIC: standard industrial classification code
ID: identification	

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

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

SOA: Specific Operating Agreement

SO₂: 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

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.

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

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

PROCEDURES FOR STARTUP AND SHUTDOWN

I. UNITS 1—4 BOILERS

Procedures for startup and shutdown of Units 1 through 4 are as follows:

A. STARTUP

1. Boilers are purged to expel all combustible gasses.
2. Ignitors are placed in service to establish an oil fire.
3. Once the air leaving the air preheater reaches 180°F, a centrally located fuel pulverizer is activated.
4. Solid fuel feeders and ignitors are rotated in and out of service to establish an even fire.
5. As soon as fuel fire is established, electrostatic precipitator rectifiers are added as needed to control PM emissions.
6. Following boiler stabilization at minimum load, the oil ignitors are removed and the electrostatic precipitator is placed in full service.
7. Excess emissions during startup are minimized by the following activities:
 - Opacity is continuously monitored.
 - Ignitor burner tips are checked on a regular basis to ensure the ignitors remain lit and have even oil flow.
 - An adequate supply of combustion air is maintained.
 - Combustion air is manually and continuously controlled to maintain even combustion.
 - Precipitators are placed in service prior to load stabilization.

B. SHUTDOWN

1. After the decision for boiler shutdown is made, load and steam header pressure are reduced.
2. Ignitors are placed in service as permissives for solid fuel feed removal.

PROCEDURES FOR STARTUP AND SHUTDOWN

3. Steam turbine is "punched out" when all fuel feeders are out of service and load and steam header pressure are approximately 5 MW and 500 lbs, respectively.
4. Exhaust fans are used to expedite boiler cooling.
5. Excess emissions during shutdown are minimized by the following activities:
 - Opacity is continuously monitored.
 - Precipitators are removed from service only if precipitator maintenance is required.
 - Air flow, dampers, etc., are manually adjusted.

II. UNITS 1-4 SCR SYSTEMS

Note: Units 3 and 4 are currently equipped with SCR control systems. SCR control systems will be installed on Units 1 and 2 in 2010 and 2009, respectively.

A. STARTUP

Operation of the SCR control system begins with the injection of ammonia once the SCR catalyst reaches its minimum effective operating temperature of approximately 625°F.

B. SHUTDOWN

Once the SCR catalyst drops below its minimum effective operating temperature of approximately 625°F, ammonia injection ceases and the SCR control system is no longer in use.

III. UNITS 1-4 FGD SYSTEMS

A. STARTUP

Startup of the FGD systems begin with starting up the makeup water system to provide water to the pump seals and the tower demister spray headers. The next system placed in service is the limestone reagent feed system, which supplies limestone slurry to the towers for sulfur dioxide (SO₂) removal. Once oil fired is established in the boilers, the tower absorber and quencher pumps are placed in service. The absorber towers for Units 1 - 4 are placed in service after oil fire and prior to solid fuel fire. Units 1 - 4 shall be considered to have all emissions from these units treated in the scrubbers when the booster fans associated with the units are operating. The gypsum handling system is

PROCEDURES FOR STARTUP AND SHUTDOWN

started when the gypsum slurry tanks level increases due the production of gypsum in the towers from the interaction of SO₂ and calcium carbonate (limestone).

B. SHUTDOWN

Shutdown of the FGD systems is less complicated than startup and begins with the removal of unneeded tower(s) as load decreases. When units are off-line, all towers can be removed from service and the makeup water, limestone reagent feed system, and gypsum handling systems are shutdown.

APPENDIX CAM
CAM REQUIREMENTS
(version dated 06/09/2005)

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:
 - a. The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);
 - b. The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and
 - c. 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. - 14.**) and reporting exceedances or excursions (see **CAM Conditions 15. - 16.**). [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. - 16.**). [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 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

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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 8.b.**, 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:
 - (1) Improved preventive maintenance practices.
 - (2) Process operation changes.
 - (3) Appropriate improvements to control methods.
 - (4) Other steps appropriate to correct control performance.
 - (5) 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 8.b.**, 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)]

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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. Commencing from the effective date of this permit, 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:
 - (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (2) 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
 - (3) 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).
- 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

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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]

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The following emissions units are subject to the CAM provisions only for the pollutant indicated:

E.U. ID No.	Brief Description	Pollutant(s) subject to CAM
-001	Fossil Fuel Fired Steam Generator Unit No. 1	PM
-002	Fossil Fuel Fired Steam Generator Unit No. 2	PM
-003	Fossil Fuel Fired Steam Generator Unit No. 3	PM
-004	Fossil Fuel Fired Steam Generator Unit No. 4	PM

For ease of reference the following definitions are cited from 40 CFR 64.1 Definitions (10/03/1997):

Exceedance shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

Excursion shall mean a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

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Coal and petroleum coke-fired boilers
Particulate matter emissions from each boiler are controlled individually by dedicated electrostatic precipitators (ESPs)

Table 1. Monitoring Approach

	<u>Compliance Indicator</u>
I. Indicator	Opacity (visible emissions).
Measurement Approach	The use of a 40 CFR 75 certified continuous opacity monitoring system (COMS) and data acquisition handling system (DAHS).
II. Indicator Range	Maximum opacity. An excursion is defined as any 1-hour average of opacity greater than 15.0%*, excluding periods of start-up, shutdown and malfunction pursuant to Rule 62-210.700, F.A.C. An excursion will trigger an evaluation of the operation of the affected boiler and ESP. Corrective action will be taken as necessary. Any excursion will trigger recordkeeping and reporting requirements.
III. Performance Criteria	
A. Data Representativeness	The COMS locations meet the specifications of 40 CFR 75 and 40 CFR 60, Appendix B.
B. Verification of Operational Status	N/A
C. QA/QC Practices and Criteria	The COMS are operated and maintained in accordance with Appendix B to Part 75, Quality Assurance and Quality Control Procedures.
D. Monitoring Frequency	Opacity is monitored continuously.
E. Data Collection Procedures	Six-minute averages are recorded through the automated data acquisition handling system (DAHS). Daily reports with all six-minute and hourly averages shall be generated. One-hour averages are determined every six minutes from the average of the previous ten consecutive six-minute averages.
F. Averaging Period	The averaging period for opacity observations is a 6-minute block average.

* The excursion level specified in this CAM Plan was established based upon the most recent 5 years of test data provided by the applicant. The excursion level shall be re-evaluated at the time of renewal of Permit No. 0570039-039-AV based upon the new most recent 5 years of test data.

APPENDIX CD, CONSENT DECREE (UNITED STATES VS. TECO)

On February 29, 2000, the United States (U.S.) and Tampa Electric Company (TECO) entered into a settlement agreement (Consent Decree, Civil Action No. 99-2524, dated February 29, 2000). In May of 2001 (document dated October 23, 2000) and on June 12, 2009, this agreement was amended. Persons requesting copies of these public documents shall be provided one copy when requested or otherwise appropriate.

Electronic copies of these documents are available at the following EPA web site:

<http://www.epa.gov/compliance/resources/cases/civil/caa/teco.html>

{Note: Some of the signatures may have been redacted.}

APPENDIX CEMS.

UNIT NO. 4 CO EMISSION STANDARDS AND CO CEMS

1. Emission Standard for Carbon Monoxide (CO). CO emissions from Unit No. 4 shall not exceed 0.20 pounds per million Btu heat input (lb/mmBtu) on a 30-operating day rolling average as demonstrated by the required CO CEMS. [Rules 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]
2. CEMS Required for Demonstrating Compliance. The owner or operator shall properly calibrate, maintain and operate a continuous emissions monitoring system (CEMS) to measure and record emissions of CO in the units of parts per million (ppm) and convert the reading to lb/mmBtu. The owner or operator shall comply with the conditions of this appendix for the CO CEMS required to be installed by this permit as the compliance method for a SIP-based emission standard.
3. CEMS Required for Reporting Annual Emissions. The owner or operator shall use data from the CO CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rules 62-210.370(3) and 62-212.300(1)(e), F.A.C. The owner or operator shall follow the procedures in this appendix for calculating annual emissions.

CEMS OPERATION PLAN

4. CEMS Operation Plan. The owner or operator shall follow the CO CEMS Operation Plan submitted on January 23, 2008.

OPERATION AND QUALITY ASSURANCE

5. Operation. The owner or operator shall operate the CO CEMS required by this permit.
6. Span Values and Dual Range Monitors. The owner or operator shall set appropriate span values for the CO CEMS. The owner or operator shall operate and maintain the single range monitor in accordance with the CO CEMS Operation Plan.
7. Moisture Correction. If necessary, the owner or operator shall determine the moisture content of the exhaust gas and develop an algorithm to enable correction of the monitoring results to a dry basis (0% moisture).
8. Performance Specifications. The owner or operator shall evaluate the acceptability of the CO CEMS by conducting the appropriate performance specification, as follows. CEMS determined to be unacceptable shall not be considered installed for purposes of meeting the timelines of this permit. For CO monitors, the owner or operator shall conduct Performance Specification 4 or 4A of 40 CFR part 60, Appendix B.
9. Quality Assurance. The owner or operator shall follow the quality assurance procedures of 40 CFR Part 60, Appendix F. The required relative accuracy test audit (RATA) tests for the CO CEMS shall be performed using EPA Method 10 in Appendix A of 40 CFR part 60 and shall be based on a continuous sampling train.
10. Substituting RATA Tests for Compliance Tests. Data collected during CO CEMS quality assurance RATA tests can substitute for annual stack tests, and vice versa, at the option of the owner or operator, provided the owner or operator indicates this intent in the submitted test protocol and follows the procedures outlined in the CO CEMS Operation Plan.

CALCULATION APPROACH

11. CO CEMS Used for Compliance. Once adherence to the applicable performance specification for each CO CEMS is demonstrated, the owner or operator shall use the CO CEMS to demonstrate compliance with the applicable emission standards as specified by this permit.
12. CO CEMS Data. Each CO CEMS shall monitor and record emissions during all periods of operation and whenever emissions are being generated, including during episodes of startups, shutdowns, and malfunctions. All data shall be used, except for invalid measurements taken during monitor system breakdowns, repairs,

APPENDIX CEMS.

calibration checks, zero adjustments and span adjustments, and except for allowable data exclusions as per this appendix.

13. Operating Hours and Operating Days. For purposes of this appendix, the following definitions shall apply. An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight.
14. Operating Day. Unless otherwise specified by this permit, any day with at least one operating hour for an emissions unit is an operating day for that emission unit.
15. Valid Hourly Averages. The CO CEMS shall be designed and operated to sample, analyze and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.
 - a. Hours that are not operating hours are not valid hours.
 - b. For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, there is insufficient data, the 1-hour block average is not valid, and the hour is considered as "monitor unavailable."
16. Calculation Approaches. The owner or operator shall implement the calculation approach specified by this permit for the CO CEMS, as follows: For the 30-day rolling CO average, compliance shall be determined after each boiler operating day by calculating the arithmetic average of all the valid hourly averages from that operating day and the prior 29 operating days.

MONITOR AVAILABILITY

17. Monitor Availability. The quarterly excess emissions report shall identify monitor availability for each quarter in which the unit operated. Monitor availability for the CO CEMS shall be 95% or greater in any calendar quarter in which the unit operated for more than 760 hours. In the event the applicable availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving the required availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

EXCESS EMISSIONS

18. Definitions.
 - a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
 - b. *Shutdown* means the cessation of the operation of an emissions unit for any purpose.
 - c. *Malfunction* means any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
19. Excess Emissions Prohibited. Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
20. Data Exclusion Procedures for SIP Compliance. As per the procedures in this condition, limited amounts of CO CEMS emissions data may be excluded from the corresponding compliance demonstration, provided that best operational practices to minimize emissions are adhered to and the duration of data excluded is minimized. The data exclusion procedures of this condition apply only to SIP-based emission limits.
 - a. *Excess Emissions.* Data in excess of the applicable emission standard may be excluded from compliance calculations if the data are collected during periods of permitted excess emissions (for example, during

APPENDIX CEMS.

startup, shutdown or malfunction). The maximum duration of excluded data is 2 hours in any 24-hour period, unless some other duration is specified by this permit.

b. *Limited Data Exclusion.* If the compliance calculation using all valid CO CEMS emission data, as defined in Condition 13 of this appendix, indicates that the emission unit is in compliance, then no CEMS data shall be excluded from the compliance demonstration.

c. *Event Driven Exclusion.* The underlying event (for example, the startup, shutdown or malfunction event) must precede the data exclusion. If there is no underlying event, then no data may be excluded. Only data collected during the event may be excluded.

d. *Reporting Excluded Data.* The data exclusion procedures of this condition are not necessarily the same procedures used for excess emissions as defined by federal rules. Quarterly or semi-annual reports required by this permit shall indicate not only the duration of data excluded from SIP compliance calculations but also the number of excess emissions as defined by federal rules.

21. Notification Requirements. The owner or operator shall notify the Compliance Authority within one working day of discovering any emissions that demonstrate noncompliance for a given averaging period. Within one working day of discovery of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CO CEMS data. For malfunctions, notification is sufficient for the owner or operator to exclude CO CEMS data.

ANNUAL EMISSIONS

22. CO CEMS Used for Calculating Annual Emissions. All valid data, as defined in this appendix, shall be used when calculating annual emissions.
- Annual emissions shall include data collected during startup, shutdown and malfunction periods.
 - Annual emissions shall include data collected during periods when the emission unit is not operating but emissions are being generated (for example, when firing fuel to warm up a process for some period of time prior to the emission unit's startup).
 - Annual emissions shall not include data from periods of time where the monitor was functioning properly but was unable to collect data while conducting a mandated quality assurance/quality control activity such as calibration error tests, RATA, calibration gas audit or RAA. These periods of time shall be considered missing data for purposes of calculating annual emissions.
 - Annual emissions shall not include data from periods of time when emissions are in excess of the calibrated span of the CO CEMS. These periods of time shall be considered missing data for purposes of calculating annual emissions.
23. Accounting for Missing Data. All valid measurements collected during each hour shall be used to calculate a 1-hour block average. For each hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, the owner or operator shall account for emissions during that hour using site-specific data to generate a reasonable estimate of the 1-hour block average.
24. Emissions Calculation. Hourly emissions shall be calculated for each hour as the product of the 1-hour block average and the duration of pollutant emissions during that hour. Annual emissions shall be calculated as the sum of all hourly emissions occurring during the year.

[PSD-FL-390/Permit No. 0570039-027 (amended by PSD-FL-390A/Permit No. 0570039-042-AC).]

APPENDIX CEMS FOR EU 41 AND 42
STANDARD CONTINUOUS MONITORING REQUIREMENTS

The new SCCT peaking units SCCT 4A and SCCT 4B (EU-041 and 042, respectively) are subject to the following requirements for the new continuous emissions monitoring systems (CEMS) required for CO and NO_x emissions and CO₂ for diluent.

CEMS OPERATION PLAN

25. CEMS Operation Plan. The owner or operator shall follow the CO CEMS Operation Plan submitted on January 23, 2008.

MONITORS, PERFORMANCE SPECIFICATIONS AND QUALITY ASSURANCE

26. Span Values and Dual Range Monitors: The permittee shall set appropriate span values for the CEMS based on the emissions standards and range of operation. If necessary, the permittee shall install dual range monitors in accordance with the CEMS Operation Plan. [Rule 62-4.070(3), F.A.C.]
27. Diluent Monitor: If required by permit to correct the CEMS output to the oxygen concentrations specified in the applicable emissions standard, the permittee shall either install an oxygen monitor or install a CO₂ monitor and use an appropriate F-Factor computational approach. [Rule 62-4.070(3), F.A.C.]
28. Moisture Correction: If necessary, the permittee shall install a system to determine the moisture content of the exhaust gas and develop an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). [Rule 62-4.070(3), F.A.C.]
29. Continuous Flow Monitor: For compliance with mass emission flow rate standards, the permittee shall install a continuous flow monitor to determine the stack exhaust flow rate. The flow monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 6. Alternatively, the permittee may install a fuel flow monitor and use an appropriate F-Factor computational approach to calculate stack exhaust flow rate. *{Permitting Note: The CEMS Operation Plan will contain additional details and procedures for CEMS installation.}* [Rule 62-4.070(3), F.A.C.]
30. Performance Specifications: The permittee shall evaluate the “acceptability” of each CEMS by conducting the appropriate performance specification. CEMS determined to be “unacceptable” shall not be considered “installed” for purposes of meeting the timelines of this permit. For CO monitors, the permittee shall conduct Performance Specification 4 of 40 CFR 60, Appendix B. For NO_x monitors, the permittee shall conduct Performance Specification 2 of 40 CFR 60, Appendix B, or the applicable CEMS certification procedures of 40 CFR 75, Appendix A, Section 6. [Rule 62-4.070(3), F.A.C.; 40 CFR 60; and 40 CFR 75]
31. Quality Assurance: The permittee shall follow the quality assurance procedures of 40 CFR 60, Appendix F. For NO_x, the permittee may follow the applicable quality assurance requirements of 40 CFR 75, Appendix B. For CO, the required relative accuracy test audit (RATA) tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60. For NO_x, the RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. [Rule 62-4.070(3), F.A.C.; 40 CFR 60; and 40 CFR 75]

CALCULATION APPROACH FOR SIP COMPLIANCE

32. CEMS for Compliance: Once adherence to the applicable performance specification for each CEMS is demonstrated, the permittee shall use the CEMS to demonstrate compliance with the applicable emission standards as specified by this permit. [Rule 62-4.070(3), F.A.C.]
33. CEMS Data: Each CEMS shall monitor and record emissions during all operations and whenever emissions are being generated, including during episodes of startups, shutdowns, and malfunctions. Unless otherwise specified in this permit, all data shall be used, except for invalid measurements taken during monitor system breakdowns, repairs, calibration checks, zero adjustments, and span adjustments. If the CEMS measures concentration on a wet basis, the CEM system shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the owner or operator may develop through manual stack test measurements a curve of

APPENDIX CEMS FOR EU 41 AND 42
STANDARD CONTINUOUS MONITORING REQUIREMENTS

moisture contents in the exhaust gas versus load, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results of the CEMS shall be expressed as ppmvd corrected to 15% oxygen. The CEMS shall be used to demonstrate compliance with the CEMS emission standards for CO and NO_x as specified in this permit. For purposes of determining compliance with the CEMS emissions standards of this permit, missing (or excluded) data shall not be substituted. [Rule 62-4.070(3), F.A.C.]

34. **Operating Hours and Operating Days:** For purposes of this Appendix, the following definitions shall apply. An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight. Any day with at least one operating hour for an emissions unit is an operating day for that emission unit. [Rule 62-4.070(3), F.A.C.]
35. **Valid Hourly Averages:** Each CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement per minute. Each hourly average value shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.
- a. Hours that are not operating hours are not valid hours.
 - b. For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, there is insufficient data, the 1-hour block average is not valid, and the hour is considered as “monitor unavailable.”

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

36. **Calculation Approaches:** The permittee shall implement the calculation approach specified by this permit for each CEMS, as follows:
- c. *Daily Averages:*
 - d. *Rolling 30-day Average.*
 - e. *4-Hour Rolling Average (NO_x):* Compliance with the 4-hour rolling average shall be determined after each operating hour by calculating and recording the arithmetic average of all valid hourly averages for the previous 4 operating hours (compliance period).
 - f. *3-Hour Rolling Average (CO):* Compliance with the 3-hour rolling average shall be determined after each operating hour by calculating and recording the arithmetic average of all valid hourly averages for the previous 3 operating hours (compliance period).
 - g. *Rolling 12-month Totals:*

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

37. **Minimum Valid Hours:** At least one valid hourly average shall be used to calculate the emissions over any averaging period specified by this permit. One valid hourly average shall be sufficient to calculate the emissions over any averaging period. [Rule 62-4.070(3), F.A.C.]

MONITOR AVAILABILITY

38. **Monitor Availability:** Monitor availability shall be calculated on a quarterly basis for each emission unit as the number of valid hourly averages obtained by the CEMS, divided by the number of operating hours, times 100%. The monitor availability calculation shall not include periods of time where the monitor was functioning properly, but was unable to collect data while conducting a mandated quality assurance/quality control activity such as calibration error tests, RATA, calibration gas audit, or relative accuracy audits (RAA).

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Monitor availability for each CEMS shall be 95% or greater in any calendar quarter. Monitor availability shall be reported in the quarterly excess emissions report. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit. [Rule 62-4.070(3), F.A.C.]

EXCESS EMISSIONS

39. Definitions:

- h. *Excess Emissions* (under the Florida SIP) are defined as emissions of pollutants in excess of those allowed by any applicable air pollution rule of the Department, or by a permit issued pursuant to any such rule or Chapter 62-4, F.A.C. The term applies only to conditions which occur during startup, shutdown, or malfunction.
- i. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
- j. *Shutdown* means the cessation of the operation of an emissions unit for any purpose.
- k. *Malfunction* means any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

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

- 40. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rules 62-210.700(4), F.A.C.]
- 41. Data Exclusion Procedures for SIP Compliance: As per the procedures in this condition, limited amounts of CO and NO_x CEMS emissions data may be excluded from the corresponding compliance demonstration, provided that best operational practices to minimize emissions are adhered to and the duration of data excluded is minimized. As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions replace the provisions in Rule 62-210.700(1), F.A.C.
 - a. *Excess Emissions.* For purposes of SIP-based permit limits, excess emissions data collected during periods of startup and shutdown may be excluded from compliance calculations as allowed by the permit standards.
 - b. *Limiting Data Exclusion.* If the compliance calculation using all valid CEMS emission data (as defined in this Appendix) indicates that the emission unit is in compliance, then no CEMS data shall be excluded from the compliance demonstration.
 - c. *Event Driven Exclusion.* The excess emissions must occur due to an underlying event (startup or shutdown). If there is no underlying event, then no data may be excluded.
 - d. *Continuous Exclusion.* Data shall be excluded on a continuous basis per event. Data from discontinuous periods shall not be excluded for the same underlying event.
 - e. *Reporting Excluded Data.* These procedures for excluding SIP-based excess emissions from compliance calculations are not necessarily the same procedures used for “excess emissions” as defined by federal rules. Semiannual reports required by this permit shall indicate the duration of data excluded from SIP compliance calculations as well as the number of excess emissions as defined in the applicable federal rules.

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a

APPENDIX CEMS FOR EU 41 AND 42
STANDARD CONTINUOUS MONITORING REQUIREMENTS

NSPS or NESHAP provision. [Rule 62-210.700(4), F.A.C.]

42. **Notification Requirements:** The permittee shall notify the Compliance Authority within one working day of discovering any emissions that demonstrate non-compliance for a given averaging period. [Rule 62-4.070(3), F.A.C.]

CALCULATING AND REPORTING ANNUAL EMISSIONS

43. **CEMS for Calculating Annual Emissions:** As defined by this Appendix, all valid data shall be used when calculating annual emissions.
- a. Annual emissions shall include data collected during startup, shutdown, and malfunction periods.
 - b. Annual emissions shall include data collected during periods when the emission unit is not operating, but emissions are being generated (for example, firing fuel to warm up a process for some period of time prior to the emission unit's "official" startup).
 - c. Annual emissions shall not include data from periods of time where the monitor was functioning properly but was unable to collect data while conducting a mandated quality assurance/quality control activity such as calibration error tests, RATA, calibration gas audit, or RAA. These periods of time shall be considered "missing data" for purposes of calculating annual emissions.
 - d. Annual emissions shall not include data from periods of time when emissions are in excess of the calibrated span of the CEMS. These periods of time shall be considered "missing data" for purposes of calculating annual emissions.
44. **Accounting for Missing Data:** All valid measurements collected during each hour shall be used to calculate a 1-hour block average that begins at the top of each hour. For each hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, the permittee shall account for emissions during that hour using site-specific data to generate a reasonable estimate of the 1-hour block average.
45. **Emissions Calculation:** Annual emissions shall be calculated as the sum of all valid emissions occurring during the year.
46. **Reporting Annual Emissions:** The permittee shall use data from each required CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rules 62-210.370(3) and 62-212.300(1)(e), F.A.C. [Rule 62-4.070(3), F.A.C.]

APPENDIX CFJ, CONSENT FINAL JUDGMENT (DEP VS. TECO)

On December 16, 1999, the Florida Department of Environmental Protection (DEP) and the Tampa Electric Company (TECO) entered into a settlement agreement (Consent Final Judgment, Case No. 99-009737, dated December 6, 1999). This document is attached as part of this permit for completeness, but is distributed to the permittee only with the Final Permit. Other persons requesting copies of this document shall be provided one copy when requested or otherwise appropriate.

Big Bend Station Consent Decree Compliance Plan for Title V Renewal

1.0 Introduction

This compliance plan has been developed to represent Tampa Electric Company's (TEC) proposal of how compliance with the remaining portions of the Consent Decree (CD) Civil Action NO 99-2524-T-23F at Big Bend Station will be performed. The plan for compliance with the many conditions in the Consent Decree has already been determined and submitted to the EPA. The following plan is a summary review to be submitted to the Florida Department of Environmental Protection in conjunction with the Title V Permit # 0570039-039-AV Renewal for 2010.

2.0 Current Outstanding Consent Decree Provisions

- Section 32D - The schedule in Section 3.3 of the approved *Best Operating Practices Plan* is based upon current ESP inspections, SCR construction schedules, and future outage schedules. The schedule can be revised and the work may be performed earlier or later depending on such factors as ESP performance, equipment condition, outage duration, safety issues, specific unit operating parameters, and system demand.

Project	Unit 1	Unit 2	Unit 3	Unit 4
Wide plate spacing and rigid electrodes	2014	C	2012	N/A
Increased T/R sectionalization	N/A	C	2012	N/A

Where C = complete and N/A is not applicable.

All of these projects are expected to be completed no later than December 31, 2015.

- Section 32E - Replaced in the Second Amendment which was lodged with the court on February 28, 2008, and is still awaiting finalization. New Section 32E affords TEC the option to replace the PM CEM already installed at Big Bend. If opted, the replacement PM CEM (includes installation and certification) must be completed by December 31, 2010.
- Section 32G - Replaced in the Second Amendment which was lodged with the court on February 28, 2008, and is still awaiting finalization. The new Section 32G directs TEC to install and certify another PM CEM on a Big Bend stack, which must be completed within 18 months from the effective date of the Second Amendment.
- Section 37A - Replaced in the Second Amendment which was lodged with the court on February 28, 2008, and is still awaiting finalization. Section 37A states TEC must meet a 0.12 lb/MMBtu 30 day rolling average NOx limit for BB Units 1, 2, and 3.

- Section 37B - Replaced in the Second Amendment which was lodged with the court on February 28, 2008, and is still awaiting finalization. Section 37B states that the SCRs must meet the 30 day rolling average limit on or before June 1, 2008 (BB3), June 1, 2009 (BB2) and June 1, 2010 (BB1).
- Section 42 - On or before January 1, 2009, TEC must apply for an amendment to the Big Bend Title V permit to include all Consent Decree related work.

3.0 Planned Method of Compliance

- Section 32E – TEC is currently investigating the feasibility of the second PM CEM according to the criteria set forth in the Second Amendment to the Consent Decree Section 32G.
- Section 32G – The Second PM CEM instrument has been installed on the Big Bend Unit 4 stack, BB04, the certification for the second PM CEM at Big Bend Power Station is planned for June of 2009.
- Section 37A & Section 37B – Currently Units 2 & 3 have had SCR's installed and proven compliance below the 0.12 lb/MMBtu 30 day rolling average NOx limit. Big Bend Unit 1 is entering into the planned outage to complete the SCR installation in Quarter 4 of 2009. Unit 1 will meet compliance with the 30 day rolling average on or before June 1st, 2010.
- Section 42 - TEC completed and submitted the Big Bend Title V Renewal application on June 6, 2008, to include all Consent Decree related work.

4.0 Compliance Reporting

TEC currently submits the Quarterly Consent Decree Report to all parties of interest on the 30th day following the quarter. All activities, projects, and data for compliance are included in the Quarterly Consent Decree Report. In combination with the Quarterly Consent Decree Report TEC uses continuous emissions monitoring (CEM) and records all practical data for compliance purposes.

APPENDIX 40 CFR 60 SUBPART A

GENERAL PROVISIONS - NEW SOURCE PERFORMANCE STANDARDS (NSPS)
(version dated 10/9/2008)

E.U. ID No.	Brief Description
-004	Unit No. 4 Steam Generator
-020	Drops from limestone handling conveyors LE, LF, and LG and silo C belt feeder with baghouse
-021	Limestone silo C with one baghouse
-043	Diesel Emergency Black Start Generator, 800 kW
-044	Coal Field Diesel Generator

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: June 13, 2007

Rule Effective Date: October 1, 2007

Standardized Conditions Revision Date: October 9, 2008

40 CFR Part 60, Subpart A - General Provisions

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- 40 CFR 60.2 **Definitions.**
- 40 CFR 60.3 **Units and abbreviations.**
- 40 CFR 60.4 **Address.**
- 40 CFR 60.5 **Determination of construction or modification.**
- 40 CFR 60.6 **Review of plans.**
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- 40 CFR 60.9 **Availability of information.**
- 40 CFR 60.10 **State authority.**
- 40 CFR 60.11 **Compliance with standards and maintenance requirements.**
- 40 CFR 60.12 **Circumvention.**
- 40 CFR 60.13 **Monitoring requirements.**
- 40 CFR 60.14 **Modification.**
- 40 CFR 60.15 **Reconstruction.**
- 40 CFR 60.16 **Priority list.**
- 40 CFR 60.17 **Incorporations by reference.**
- 40 CFR 60.18 **General control device requirements.**
- 40 CFR 60.19 **General notification and reporting requirements.**

End of Index

§ 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

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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}*

§ 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.

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.

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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.

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;

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- (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_x 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.

[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

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kg—kilogram

m—meter

 m^3 —cubic metermg—milligram— 10^{-3} grammm—millimeter— 10^{-3} meterMg—megagram— 10^6 gram

mol—mole

N—newton

ng—nanogram— 10^{-9} gramnm—nanometer— 10^{-9} meter

Pa—pascal

s—second

V—volt

W—watt

 Ω —ohm μg —microgram— 10^{-6} gram

(b) Other units of measure:

Btu—British thermal unit

 $^{\circ}\text{C}$ —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

 $^{\circ}\text{F}$ —degree Fahrenheit

ft—feet

gal—gallon

gr—grain

g-eq—gram equivalent

hr—hour

in—inch

k—1,000

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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
CO₂—carbon dioxide
HCl—hydrochloric acid
Hg—mercury
H₂O—water
H₂S—hydrogen sulfide
H₂SO₄—sulfuric acid
N₂—nitrogen
NO—nitric oxide
NO₂—nitrogen dioxide
NO_x—nitrogen oxides
O₂—oxygen
SO₂—sulfur dioxide
SO₃—sulfur trioxide
SO_x—sulfur oxides

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(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.

(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

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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.
 - (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.

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- (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.

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Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO₂/NO_x/TRS/H₂S/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 period¹ _____

Emission data summary ¹		CMS performance summary ¹	
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]	% ²	3. [Total CMS Downtime] × (100) [Total source operating time]	% ²

¹For opacity, record all times in minutes. For gases, record all times in hours.

²For 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.

Name

Signature

Title

Tampa Electric Company
Big Bend Station

Final Permit No. 0570039-045-AV
Title V Air Operation Permit Revision

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(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 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

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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 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.

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- (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

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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.

- (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]

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§ 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.

[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

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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.
 - (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.

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- (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)).
 - (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 O₂ 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

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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 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,

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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.
 - (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;

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- (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:
- (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

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- (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>

§ 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.

- (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)^{ε1}, 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.

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- (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.
- (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.

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- (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).
- (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).

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- (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 Iso-peribol 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.
- (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).

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- (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.
- (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).

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- (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.
- (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).

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- (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]

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 requirements.

- (a) *Introduction.* This section contains requirements for control devices used to comply with applicable subparts of parts 60 and 61. The requirements are placed here for administrative convenience and only apply to facilities covered by subparts referring to this section.
- (b) *Flares.* Paragraphs (c) through (f) apply to flares.
- (c)

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- (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:

$$V_{max} = (X_{H_2} - K_1) * K_2$$

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_{H_2} = 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).
- (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.

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- (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 off gas 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

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).

GENERAL PROVISIONS - NEW SOURCE PERFORMANCE STANDARDS (NSPS)
(version dated 10/9/2008)

[51 FR 2701, Jan. 21, 1986, as amended at 63 FR 24444, May 4, 1998; 65 FR 61752, Oct. 17, 2000]

§ 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 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.

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- (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]

APPENDIX 40 CFR 60 SUBPART Da

STANDARDS OF PERFORMANCE FOR ELECTRIC UTILITY STEAM GENERATING UNITS FOR WHICH
CONSTRUCTION IS COMMENCED AFTER SEPTEMBER 18, 1978
(version dated 10/16/2007)

E.U. ID No.	Brief Description
-004	Unit No. 4 Steam Generator

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: June 13, 2007

State Rule Effective Date: October 1, 2007

Standardized Conditions Revision Date: October 16, 2007

40 CFR Part 60, Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978

Source: 72 FR 32722, June 13, 2007, unless otherwise noted.

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- § 60.41Da Definitions.
- § 60.42Da Standard for particulate matter (PM).
- § 60.43Da Standard for sulfur dioxide (SO₂).
- § 60.44Da Standard for nitrogen oxides (NO_x).
- § 60.45Da Standard for mercury (Hg).
- § 60.46Da [Reserved]
- § 60.47Da Commercial demonstration permit.
- § 60.48Da Compliance provisions.
- § 60.49Da Emission monitoring.
- § 60.50Da Compliance determination procedures and methods.
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§ 60.40Da Applicability and designation of affected facility.

- (a) The affected facility to which this subpart applies is each electric utility steam generating unit:
 - (1) That is capable of combusting more than 73 megawatts (MW) (250 million British thermal units per hour (MMBtu/hr) heat input of fossil fuel (either alone or in combination with any other fuel); and
 - (2) For which construction, modification, or reconstruction is commenced after September 18, 1978.
- (b) Combined cycle gas turbines (both the stationary combustion turbine and any associated duct burners) are subject to this part and not subject to subpart GG or KKKK of this part if:
 - (1) The combined cycle gas turbine is capable of combusting more than 73 MW (250 MMBtu/hr) heat input of fossil fuel (either alone or in combination with any other fuel); and
 - (2) The combined cycle gas turbine is designed and intended to burn fuels containing 50 percent (by heat input) or more solid-derived fuel not meeting the definition of natural gas on a 12-month rolling average basis; and
 - (3) The combined cycle gas turbine commenced construction, modification, or reconstruction after February 28, 2005.
 - (4) This subpart will continue to apply to all other electric utility combined cycle gas turbines that are capable of combusting more than 73 MW (250 MMBtu/hr) heat input of fossil fuel in the heat recovery steam generator. If the heat recovery steam generator is subject to this subpart and the stationary combustion turbine is subject to either subpart GG or KKKK of this part, only emissions resulting from combustion of fuels in the steam-generating unit

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are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).

- (c) Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels, shall not bring that unit under the applicability of this subpart.
- (d) Any change to an existing steam generating unit originally designed to fire gaseous or liquid fossil fuels, to accommodate the use of any other fuel (fossil or nonfossil) shall not bring that unit under the applicability of this subpart.

§ 60.41Da 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.

Anthracite means coal that is classified as anthracite according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

Available purchase power means the lesser of the following:

- (a) The sum of available system capacity in all neighboring companies.
- (b) The sum of the rated capacities of the power interconnection devices between the principal company and all neighboring companies, minus the sum of the electric power load on these interconnections.
- (c) The rated capacity of the power transmission lines between the power interconnection devices and the electric generating units (the unit in the principal company that has the malfunctioning flue gas desulfurization system and the unit(s) in the neighboring company supplying replacement electrical power) less the electric power load on these transmission lines.

Available system capacity means the capacity determined by subtracting the system load and the system emergency reserves from the net system capacity.

Biomass means plant materials and animal waste.

Bituminous coal means coal that is classified as bituminous according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

Boiler operating day for units constructed, reconstructed, or modified on or before February 28, 2005, means a 24-hour period during which fossil fuel is combusted in a steam-generating unit for the entire 24 hours. For units constructed, reconstructed, or modified after February 28, 2005, *boiler operating day* means a 24-hour period between 12 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 the entire 24-hour period.

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) and coal refuse. Synthetic fuels derived from coal for the purpose 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 included in this definition for the purposes of this subpart.

Coal-fired electric utility steam generating unit means an electric utility steam generating unit that burns coal, coal refuse, or a synthetic gas derived from coal either exclusively, in any combination together, or in any combination with other fuels in any amount.

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

Cogeneration, also known as "combined heat and power," means a steam-generating unit that simultaneously produces both electric (or mechanical) and useful thermal energy from the same primary energy source.

Combined cycle gas turbine means a stationary turbine combustion system where heat from the turbine exhaust gases is recovered by a steam generating unit.

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Dry flue gas desulfurization technology or dry FGD means a sulfur dioxide control system that is located downstream of the steam generating unit and removes sulfur oxides (SO₂) 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 slurries or solutions used in dry FGD technology include, but are not limited to, lime and sodium.

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 heat recovery steam generating unit.

Electric utility combined cycle gas turbine means any combined cycle gas turbine used for electric generation that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW net-electrical output to any utility power distribution system for sale. Any steam distribution system that is constructed for the purpose of providing steam to a steam electric generator that would produce electrical power for sale is also considered in determining the electrical energy output capacity of the affected facility.

Electric utility company means the largest interconnected organization, business, or governmental entity that generates electric power for sale (e.g. , a holding company with operating subsidiary companies).

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 net-electrical output to any utility power distribution system for sale. Also, 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 considered in determining the electrical energy output capacity of the affected facility.

Electrostatic precipitator or ESP means an add-on air pollution control device used to capture particulate matter (PM) by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.

Emergency condition means that period of time when:

- (1) The electric generation output of an affected facility with a malfunctioning flue gas desulfurization system cannot be reduced or electrical output must be increased because:
 - (i) All available system capacity in the principal company interconnected with the affected facility is being operated, and
 - (ii) All available purchase power interconnected with the affected facility is being obtained, or
- (2) The electric generation demand is being shifted as quickly as possible from an affected facility with a malfunctioning flue gas desulfurization system to one or more electrical generating units held in reserve by the principal company or by a neighboring company, or
- (3) An affected facility with a malfunctioning flue gas desulfurization system becomes the only available unit to maintain a part or all of the principal company's system emergency reserves and the unit is operated in spinning reserve at the lowest practical electric generation load consistent with not causing significant physical damage to the unit. If the unit is operated at a higher load to meet load demand, an emergency condition would not exist unless the conditions under paragraph (1) of this definition apply.

Emission limitation means any emissions limit or operating limit.

Emission rate period means any calendar month included in a 12-month rolling average period.

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.

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such material for the purpose of creating useful heat.

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Gaseous fuel means any fuel derived from coal or petroleum that is present as a gas at standard conditions and includes, but is not limited to, refinery fuel gas, process gas, coke-oven gas, synthetic gas, and gasified coal.

Gross output means the gross useful work performed by the steam generated and, for an IGCC electric utility steam generating unit, the fuel burned in stationary combustion turbines. For a unit generating only electricity, the gross useful work performed is the gross electrical output from the unit's turbine/generator sets. For a cogeneration unit, the gross useful work performed is the gross electrical or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output (i.e., steam delivered to an industrial process).

24-hour period means the period of time between 12:01 a.m. and 12:00 midnight.

Integrated gasification combined cycle electric utility steam generating unit or IGCC electric utility steam generating unit means a coal-fired electric utility steam generating unit that burns a synthetic gas derived from coal in a combined-cycle gas turbine. No coal is directly burned in the unit during operation.

Interconnected means that two or more electric generating units are electrically tied together by a network of power transmission lines, and other power transmission equipment.

ISO conditions means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

Lignite means coal that is classified as lignite A or B according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

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) Liquid petroleum gas, as defined by the American Society of 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 standard cubic meter (910 and 1,150 Btu per standard cubic foot).

Neighboring company means any one of those electric utility companies with one or more electric power interconnections to the principal company and which have geographically adjoining service areas.

Net-electric output means the gross electric sales to the utility power distribution system minus purchased power on a calendar year basis.

Net system capacity means the sum of the net electric generating capability (not necessarily equal to rated capacity) of all electric generating equipment owned by an electric utility company (including steam generating units, internal combustion engines, gas turbines, nuclear units, hydroelectric units, and all other electric generating equipment) plus firm contractual purchases that are interconnected to the affected facility that has the malfunctioning flue gas desulfurization system. The electric generating capability of equipment under multiple ownership is prorated based on ownership unless the proportional entitlement to electric output is otherwise established by contractual arrangement.

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Petroleum means crude oil or petroleum or a fuel derived from crude oil or petroleum, including, but not limited to, distillate oil, residual oil, and petroleum coke.

Potential combustion concentration means the theoretical emissions (nanograms per joule (ng/J), lb/MMBtu heat input) that would result from combustion of a fuel in an uncleaned state without emission control systems) and:

- (1) For particulate matter (PM) is:
 - (i) 3,000 ng/J (7.0 lb/MMBtu) heat input for solid fuel; and

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- (ii) 73 ng/J (0.17 lb/MMBtu) heat input for liquid fuels.
- (2) For sulfur dioxide (SO₂) is determined under §60.50Da(c).
- (3) For nitrogen oxides (NO_x) is:
 - (i) 290 ng/J (0.67 lb/MMBtu) heat input for gaseous fuels;
 - (ii) 310 ng/J (0.72 lb/MMBtu) heat input for liquid fuels; and
 - (iii) 990 ng/J (2.30 lb/MMBtu) heat input for solid fuels.

Potential electrical output capacity means 33 percent of the maximum design heat input capacity of the steam generating unit, divided by 3,413 Btu/KWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 hr/yr (e.g. , a steam generating unit with a 100 MW (340 MMBtu/hr) fossil-fuel heat input capacity would have a 289,080 MWh 12 month potential electrical output capacity). For electric utility combined cycle gas turbines the potential electrical output capacity is determined on the basis of the fossil-fuel firing capacity of the steam generator exclusive of the heat input and electrical power contribution by the gas turbine.

Principal company means the electric utility company or companies which own the affected facility.

Resource recovery unit means a facility that combusts more than 75 percent non-fossil fuel on a quarterly (calendar) heat input basis.

Responsible official means responsible official as defined in 40 CFR 70.2.

Solid-derived fuel means any solid, liquid, or gaseous fuel derived from solid fuel for the purpose of creating useful heat and includes, but is not limited to, solvent refined coal, liquified coal, synthetic gas, gasified coal, gasified petroleum coke, gasified biomass, and gasified tire derived fuel.

Spare flue gas desulfurization system module means a separate system of SO₂ emission control equipment capable of treating an amount of flue gas equal to the total amount of flue gas generated by an affected facility when operated at maximum capacity divided by the total number of nonspare flue gas desulfurization modules in the system.

Spinning reserve means the sum of the unutilized net generating capability of all units of the electric utility company that are synchronized to the power distribution system and that are capable of immediately accepting additional load. The electric generating capability of equipment under multiple ownership is prorated based on ownership unless the proportional entitlement to electric output is otherwise established by contractual arrangement.

Steam generating unit means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with combined cycle gas turbines; nuclear steam generators are not included).

Subbituminous coal means coal that is classified as subbituminous A, B, or C according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

System emergency reserves means an amount of electric generating capacity equivalent to the rated capacity of the single largest electric generating unit in the electric utility company (including steam generating units, internal combustion engines, gas turbines, nuclear units, hydroelectric units, and all other electric generating equipment) which is interconnected with the affected facility that has the malfunctioning flue gas desulfurization system. The electric generating capability of equipment under multiple ownership is prorated based on ownership unless the proportional entitlement to electric output is otherwise established by contractual arrangement.

System load means the entire electric demand of an electric utility company's service area interconnected with the affected facility that has the malfunctioning flue gas desulfurization system plus firm contractual sales to other electric utility companies. Sales to other electric utility companies (e.g. , emergency power) not on a firm contractual basis may also be included in the system load when no available system capacity exists in the electric utility company to which the power is supplied for sale.

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Wet flue gas desulfurization technology or wet FGD means a SO₂ control system that is located downstream of the steam generating unit and 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 applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet FGD technology include, but are not limited to, lime, limestone, and sodium.

§ 60.42Da 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 subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility for which construction, reconstruction, or modification commenced before or on February 28, 2005, any gases that contain PM in excess of:
- (1) 13 ng/J (0.03 lb/MMBtu) heat input derived from the combustion of solid, liquid, or gaseous fuel;
 - (2) 1 percent of the potential combustion concentration (99 percent reduction) when combusting solid fuel; and
 - (3) 30 percent of potential combustion concentration (70 percent reduction) when combusting liquid fuel.
- (b) On and after the date the initial PM performance test is completed or required to be completed under §60.8, whichever date comes first, 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 exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.
- (c) Except as provided in paragraph (d) of this section, 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 after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of either:
- (1) 18 ng/J (0.14 lb/MWh) gross energy output; or
 - (2) 6.4 ng/J (0.015 lb/MMBtu) heat input derived from the combustion of solid, liquid, or gaseous fuel.
- (d) As an alternative to meeting the requirements of paragraph (c) of this section, the owner or operator of an affected facility for which construction, reconstruction, or 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 shall cause to be discharged into the atmosphere from that affected facility for which construction, reconstruction, or modification commenced after February 28, 2005, any gases that contain PM in excess of:
- (1) 13 ng/J (0.03 lb/MMBtu) heat input derived from the combustion of solid, liquid, or gaseous fuel, and
 - (2) 0.1 percent of the combustion concentration determined according to the procedure in §60.48Da(o)(5) (99.9 percent reduction) for an affected facility for which construction or reconstruction commenced after February 28, 2005 when combusting solid, liquid, or gaseous fuel, or
 - (3) 0.2 percent of the combustion concentration determined according to the procedure in §60.48Da(o)(5) (99.8 percent reduction) for an affected facility for which modification commenced after February 28, 2005 when combusting solid, liquid, or gaseous fuel.

§ 60.43Da Standard for sulfur dioxide (SO₂).

- (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 subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility which combusts solid fuel or solid-derived fuel and for which construction, reconstruction, or modification commenced before or on February 28, 2005, except as provided under paragraphs (c), (d), (f) or (h) of this section, any gases that contain SO₂ in excess of:
- (1) 520 ng/J (1.20 lb/MMBtu) heat input and 10 percent of the potential combustion concentration (90 percent reduction); or

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- (2) 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 260 ng/J (0.60 lb/MMBtu) heat input.
- (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 subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility which combusts liquid or gaseous fuels (except for liquid or gaseous fuels derived from solid fuels and as provided under paragraphs (e) or (h) of this section) and for which construction, reconstruction, or modification commenced before or on February 28, 2005, any gases that contain SO₂ in excess of:
- (1) 340 ng/J (0.80 lb/MMBtu) heat input and 10 percent of the potential combustion concentration (90 percent reduction); or
- (2) 100 percent of the potential combustion concentration (zero percent reduction) when emissions are less than 86 ng/J (0.20 lb/MMBtu) heat input.
- (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 subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility which combusts solid solvent refined coal (SRC-I) any gases that contain SO₂ in excess of 520 ng/J (1.20 lb/MMBtu) heat input and 15 percent of the potential combustion concentration (85 percent reduction) except as provided under paragraph (f) of this section; compliance with the emission limitation is determined on a 30-day rolling average basis and compliance with the percent reduction requirement is determined on a 24-hour basis.
- (d) Sulfur dioxide emissions are limited to 520 ng/J (1.20 lb/MMBtu) heat input from any affected facility which:
- (1) Combusts 100 percent anthracite;
- (2) Is classified as a resource recovery unit; or
- (3) Is located in a noncontinental area and combusts solid fuel or solid-derived fuel.
- (e) Sulfur dioxide emissions are limited to 340 ng/J (0.80 lb/MMBtu) heat input from any affected facility which is located in a noncontinental area and combusts liquid or gaseous fuels (excluding solid-derived fuels).
- (f) The emission reduction requirements under this section do not apply to any affected facility that is operated under an SO₂ commercial demonstration permit issued by the Administrator in accordance with the provisions of §60.47Da.
- (g) Compliance with the emission limitation and percent reduction requirements under this section are both determined on a 30-day rolling average basis except as provided under paragraph (c) of this section.
- (h) When different fuels are combusted simultaneously, the applicable standard is determined by proration using the following formula:

- (1) If emissions of SO₂ to the atmosphere are greater than 260 ng/J (0.60 lb/MMBtu) heat input

$$E_s = \frac{(340x + 520y)}{100} \quad \text{and} \quad \%P_s = 10$$

- (2) If emissions of SO₂ to the atmosphere are equal to or less than 260 ng/J (0.60 lb/MMBtu) heat input:

$$E_s = \frac{(340x + 520y)}{100} \quad \text{and} \quad \%P_s = \frac{(10x + 30y)}{100}$$

Where:

E_s = Prorated SO₂ emission limit (ng/J heat input);

$\%P_s$ = Percentage of potential SO₂ emission allowed;

x = Percentage of total heat input derived from the combustion of liquid or gaseous fuels (excluding solid-derived fuels); and

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y = Percentage of total heat input derived from the combustion of solid fuel (including solid-derived fuels).

- (i) Except as provided in paragraphs (j) and (k) of this section, 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 commenced after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility, any gases that contain SO₂ in excess of the applicable emission limitation specified in paragraphs (i)(1) through (3) of this section.
- (1) For an affected facility for which construction commenced after February 28, 2005, any gases that contain SO₂ in excess of either:
 - (i) 180 ng/J (1.4 lb/MWh) gross energy output on a 30-day rolling average basis; or
 - (ii) 5 percent of the potential combustion concentration (95 percent reduction) on a 30-day rolling average basis.
 - (2) For an affected facility for which reconstruction commenced after February 28, 2005, any gases that contain SO₂ in excess of either:
 - (i) 180 ng/J (1.4 lb/MWh) gross energy output on a 30-day rolling average basis;
 - (ii) 65 ng/J (0.15 lb/MMBtu) heat input on a 30-day rolling average basis; or
 - (iii) 5 percent of the potential combustion concentration (95 percent reduction) on a 30-day rolling average basis.
 - (3) For an affected facility for which modification commenced after February 28, 2005, any gases that contain SO₂ in excess of either:
 - (i) 180 ng/J (1.4 lb/MWh) gross energy output on a 30-day rolling average basis;
 - (ii) 65 ng/J (0.15 lb/MMBtu) heat input on a 30-day rolling average basis; or
 - (iii) 10 percent of the potential combustion concentration (90 percent reduction) on a 30-day rolling average basis.
- (j) 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 commenced after February 28, 2005, and that burns 75 percent or more (by heat input) coal refuse on a 12-month rolling average basis, shall be caused to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of the applicable emission limitation specified in paragraphs (j)(1) through (3) of this section.
- (1) For an affected facility for which construction commenced after February 28, 2005, any gases that contain SO₂ in excess of either:
 - (i) 180 ng/J (1.4 lb/MWh) gross energy output on a 30-day rolling average basis; or
 - (ii) 6 percent of the potential combustion concentration (94 percent reduction) on a 30-day rolling average basis.
 - (2) For an affected facility for which reconstruction commenced after February 28, 2005, any gases that contain SO₂ in excess of either:
 - (i) 180 ng/J (1.4 lb/MWh) gross energy output on a 30-day rolling average basis;
 - (ii) 65 ng/J (0.15 lb/MMBtu) heat input on a 30-day rolling average basis; or
 - (iii) 6 percent of the potential combustion concentration (94 percent reduction) on a 30-day rolling average basis.
 - (3) For an affected facility for which modification commenced after February 28, 2005, any gases that contain SO₂ in excess of either:
 - (i) 180 ng/J (1.4 lb/MWh) gross energy output on a 30-day rolling average basis;
 - (ii) 65 ng/J (0.15 lb/MMBtu) heat input on a 30-day rolling average basis; or
 - (iii) 10 percent of the potential combustion concentration (90 percent reduction) on a 30-day rolling average basis.

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- (k) 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 located in a noncontinental area that commenced construction, reconstruction, or modification commenced after February 28, 2005, shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of the applicable emission limitation specified in paragraphs (k)(1) and (2) of this section.
- (1) For an affected facility that burns solid or solid-derived fuel, the owner or operator shall not cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/MMBtu) heat input on a 30-day rolling average basis.
 - (2) For an affected facility that burns other than solid or solid-derived fuel, the owner or operator shall not cause to be discharged into the atmosphere any gases that contain SO₂ in excess of if the affected facility or 230 ng/J (0.54 lb/MMBtu) heat input on a 30-day rolling average basis.

§ 60.44Da Standard for nitrogen oxides (NO_x).

- (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 subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility, except as provided under paragraphs (b), (d), (e), and (f) of this section, any gases that contain NO_x (expressed as NO₂) in excess of the following emission limits, based on a 30-day rolling average basis, except as provided under §60.48Da(j)(1):
- (1) NO_x emission limits.

Fuel type	Emission limit for heat input	
	ng/J	lb/MMBtu
Gaseous fuels:		
Coal-derived fuels	210	0.50
All other fuels	86	0.20
Liquid fuels:		
Coal-derived fuels	210	0.50
Shale oil	210	0.50
All other fuels	130	0.30
Solid fuels:		
Coal-derived fuels	210	0.50
Any fuel containing more than 25%, by weight, coal refuse	(1)	(1)
Any fuel containing more than 25%, by weight, lignite if the lignite is mined in North Dakota, South Dakota, or Montana, and is combusted in a slag tap furnace ²	340	0.80
Any fuel containing more than 25%, by weight, lignite not subject to the 340 ng/J heat input emission limit ²	260	0.60
Subbituminous coal	210	0.50
Bituminous coal	260	0.60

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Anthracite coal	260	0.60
All other fuels	260	0.60

¹Exempt from NO_x standards and NO_x monitoring requirements.

²Any fuel containing less than 25%, by weight, lignite is not prorated but its percentage is added to the percentage of the predominant fuel.

(2) NO_x reduction requirement.

Fuel type	Percent reduction of potential combustion concentration
Gaseous fuels	25
Liquid fuels	30
Solid fuels	65

(b) The emission limitations under paragraph (a) of this section do not apply to any affected facility which is combusting coal-derived liquid fuel and is operating under a commercial demonstration permit issued by the Administrator in accordance with the provisions of §60.47Da.

(c) Except as provided under paragraphs (d), (e), and (f) of this section, when two or more fuels are combusted simultaneously, the applicable standard is determined by proration using the following formula:

$$E_n = \frac{(86w + 130x + 210y + 260z + 340v)}{100}$$

Where:

E_n = Applicable standard for NO_x when multiple fuels are combusted simultaneously (ng/J heat input);

w = Percentage of total heat input derived from the combustion of fuels subject to the 86 ng/J heat input standard;

x = Percentage of total heat input derived from the combustion of fuels subject to the 130 ng/J heat input standard;

y = Percentage of total heat input derived from the combustion of fuels subject to the 210 ng/J heat input standard;

z = Percentage of total heat input derived from the combustion of fuels subject to the 260 ng/J heat input standard; and

v = Percentage of total heat input delivered from the combustion of fuels subject to the 340 ng/J heat input standard.

(d)

(1) 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 after July 9, 1997, but before or on February 28, 2005 shall cause to be discharged into the atmosphere any gases that contain NO_x (expressed as NO₂) in excess of 200 ng/J (1.6 lb/MWh) gross energy output, based on a 30-day rolling average basis, except as provided under §60.48Da(k).

(2) 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 affected facility for which reconstruction commenced after July 9, 1997, but before or on February 28, 2005 shall cause to be discharged into the atmosphere any gases that contain NO_x (expressed as NO₂) in excess of 65 ng/J (0.15 lb/MMBtu) heat input, based on a 30-day rolling average basis.

(e) Except for an IGCC electric utility steam generating unit meeting the requirements of paragraph (f) of this section, on and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever

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date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_x (expressed as NO₂) in excess of the applicable emission limitation specified in paragraphs (e)(1) through (3) of this section.

- (1) For an affected facility for which construction commenced after February 28, 2005, the owner or operator shall not cause to be discharged into the atmosphere any gases that contain NO_x (expressed as NO₂) in excess of 130 ng/J (1.0 lb/MWh) gross energy output on a 30-day rolling average basis, except as provided under §60.48Da(k).
 - (2) For an affected facility for which reconstruction commenced after February 28, 2005, the owner or operator shall not cause to be discharged into the atmosphere any gases that contain NO_x (expressed as NO₂) in excess of either:
 - (i) 130 ng/J (1.0 lb/MWh) gross energy output on a 30-day rolling average basis; or
 - (ii) 47 ng/J (0.11 lb/MMBtu) heat input on a 30-day rolling average basis.
 - (3) For an affected facility for which modification commenced after February 28, 2005, the owner or operator shall not cause to be discharged into the atmosphere any gases that contain NO_x (expressed as NO₂) in excess of either:
 - (i) 180 ng/J (1.4 lb/MWh) gross energy output on a 30-day rolling average basis; or
 - (ii) 65 ng/J (0.15 lb/MMBtu) heat input on a 30-day rolling average basis.
- (f) 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, the owner or operator of an IGCC electric utility steam generating unit subject to the provisions of this subpart and for which construction, reconstruction, or modification commenced after February 28, 2005, shall meet the requirements specified in paragraphs (f)(1) through (3) of this section.
- (1) Except as provided for in paragraphs (f)(2) and (3) of this section, the owner or operator shall not cause to be discharged into the atmosphere any gases that contain NO_x (expressed as NO₂) in excess of 130 ng/J (1.0 lb/MWh) gross energy output on a 30-day rolling average basis.
 - (2) When burning liquid fuel exclusively or in combination with solid-derived fuel such that the liquid fuel contributes 50 percent or more of the total heat input to the combined cycle combustion turbine, the owner or operator shall not cause to be discharged into the atmosphere any gases that contain NO_x (expressed as NO₂) in excess of 190 ng/J (1.5 lb/MWh) gross energy output on a 30-day rolling average basis.
 - (3) In cases when during a 30-day rolling average compliance period liquid fuel is burned in such a manner to meet the conditions in paragraph (f)(2) of this section for only a portion of the clock hours in the 30-day period, the owner or operator shall not cause to be discharged into the atmosphere any gases that contain NO_x (expressed as NO₂) in excess of the computed weighted-average emissions limit based on the proportion of gross energy output (in MWh) generated during the compliance period for each of emissions limits in paragraphs (f)(1) and (2) of this section.

§ 60.45Da Standard for mercury (Hg).

- (a) For each coal-fired electric utility steam generating unit other than an IGCC electric utility steam generating unit, 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 subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility for which construction, modification, or reconstruction commenced after January 30, 2004, any gases that contain mercury (Hg) emissions in excess of each Hg emissions limit in paragraphs (a)(1) through (5) of this section that applies to you. The Hg emissions limits in paragraphs (a)(1) through (5) of this section are based on a 12-month rolling average basis using the procedures in §60.50Da(h).
 - (1) For each coal-fired electric utility steam generating unit that burns only bituminous coal, you must not discharge into the atmosphere any gases from a new affected source that contain Hg in excess of 20×10^{-6} pound per megawatt hour (lb/MWh) or 0.020 lb/gigawatt-hour (GWh) on an output basis. The International System of Units (SI) equivalent is 0.0025 ng/J.
 - (2) For each coal-fired electric utility steam generating unit that burns only subbituminous coal:

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- (i) If your unit is located in a county-level geographical area receiving greater than 25 inches per year (in/yr) mean annual precipitation, based on the most recent publicly available U.S. Department of Agriculture 30-year data, you must not discharge into the atmosphere any gases from a new affected source that contain Hg in excess of 66×10^{-6} lb/MWh or 0.066 lb/GWh on an output basis. The SI equivalent is 0.0083 ng/J.
- (ii) If your unit is located in a county-level geographical area receiving less than or equal to 25 in/yr mean annual precipitation, based on the most recent publicly available U.S. Department of Agriculture 30-year data, you must not discharge into the atmosphere any gases from a new affected source that contain Hg in excess of 97×10^{-6} lb/MWh or 0.097 lb/GWh on an output basis. The SI equivalent is 0.0122 ng/J.
- (3) For each coal-fired electric utility steam generating unit that burns only lignite, you must not discharge into the atmosphere any gases from a new affected source that contain Hg in excess of 175×10^{-6} lb/MWh or 0.175 lb/GWh on an output basis. The SI equivalent is 0.0221 ng/J.
- (4) For each coal-burning electric utility steam generating unit that burns only coal refuse, you must not discharge into the atmosphere any gases from a new affected source that contain Hg in excess of 16×10^{-6} lb/MWh or 0.016 lb/GWh on an output basis. The SI equivalent is 0.0020 ng/J.
- (5) For each coal-fired electric utility steam generating unit that burns a blend of coals from different coal ranks (*i.e.* , bituminous coal, subbituminous coal, lignite) or a blend of coal and coal refuse, you must not discharge into the atmosphere any gases from a new affected source that contain Hg in excess of the unit-specific Hg emissions limit established according to paragraph (a)(5)(i) or (ii) of this section, as applicable to the affected unit.
 - (i) If you operate a coal-fired electric utility steam generating unit that burns a blend of coals from different coal ranks or a blend of coal and coal refuse, you must not discharge into the atmosphere any gases from a new affected source that contain Hg in excess of the computed weighted Hg emissions limit based on the Btu, MWh, or MJ) contributed by each coal rank burned during the compliance period and its applicable Hg emissions limit in paragraphs (a)(1) through (4) of this section as determined using Equation 1 in this section. For each affected source, you must comply with the weighted Hg emissions limit calculated using Equation 1 in this section based on the total Hg emissions from the unit and the total Btu, MWh, or MJ contributed by all fuels burned during the compliance period.

$$EL_b = \frac{\sum_{i=1}^n EL_i (HH_i)}{\sum_{i=1}^n HH_i} \quad (\text{Eq. 1})$$

Where:

EL_b = Total allowable Hg in lb/MWh that can be emitted to the atmosphere from any affected source being averaged according to this paragraph.

EL_i = Hg emissions limit for the subcategory i (coal rank) that applies to affected source, lb/MWh;

HH_i = For each affected source, the Btu, MWh, or MJ contributed by the corresponding subcategory i (coal rank) burned during the compliance period; and

n = Number of subcategories (coal ranks) being averaged for an affected source.

- (ii) If you operate a coal-fired electric utility steam generating unit that burns a blend of coals from different coal ranks or a blend of coal and coal refuse together with one or more non-regulated, supplementary fuels, you must not discharge into the atmosphere any gases from a new affected source that contain Hg in excess of the computed weighted Hg emission limit based on the Btu, MWh, or MJ contributed by each coal rank burned during the compliance period and its applicable Hg emissions limit in paragraphs (a)(1) through (4) of this section as determined using Equation 1 in this section. For each affected source. You must comply with the weighted Hg emissions limit calculated using Equation 1 in this section based on the total Hg emissions from

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the unit contributed by both regulated and nonregulated fuels burned during the compliance period and the total Btu, MWh, or MJ contributed by both regulated and nonregulated fuels burned during the compliance period.

- (b) For each IGCC electric utility steam generating unit, on and after the date on which the initial performance test required to be conducted under §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 for which construction, modification, or reconstruction commenced after January 30, 2004, any gases that contain Hg emissions in excess of 20×10^{-6} lb/MWh or 0.020 lb/GWh on an output basis. The SI equivalent is 0.0025 ng/J. This Hg emissions limit is based on a 12-month rolling average basis using the procedures in §60.50Da(h).

§ 60.46Da [Reserved]

§ 60.47Da Commercial demonstration permit.

- (a) An owner or operator of an affected facility proposing to demonstrate an emerging technology may apply to the Administrator for a commercial demonstration permit. The Administrator will issue a commercial demonstration permit in accordance with paragraph (e) of this section. Commercial demonstration permits may be issued only by the Administrator, and this authority will not be delegated.
- (b) An owner or operator of an affected facility that combusts solid solvent refined coal (SRC-I) and who is issued a commercial demonstration permit by the Administrator is not subject to the SO₂ emission reduction requirements under §60.43Da(c) but must, as a minimum, reduce SO₂ emissions to 20 percent of the potential combustion concentration (80 percent reduction) for each 24-hour period of steam generator operation and to less than 520 ng/J (1.20 lb/MMBtu) heat input on a 30-day rolling average basis.
- (c) An owner or operator of a fluidized bed combustion electric utility steam generator (atmospheric or pressurized) who is issued a commercial demonstration permit by the Administrator is not subject to the SO₂ emission reduction requirements under §60.43Da(a) but must, as a minimum, reduce SO₂ emissions to 15 percent of the potential combustion concentration (85 percent reduction) on a 30-day rolling average basis and to less than 520 ng/J (1.20 lb/MMBtu) heat input on a 30-day rolling average basis.
- (d) The owner or operator of an affected facility that combusts coal-derived liquid fuel and who is issued a commercial demonstration permit by the Administrator is not subject to the applicable NO_x emission limitation and percent reduction under §60.44Da(a) but must, as a minimum, reduce emissions to less than 300 ng/J (0.70 lb/MMBtu) heat input on a 30-day rolling average basis.
- (e) Commercial demonstration permits may not exceed the following equivalent MW electrical generation capacity for any one technology category, and the total equivalent MW electrical generation capacity for all commercial demonstration plants may not exceed 15,000 MW.

Technology	Pollutant	Equivalent electrical capacity (MW electrical output)
Solid solvent refined coal (SCR I)	SO ₂	6,000–10,000
Fluidized bed combustion (atmospheric)	SO ₂	400–3,000
Fluidized bed combustion (pressurized)	SO ₂	400–1,200
Coal liquification	NO _x	750–10,000
Total allowable for all technologies		15,000

§ 60.48Da Compliance provisions.

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- (a) Compliance with the PM emission limitation under §60.42Da(a)(1) constitutes compliance with the percent reduction requirements for PM under §60.42Da(a)(2) and (3).
- (b) Compliance with the NO_x emission limitation under §60.44Da(a)(1) constitutes compliance with the percent reduction requirements under §60.44Da(a)(2).
- (c) The PM emission standards under §60.42Da, the NO_x emission standards under §60.44Da, and the Hg emission standards under §60.45Da apply at all times except during periods of startup, shutdown, or malfunction.
- (d) During emergency conditions in the principal company, an affected facility with a malfunctioning flue gas desulfurization system may be operated if SO₂ emissions are minimized by:
 - (1) Operating all operable flue gas desulfurization system modules, and bringing back into operation any malfunctioned module as soon as repairs are completed,
 - (2) Bypassing flue gases around only those flue gas desulfurization system modules that have been taken out of operation because they were incapable of any SO₂ emission reduction or which would have suffered significant physical damage if they had remained in operation, and
 - (3) Designing, constructing, and operating a spare flue gas desulfurization system module for an affected facility larger than 365 MW (1,250 MMBtu/hr) heat input (approximately 125 MW electrical output capacity). The Administrator may at his discretion require the owner or operator within 60 days of notification to demonstrate spare module capability. To demonstrate this capability, the owner or operator must demonstrate compliance with the appropriate requirements under paragraph under §60.43Da(a), (b), (d), (e), and (h) for any period of operation lasting from 24 hours to 30 days when:
 - (i) Any one flue gas desulfurization module is not operated,
 - (ii) The affected facility is operating at the maximum heat input rate,
 - (iii) The fuel fired during the 24-hour to 30-day period is representative of the type and average sulfur content of fuel used over a typical 30-day period, and
 - (iv) The owner or operator has given the Administrator at least 30 days notice of the date and period of time over which the demonstration will be performed.
- (e) After the initial performance test required under §60.8, compliance with the SO₂ emission limitations and percentage reduction requirements under §60.43Da and the NO_x emission limitations under §60.44Da is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30 day average emission rate for both SO₂ and NO_x and a new percent reduction for SO₂ are calculated to show compliance with the standards.
- (f) For the initial performance test required under §60.8, compliance with the SO₂ emission limitations and percent reduction requirements under §60.43Da and the NO_x emission limitation under §60.44Da is based on the average emission rates for SO₂, NO_x, and percent reduction for SO₂ for the first 30 successive boiler operating days. The initial performance test is the only test in which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first boiler operating day of the 30 successive boiler operating days is completed 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 the facility.
- (g) The owner or operator of an affected facility subject to emission limitations in this subpart shall determine compliance as follows:
 - (1) Compliance with applicable 30-day rolling average SO₂ and NO_x emission limitations is determined by calculating the arithmetic average of all hourly emission rates for SO₂ and NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction (NO_x only), or emergency conditions (SO₂ only).
 - (2) Compliance with applicable SO₂ percentage reduction requirements is determined based on the average inlet and outlet SO₂ emission rates for the 30 successive boiler operating days.

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- (3) Compliance with applicable daily average PM emission limitations is determined by calculating the arithmetic average of all hourly emission rates for PM each boiler operating day, except for data obtained during startup, shutdown, and malfunction. Averages are only calculated for boiler operating days that have valid data for at least 18 hours of unit operation during which the standard applies. Instead, the valid hourly emission rates are averaged with the next boiler operating day with 18 hours or more of valid PM CEMS data to determine compliance.
- (h) If an owner or operator has not obtained the minimum quantity of emission data as required under §60.49Da of this subpart, compliance of the affected facility with the emission requirements under §§60.43Da and 60.44Da of this subpart for the day on which the 30-day period ends may be determined by the Administrator by following the applicable procedures in section 7 of Method 19 of appendix A of this part.
- (i) *Compliance provisions for sources subject to §60.44Da(d)(1), (e)(1), (e)(2)(i), (e)(3)(i), or (f)*. The owner or operator of an affected facility subject to §60.44Da(d)(1), (e)(1), (e)(2)(i), (e)(3)(i), or (f) shall calculate NO_x emissions as 1.194×10^{-7} lb/scf-ppm times the average hourly NO_x output concentration in ppm (measured according to the provisions of §60.49Da(c)), times the average hourly flow rate (measured in scfh, according to the provisions of §60.49Da(l) or §60.49Da(m)), divided by the average hourly gross energy output (measured according to the provisions of §60.49Da(k)). Alternatively, for oil-fired and gas-fired units, NO_x emissions may be calculated by multiplying the hourly NO_x emission rate in lb/MMBtu (measured by the CEMS required under §§60.49Da(c) and (d)), by the hourly heat input rate (measured according to the provisions of §60.49Da(n)), and dividing the result by the average gross energy output (measured according to the provisions of §60.49Da(k)).
- (j) *Compliance provisions for duct burners subject to §60.44Da(a)(1)*. To determine compliance with the emissions limits for NO_x required by §60.44Da(a) for duct burners used in combined cycle systems, either of the procedures described in paragraph (j)(1) or (2) of this section may be used:
- (1) The owner or operator of an affected duct burner shall conduct the performance test required under §60.8 using the appropriate methods in appendix A of this part. Compliance with the emissions limits under §60.44Da(a)(1) is determined on the average of three (nominal 1-hour) runs for the initial and subsequent performance tests. During the performance test, one sampling site shall be located in the exhaust of the turbine prior to the duct burner. A second sampling site shall be located at the outlet from the heat recovery steam generating unit. Measurements shall be taken at both sampling sites during the performance test; or
 - (2) The owner or operator of an affected duct burner may elect to determine compliance by using the continuous emission monitoring system (CEMS) specified under §60.49Da for measuring NO_x and oxygen (O₂) (or carbon dioxide (CO₂)) and meet the requirements of §60.49Da. Alternatively, data from a NO_x emission rate (*i.e.*, NO_x-diluent) CEMS certified according to the provisions of §75.20(c) of this chapter and appendix A to part 75 of this chapter, and meeting the quality assurance requirements of §75.21 of this chapter and appendix B to part 75 of this chapter, may be used, with the following caveats. Data used to meet the requirements of §60.51Da shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter. The sampling site shall be located at the outlet from the steam generating unit. The NO_x emission rate at the outlet from the steam generating unit shall constitute the NO_x emission rate from the duct burner of the combined cycle system.
- (k) *Compliance provisions for duct burners subject to §60.44Da(d)(1) or (e)(1)*. To determine compliance with the emission limitation for NO_x required by §60.44Da(d)(1) or (e)(1) for duct burners used in combined cycle systems, either of the procedures described in paragraphs (k)(1) and (2) of this section may be used:
- (1) The owner or operator of an affected duct burner used in combined cycle systems shall determine compliance with the applicable NO_x emission limitation in §60.44Da(d)(1) or (e)(1) as follows:
 - (i) The emission rate (E) of NO_x shall be computed using Equation 2 in this section:

$$E = \frac{(C_{i,g} \times Q_{i,g}) - (C_u \times Q_u)}{(O_{i,g} \times h)} \quad (\text{Eq. 2})$$

Where:

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E = Emission rate of NO_x from the duct burner, ng/J (lb/MWh) gross output;

C_{sg} = Average hourly concentration of NO_x exiting the steam generating unit, ng/dscm (lb/dscf);

C_{te} = Average hourly concentration of NO_x in the turbine exhaust upstream from duct burner, ng/dscm (lb/dscf);

Q_{sg} = Average hourly volumetric flow rate of exhaust gas from steam generating unit, dscm/hr (dscf/hr);

Q_{te} = Average hourly volumetric flow rate of exhaust gas from combustion turbine, dscm/hr (dscf/hr);

O_{sg} = Average hourly gross energy output from steam generating unit, J (MWh); and

h = Average hourly fraction of the total heat input to the steam generating unit derived from the combustion of fuel in the affected duct burner.

(ii) Method 7E of appendix A of this part shall be used to determine the NO_x concentrations (C_{sg} and C_{te}). Method 2, 2F or 2G of appendix A of this part, as appropriate, shall be used to determine the volumetric flow rates (Q_{sg} and Q_{te}) of the exhaust gases. The volumetric flow rate measurements shall be taken at the same time as the concentration measurements.

(iii) The owner or operator shall develop, demonstrate, and provide information satisfactory to the Administrator to determine the average hourly gross energy output from the steam generating unit, and the average hourly percentage of the total heat input to the steam generating unit derived from the combustion of fuel in the affected duct burner.

(iv) Compliance with the applicable NO_x emission limitation in §60.44Da(d)(1) or (e)(1) is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests.

(2) The owner or operator of an affected duct burner used in a combined cycle system may elect to determine compliance with the applicable NO_x emission limitation in §60.44Da(d)(1) or (e)(1) on a 30-day rolling average basis as indicated in paragraphs (k)(2)(i) through (iv) of this section.

(i) The emission rate (E) of NO_x shall be computed using Equation 3 in this section:

$$E = \frac{(C_{sg} \times Q_{sg})}{O_{cc}} \quad (\text{Eq. 3})$$

Where:

E = Emission rate of NO_x from the duct burner, ng/J (lb/MWh) gross output;

C_{sg} = Average hourly concentration of NO_x exiting the steam generating unit, ng/dscm (lb/dscf);

Q_{sg} = Average hourly volumetric flow rate of exhaust gas from steam generating unit, dscm/hr (dscf/hr); and

O_{cc} = Average hourly gross energy output from entire combined cycle unit, J (MWh).

(ii) The CEMS specified under §60.49Da for measuring NO_x and O₂ (or CO₂) shall be used to determine the average hourly NO_x concentrations (C_{sg}). The continuous flow monitoring system specified in §60.49Da(l) or §60.49Da(m) shall be used to determine the volumetric flow rate (Q_{sg}) of the exhaust gas. If the option to use the flow monitoring system in §60.49Da(m) is selected, the flow rate data used to meet the requirements of §60.51Da shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter. The sampling site shall be located at the outlet from the steam generating unit.

(iii) The continuous monitoring system specified under §60.49Da(k) for measuring and determining gross energy output shall be used to determine the average hourly gross energy output from the entire combined cycle unit (O_{cc}), which is the combined output from the combustion turbine and the steam generating unit.

(iv) The owner or operator may, in lieu of installing, operating, and recording data from the continuous flow monitoring system specified in §60.49Da(l), determine the mass rate (lb/hr) of NO_x emissions by installing,

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operating, and maintaining continuous fuel flow meters following the appropriate measurements procedures specified in appendix D of part 75 of this chapter. If this compliance option is selected, the emission rate (E) of NO_x shall be computed using Equation 4 in this section:

$$E = \frac{(ER_{sg} \times H_{cc})}{O_{cc}} \quad (\text{Eq. 4})$$

Where:

E = Emission rate of NO_x from the duct burner, ng/J (lb/MWh) gross output;

ER_{sg} = Average hourly emission rate of NO_x exiting the steam generating unit heat input calculated using appropriate F factor as described in Method 19 of appendix A of this part, ng/J (lb/MMBtu);

H_{cc} = Average hourly heat input rate of entire combined cycle unit, J/hr (MMBtu/hr); and

O_{cc} = Average hourly gross energy output from entire combined cycle unit, J (MWh).

- (3) When an affected duct burner steam generating unit utilizes a common steam turbine with one or more affected duct burner steam generating units, the owner or operator shall either:
- (i) Determine compliance with the applicable NO_x emissions limits by measuring the emissions combined with the emissions from the other unit(s) utilizing the common steam turbine; or
 - (ii) Develop, demonstrate, and provide information satisfactory to the Administrator on methods for apportioning the combined gross energy output from the steam turbine for each of the affected duct burners. The Administrator may approve such demonstrated substitute methods for apportioning the combined gross energy output measured at the steam turbine whenever the demonstration ensures accurate estimation of emissions regulated under this part.
- (l) *Compliance provisions for sources subject to §60.45Da.* The owner or operator of an affected facility subject to §60.45Da (new sources constructed or reconstructed after January 30, 2004) shall calculate the Hg emission rate (lb/MWh) for each calendar month of the year, using hourly Hg concentrations measured according to the provisions of §60.49Da(p) in conjunction with hourly stack gas volumetric flow rates measured according to the provisions of §60.49Da(l) or (m), and hourly gross electrical outputs, determined according to the provisions in §60.49Da(k). Compliance with the applicable standard under §60.45Da is determined on a 12-month rolling average basis.
- (m) *Compliance provisions for sources subject to §60.43Da(i)(1)(i), (i)(2)(i), (i)(3)(i), (j)(1)(i), (j)(2)(i), or (j)(3)(i).* The owner or operator of an affected facility subject to §60.43Da(i)(1)(i), (i)(2)(i), (i)(3)(i), (j)(1)(i), (j)(2)(i), or (j)(3)(i) shall calculate SO₂ emissions as 1.660 × 10⁻⁷ lb/scf-ppm times the average hourly SO₂ output concentration in ppm (measured according to the provisions of §60.49Da(b)), times the average hourly flow rate (measured according to the provisions of §60.49Da(l) or §60.49Da(m)), divided by the average hourly gross energy output (measured according to the provisions of §60.49Da(k)). Alternatively, for oil-fired and gas-fired units, SO₂ emissions may be calculated by multiplying the hourly SO₂ emission rate (in lb/MMBtu), measured by the CEMS required under §60.49Da, by the hourly heat input rate (measured according to the provisions of §60.49Da(n)), and dividing the result by the average gross energy output (measured according to the provisions of §60.49Da(k)).
- (n) *Compliance provisions for sources subject to §60.42Da(c)(1).* The owner or operator of an affected facility subject to §60.42Da(c)(1) shall calculate PM emissions by multiplying the average hourly PM output concentration, measured according to the provisions of §60.49Da(t), by the average hourly flow rate, measured according to the provisions of §60.49Da(l), and divided by the average hourly gross energy output, measured according to the provisions of §60.49Da(k). Compliance with the emission limit is determined by calculating the arithmetic average of the hourly emission rates computed for each boiler operating day.
- (o) *Compliance provisions for sources subject to §60.42Da(c)(2) or (d).* Except as provided for in paragraph (p) of this section, the owner or operator of an affected facility for which construction, reconstruction, or modification commenced

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after February 28, 2005, shall demonstrate compliance with each applicable emission limit according to the requirements in paragraphs (o)(1) through (o)(5) of this section and use a COMS to demonstrate compliance with §60.42Da(b).

- (1) You must conduct a performance test to demonstrate initial compliance with the applicable PM emissions limit in 60.42Da(c)(2) or (d) by the applicable date specified in §60.8(a). Thereafter, you must conduct each subsequent performance test within 12 calendar months of the date of the prior performance test. You must conduct each performance test according to the requirements in §60.8 using the test methods and procedures in §60.50Da.
- (2) You must monitor the performance of each electrostatic precipitator or fabric filter (baghouse) operated to comply with the applicable PM emissions limit in §60.42Da(c)(2) or (d) using a continuous opacity monitoring system (COMS) according to the requirements in paragraphs (o)(2)(i) through (vi) unless you elect to comply with one of the alternatives provided in paragraphs (o)(3) and (o)(4) of this section, as applicable to your control device.
 - (i) Each COMS must meet Performance Specification 1 in 40 CFR part 60, appendix B.
 - (ii) You must comply with the quality assurance requirements in paragraphs (o)(4)(ii)(A) through (E) of this section.
 - (A) You 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 Performance Specification 1 in 40 CFR part 60, appendix B.
 - (B) You must adjust the zero and span whenever the 24-hour zero drift or 24-hour span drift exceeds 4 percent opacity. The COMS must allow for the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified. The optical surfaces exposed to the effluent gases must be cleaned prior to performing the zero and span drift adjustments, except for systems using automatic zero adjustments. For systems using automatic zero adjustments, the optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.
 - (C) You must apply a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. All procedures applied must provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.
 - (D) Except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments, the COMS must be in continuous operation and must 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.
 - (E) You must reduce all data from the COMS to 6-minute averages. Six-minute opacity averages must be calculated from 36 or more data points equally spaced over each 6-minute period. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments must not be included in the data averages. An arithmetic or integrated average of all data may be used.
 - (iii) During each performance test conducted according to paragraph (o)(1) of this section, you must establish an opacity baseline level. The value of the opacity baseline level is determined by averaging all of the 6-minute average opacity values (reported to the nearest 0.1 percent opacity) from the COMS measurements recorded during each of the test run intervals conducted for the performance test, and then adding 2.5 percent opacity to your calculated average opacity value for all of the test runs. If your calculated average opacity value for all of the test runs is less than 5.0 percent, then the opacity baseline level is set at 5.0 percent.
 - (iv) You must evaluate the preceding 24-hour average opacity level measured by the COMS each boiler operating day excluding periods of affected source startup, shutdown, or malfunction. If the measured 24-hour average opacity emission level is greater than the baseline opacity level determined in paragraph (o)(2)(iii) of this section, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high opacity incident and take the appropriate corrective action as soon as practicable to

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adjust control settings or repair equipment to reduce the measured 24-hour average opacity to a level below the baseline opacity level.

- (v) You must record the opacity measurements, calculations performed, and any corrective actions taken. The record of corrective action taken must include the date and time during which the measured 24-hour average opacity was greater than baseline opacity level, and the date, time, and description of the corrective action.
 - (vi) If the measured 24-hour average opacity for your affected source remains at a level greater than the opacity baseline level after 7 days, then you must conduct a new PM performance test according to paragraph (o)(1) of this section and establish a new opacity baseline value according to paragraph (o)(2) of this section. This new performance test must be conducted within 60 days of the date that the measured 24-hour average opacity was first determined to exceed the baseline opacity level unless a waiver is granted by the appropriate delegated permitting authority.
- (3) As an alternative to complying with the requirements of paragraph (o)(2) of this section, an owner or operator may elect to monitor the performance of an electrostatic precipitator (ESP) operated to comply with the applicable PM emissions limit in §60.42Da(c)(2) or (d) using an ESP predictive model developed in accordance with the requirements in paragraphs (o)(3)(i) through (v) of this section.
- (i) You must calibrate the ESP predictive model with each PM control device used to comply with the applicable PM emissions limit in §60.42Da(c)(2) or (d) operating under normal conditions. In cases when a wet scrubber is used in combination with an ESP to comply with the PM emissions limit, the daily average liquid-to-gas flow rate for the wet scrubber must be maintained at 90 percent of average ratio measured during all test run intervals for the performance test conducted according to paragraph (o)(1) of this section.
 - (ii) You must develop a site-specific monitoring plan that includes a description of the ESP predictive model used, the model input parameters, and the procedures and criteria for establishing monitoring parameter baseline levels indicative of compliance with the PM emissions limit. You must submit the site-specific monitoring plan for approval by the appropriate delegated permitting authority. For reference purposes in preparing the monitoring plan, see the OAQPS "Compliance Assurance Monitoring (CAM) Protocol for an Electrostatic Precipitator (ESP) Controlling Particulate Matter (PM) Emissions from a Coal-Fired Boiler." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality Planning and 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 Continuous Emission Monitoring .
 - (iii) You must run the ESP predictive model using the applicable input data each boiler operating day and evaluate the model output for the preceding boiler operating day excluding periods of affected source startup, shutdown, or malfunction. If the values for one or more of the model parameters exceed the applicable baseline levels determined according to your approved site-specific monitoring plan, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of a model parameter deviation and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to return the model output to within the applicable baseline levels.
 - (iv) You must record the ESP predictive model inputs and outputs and any corrective actions taken. The record of corrective action taken must include the date and time during which the model output values exceeded the applicable baseline levels, and the date, time, and description of the corrective action.
 - (v) If after 7 consecutive days a model parameter continues to exceed the applicable baseline level, then you must conduct a new PM performance test according to paragraph (o)(1) of this section. This new performance test must be conducted within 60 days of the date that the model parameter was first determined to exceed its baseline level unless a waiver is granted by the appropriate delegated permitting authority.
- (4) As an alternative to complying with the requirements of paragraph (o)(2) of this section, an owner or operator may elect to monitor the performance of a fabric filter (baghouse) operated to comply with the applicable PM emissions limit in

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§60.42Da(c)(2) or (d) by using a bag leak detection system according to the requirements in paragraphs (o)(4)(i) through (v) of this section.

- (i) Each bag leak detection system must meet the specifications and requirements in paragraphs (o)(4)(i)(A) through (H) of this section.
 - (A) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.
 - (B) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator must continuously record the output from the bag leak detection system using electronic or other means (*e.g.* , using a strip chart recorder or a data logger.)
 - (C) The bag leak detection system must be equipped with an alarm system that will react when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (o)(4)(i)(D) of this section, and the alarm must be located such that it can be noticed by the appropriate plant personnel.
 - (D) In the initial adjustment of the bag leak detection system, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
 - (E) Following initial adjustment, you must not adjust the averaging period, alarm set point, or alarm delay time without approval from the appropriate delegated permitting authority except as provided in paragraph (d)(1)(vi) of this section.
 - (F) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (o)(4)(ii) of this section.
 - (G) You must install the bag leak detection sensor downstream of the fabric filter and upstream of any wet scrubber.
 - (H) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (ii) You must develop and submit to the appropriate delegated permitting authority for approval a site-specific monitoring plan for each bag leak detection system. You must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (o)(4)(ii)(A) through (F) of this section.
 - (A) Installation of the bag leak detection system;
 - (B) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;
 - (C) Operation of the bag leak detection system, including quality assurance procedures;
 - (D) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;
 - (E) How the bag leak detection system output will be recorded and stored; and
 - (F) Corrective action procedures as specified in paragraph (o)(4)(iii) of this section. In approving the site-specific monitoring plan, the appropriate delegated permitting authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

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- (iii) For each bag leak detection system, you must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (o)(4)(ii)(F) of this section, you must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
 - (A) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;
 - (B) Sealing off defective bags or filter media;
 - (C) Replacing defective bags or filter media or otherwise repairing the control device;
 - (D) Sealing off a defective fabric filter compartment;
 - (E) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
 - (F) Shutting down the process producing the particulate emissions.
- (iv) You must maintain records of the information specified in paragraphs (o)(4)(iv)(A) through (C) of this section for each bag leak detection system.
 - (A) Records of the bag leak detection system output;
 - (B) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and
 - (C) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.
- (v) Of after any period of composed of 30 boiler operating days during which the alarm rate exceeds 5 percent of the process operating time (excluding control device or process startup, shutdown, and malfunction), then you must conduct a new PM performance test according to paragraph (o)(1) of this section. This new performance test must be conducted within 60 days of the date that the alarm rate was first determined to exceed 5 percent limit unless a wavier is granted by the appropriate delegated permitting authority.
- (5) An owner or operator of a modified affected source electing to meet the emission limitations in §.42Da(d) shall determine the percent reduction in PM by using the emission rate for PM determined by the performance test conducted according to the requirements in paragraph (o)(1) of this section and the ash content on a mass basis of the fuel burned during each performance test run as determined by analysis of the fuel as fired.
- (p) As an alternative to meeting the compliance provisions specified in paragraph (o) of this section, an owner or operator may elect to install, certify, maintain, and operate a CEMS measuring PM emissions discharged from the affected facility to the atmosphere and record the output of the system as specified in paragraphs (p)(1) through (p)(8) of this section.
 - (1) The owner or operator shall submit a written notification to the Administrator of intent to demonstrate compliance with this subpart by using a CEMS measuring PM. This notification shall be sent at least 30 calendar days before the initial startup of the monitor for compliance determination purposes. The owner or operator may discontinue operation of the monitor and instead return to demonstration of compliance with this subpart according to the requirements in paragraph (o) of this section by submitting written notification to the Administrator of such intent at least 30 calendar days before shutdown of the monitor for compliance determination purposes.
 - (2) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in §60.49Da(v).
 - (3) 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 the date of notification to the Administrator required under paragraph (p)(1) of this section, whichever is later.

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- (4) Compliance with the applicable emissions limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data. The 24-hour block arithmetic average emission concentration shall be calculated using EPA Reference Method 19 of appendix A of this part, section 4.1.
- (5) At a minimum, valid CEMS hourly averages shall be obtained for 75 percent of all operating hours on a 30-day rolling average basis. Beginning on January 1, 2012, valid CEMS hourly averages shall be obtained for 90 percent of all operating hours on a 30-day rolling average basis.
 - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
 - (ii) [Reserved]
- (6) The 1-hour arithmetic averages required shall be expressed in ng/J, MMBtu/hr, or lb/MWh 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.
- (7) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (j)(5) of this section are not met.
- (8) 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 90 percent (only 75 percent is required prior to January 1, 2012) of all operating hours per 30-day rolling average.

§ 60.49Da Emission monitoring.

- (a) Except as provided for in paragraphs (t) and (u) of this section, the owner or operator of an affected facility, shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the SO₂ control system), alternate parameters indicative of the PM control system's performance and/or good combustion are monitored (subject to the approval of the Administrator).
- (b) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring SO₂ emissions, except where natural gas is the only fuel combusted, as follows:
 - (1) Sulfur dioxide emissions are monitored at both the inlet and outlet of the SO₂ control device.
 - (2) For a facility that qualifies under the numerical limit provisions of §60.43Da(d), (i), (j), or (k) SO₂ emissions are only monitored as discharged to the atmosphere.
 - (3) An "as fired" fuel monitoring system (upstream of coal pulverizers) meeting the requirements of Method 19 of appendix A of this part may be used to determine potential SO₂ emissions in place of a continuous SO₂ emission monitor at the inlet to the SO₂ control device as required under paragraph (b)(1) of this section.
 - (4) If the owner or operator has installed and certified a SO₂ continuous emissions monitoring system (CEMS) according to the requirements of §75.20(c)(1) of this chapter and appendix A to part 75 of this chapter, and is continuing to meet the ongoing quality assurance requirements of §75.21 of this chapter and appendix B to part 75 of this chapter, that CEMS may be used to meet the requirements of this section, provided that:
 - (i) A CO₂ or O₂ continuous monitoring system is installed, calibrated, maintained and operated at the same location, according to paragraph (d) of this section; and
 - (ii) For sources subject to an SO₂ emission limit in lb/MMBtu under §60.43Da:
 - (A) When relative accuracy testing is conducted, SO₂ concentration data and CO₂(or O₂) data are collected simultaneously; and

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- (B) In addition to meeting the applicable SO₂ and CO₂ (or O₂) relative accuracy specifications in Figure 2 of appendix B to part 75 of this chapter, the relative accuracy (RA) standard in section 13.2 of Performance Specification 2 in appendix B to this part is met when the RA is calculated on a lb/MMBtu basis; and
- (iii) The reporting requirements of §60.51Da are met. The SO₂ and CO₂ (or O₂) data reported to meet the requirements of §60.51Da shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the SO₂ data have been bias adjusted according to the procedures of part 75 of this chapter.
- (c)(1) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring NO_x emissions discharged to the atmosphere; or
- (2) If the owner or operator has installed a NO_x emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.51Da. Data reported to meet the requirements of §60.51Da shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.
- (d) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring the O₂ or carbon dioxide (CO₂) content of the flue gases at each location where SO₂ or NO_x emissions are monitored. For affected facilities subject to a lb/MMBtu SO₂ emission limit under §60.43Da, if the owner or operator has installed and certified a CO₂ or O₂ monitoring system according to §75.20(c) of this chapter and Appendix A to part 75 of this chapter and the monitoring system continues to meet the applicable quality-assurance provisions of §75.21 of this chapter and appendix B to part 75 of this chapter, that CEMS may be used together with the part 75 SO₂ concentration monitoring system described in paragraph (b) of this section, to determine the SO₂ emission rate in lb/MMBtu. SO₂ data used to meet the requirements of §60.51Da shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.
- (e) The CEMS under paragraphs (b), (c), and (d) of this section are operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.
- (f)
- (1) For units that began construction, reconstruction, or modification on or before February 28, 2005, the owner or operator shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with CEMS, the owner or operator shall supplement emission data with other monitoring systems approved by the Administrator or the reference methods and procedures as described in paragraph (h) of this section.
- (2) For units that began construction, reconstruction, or modification after February 28, 2005, the owner or operator shall obtain emission data for at least 90 percent of all operating hours for each 30 successive boiler operating days. If this minimum data requirement cannot be met with a CEMS, the owner or operator shall supplement emission data with other monitoring systems approved by the Administrator or the reference methods and procedures as described in paragraph (h) of this section.
- (g) The 1-hour averages required under paragraph §60.13(h) are expressed in ng/J (lb/MMBtu) heat input and used to calculate the average emission rates under §60.48Da. The 1-hour averages are calculated using the data points required under §60.13(h)(2).
- (h) When it becomes necessary to supplement CEMS data to meet the minimum data requirements in paragraph (f) of this section, the owner or operator shall use the reference methods and procedures as specified in this paragraph. Acceptable alternative methods and procedures are given in paragraph (j) of this section.

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- (1) Method 6 of appendix A of this part shall be used to determine the SO₂ concentration at the same location as the SO₂ monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1-hour average.
- (2) Method 7 of appendix A of this part shall be used to determine the NO_x concentration at the same location as the NO_x monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.
- (3) The emission rate correction factor, integrated bag sampling and analysis procedure of Method 3B of appendix A of this part shall be used to determine the O₂ or CO₂ concentration at the same location as the O₂ or CO₂ monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.
- (4) The procedures in Method 19 of appendix A of this part shall be used to compute each 1-hour average concentration in ng/J (lb/MMBtu) heat input.
 - (i) The owner or operator shall use methods and procedures in this paragraph to conduct monitoring system performance evaluations under §60.13(c) and calibration checks under §60.13(d). Acceptable alternative methods and procedures are given in paragraph (j) of this section.
- (1) Methods 3B, 6, and 7 of appendix A of this part shall be used to determine O₂, SO₂, and NO_x concentrations, respectively.
- (2) SO₂ or NO_x (NO), as applicable, shall be used for preparing the calibration gas mixtures (in N₂, as applicable) under Performance Specification 2 of appendix B of this part.
- (3) For affected facilities burning only fossil fuel, the span value for a CEMS for measuring opacity is between 60 and 80 percent. Span values for a CEMS measuring NO_x shall be determined using one of the following procedures:
 - (i) Except as provided under paragraph (i)(3)(ii) of this section, NO_x span values shall be determined as follows:

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Fossil fuel	Span values for NO _x (ppm)
Gas	500.
Liquid	500.
Solid	1,000.
Combination	500 (x + y) + 1,000z.

Where:

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

(ii) As an alternative to meeting the requirements of paragraph (i)(3)(i) of this section, the owner or operator of an affected facility may elect to use the NO_x span values determined according to section 2.1.2 in appendix A to part 75 of this chapter.

- (4) All span values computed under paragraph (i)(3)(i) of this section for burning combinations of fossil fuels are rounded to the nearest 500 ppm. Span values computed under paragraph (i)(3)(ii) of this section shall be rounded off according to section 2.1.2 in appendix A to part 75 of this chapter.
- (5) For affected facilities burning fossil fuel, alone or in combination with non-fossil fuel and determining span values under paragraph (i)(3)(i) of this section, the span value of the SO₂ CEMS at the inlet to the SO₂ control device is 125 percent of the maximum estimated hourly potential emissions of the fuel fired, and the outlet of the SO₂ control device is 50 percent of maximum estimated hourly potential emissions of the fuel fired. For affected facilities determining span values under paragraph (i)(3)(ii) of this section, SO₂ span values shall be determined according to section 2.1.1 in appendix A to part 75 of this chapter.
- (j) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
 - (1) For Method 6 of appendix A of this part, Method 6A or 6B (whenever Methods 6 and 3 or 3B of appendix A of this part data are used) or 6C of appendix A of this part may be used. Each Method 6B of appendix A of this part sample obtained over 24 hours represents 24 1-hour averages. If Method 6A or 6B of appendix A of this part is used under paragraph (i) of this section, the conditions under §60.48Da(d)(1) apply; these conditions do not apply under paragraph (h) of this section.
 - (2) For Method 7 of appendix A of this part, Method 7A, 7C, 7D, or 7E of appendix A of this part may be used. If Method 7C, 7D, or 7E of appendix A of this part is used, the sampling time for each run shall be 1 hour.
 - (3) For Method 3 of appendix A of this part, Method 3A or 3B of appendix A of this part may be used if the sampling time is 1 hour.
 - (4) For Method 3B of appendix A of this part, Method 3A of appendix A of this part may be used.
- (k) The procedures specified in paragraphs (k)(1) through (3) of this section shall be used to determine gross output for sources demonstrating compliance with the output-based standard under §60.44Da(d)(1).
 - (1) The owner or operator of an affected facility with electricity generation shall install, calibrate, maintain, and operate a wattmeter; measure gross electrical output in MWh on a continuous basis; and record the output of the monitor.

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- (2) The owner or operator of an affected facility with process steam generation shall install, calibrate, maintain, and operate meters for steam flow, temperature, and pressure; measure gross process steam output in joules per hour (or Btu per hour) on a continuous basis; and record the output of the monitor.
- (3) For affected facilities generating process steam in combination with electrical generation, the gross energy output is determined from the gross electrical output measured in accordance with paragraph (k)(1) of this section plus 75 percent of the gross thermal output (measured relative to ISO conditions) of the process steam measured in accordance with paragraph (k)(2) of this section.
- (l) The owner or operator of an affected facility demonstrating compliance with an output-based standard under §60.42Da, §60.43Da, §60.44Da, or §60.45Da shall install, certify, operate, and maintain a continuous flow monitoring system meeting the requirements of Performance Specification 6 of appendix B of this part and the CD assessment, RATA and reporting provisions of procedure 1 of appendix F of this part, and record the output of the system, for measuring the volumetric flow rate of exhaust gases discharged to the atmosphere; or
- (m) Alternatively, data from a continuous flow monitoring system certified according to the requirements of §75.20(c) of this chapter and appendix A to part 75 of this chapter, and continuing to meet the applicable quality control and quality assurance requirements of §75.21 of this chapter and appendix B to part 75 of this chapter, may be used. Flow rate data reported to meet the requirements of §60.51Da shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.
- (n) Gas-fired and oil-fired units. The owner or operator of an affected unit that qualifies as a gas-fired or oil-fired unit, as defined in 40 CFR 72.2, may use, as an alternative to the requirements specified in either paragraph (l) or (m) of this section, a fuel flow monitoring system certified and operated according to the requirements of appendix D of part 75 of this chapter.
- (o) The owner or operator of a duct burner, as described in §60.41Da, which is subject to the NO_x standards of §60.44Da(a)(1), (d)(1), or (e)(1) is not required to install or operate a CEMS to measure NO_x emissions; a wattmeter to measure gross electrical output; meters to measure steam flow, temperature, and pressure; and a continuous flow monitoring system to measure the flow of exhaust gases discharged to the atmosphere.
- (p) The owner or operator of an affected facility demonstrating compliance with an Hg limit in §60.45Da shall install and operate a CEMS to measure and record the concentration of Hg in the exhaust gases from each stack according to the requirements in paragraphs (p)(1) through (p)(3) of this section. Alternatively, for an affected facility that is also subject to the requirements of subpart I of part 75 of this chapter, the owner or operator may install, certify, maintain, operate and quality-assure the data from a Hg CEMS according to §75.10 of this chapter and appendices A and B to part 75 of this chapter, in lieu of following the procedures in paragraphs (p)(1) through (p)(3) of this section.
 - (1) The owner or operator must install, operate, and maintain each CEMS according to Performance Specification 12A in appendix B to this part.
 - (2) The owner or operator must conduct a performance evaluation of each CEMS according to the requirements of §60.13 and Performance Specification 12A in appendix B to this part.
 - (3) The owner or operator must operate each CEMS according to the requirements in paragraphs (p)(3)(i) through (iv) of this section.
 - (i) As specified in §60.13(e)(2), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
 - (ii) The owner or operator must reduce CEMS data as specified in §60.13(h).
 - (iii) The owner or operator shall use all valid data points collected during the hour to calculate the hourly average Hg concentration.
 - (iv) The owner or operator must record the results of each required certification and quality assurance test of the CEMS.

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- (4) Mercury CEMS data collection must conform to paragraphs (p)(4)(i) through (iv) of this section.
- (i) For each calendar month in which the affected unit operates, valid hourly Hg concentration data, stack gas volumetric flow rate data, moisture data (if required), and electrical output data (i.e., valid data for all of these parameters) shall be obtained for at least 75 percent of the unit operating hours in the month.
 - (ii) Data reported to meet the requirements of this subpart shall not include hours of unit startup, shutdown, or malfunction. In addition, for an affected facility that is also subject to subpart I of part 75 of this chapter, data reported to meet the requirements of this subpart shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.
 - (iii) If valid data are obtained for less than 75 percent of the unit operating hours in a month, you must discard the data collected in that month and replace the data with the mean of the individual monthly emission rate values determined in the last 12 months. In the 12-month rolling average calculation, this substitute Hg emission rate shall be weighted according to the number of unit operating hours in the month for which the data capture requirement of §60.49Da(p)(4)(i) was not met.
 - (iv) Notwithstanding the requirements of paragraph (p)(4)(iii) of this section, if valid data are obtained for less than 75 percent of the unit operating hours in another month in that same 12-month rolling average cycle, discard the data collected in that month and replace the data with the highest individual monthly emission rate determined in the last 12 months. In the 12-month rolling average calculation, this substitute Hg emission rate shall be weighted according to the number of unit operating hours in the month for which the data capture requirement of §60.49Da(p)(4)(i) was not met.
- (q) As an alternative to the CEMS required in paragraph (p) of this section, the owner or operator may use a sorbent trap monitoring system (as defined in §72.2 of this chapter) to monitor Hg concentration, according to the procedures described in §75.15 of this chapter and appendix K to part 75 of this chapter.
- (r) For Hg CEMS that measure Hg concentration on a dry basis or for sorbent trap monitoring systems, the emissions data must be corrected for the stack gas moisture content. A certified continuous moisture monitoring system that meets the requirements of §75.11(b) of this chapter is acceptable for this purpose. Alternatively, the appropriate default moisture value, as specified in §75.11(b) or §75.12(b) of this chapter, may be used.
- (s) The owner or operator shall prepare and submit to the Administrator for approval a unit-specific monitoring plan for each monitoring system, at least 45 days before commencing certification testing of the monitoring systems. The owner or operator shall comply with the requirements in your plan. The plan must address the requirements in paragraphs (s)(1) through (6) of this section.
- (1) Installation of the CEMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of the exhaust emissions (e.g. , on or downstream of the last control device);
 - (2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems;
 - (3) Performance evaluation procedures and acceptance criteria (e.g. , calibrations, relative accuracy test audits (RATA), etc.);
 - (4) Ongoing operation and maintenance procedures in accordance with the general requirements of §60.13(d) or part 75 of this chapter (as applicable);
 - (5) Ongoing data quality assurance procedures in accordance with the general requirements of §60.13 or part 75 of this chapter (as applicable); and
 - (6) Ongoing recordkeeping and reporting procedures in accordance with the requirements of this subpart.
- (t) The owner or operator of an affected facility demonstrating compliance with the output-based emissions limitation under §60.42Da(c)(1) shall install, certify, operate, and maintain a CEMS for measuring PM emissions according to the

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requirements of paragraph (v) of this section. An owner or operator of an affected source demonstrating compliance with the input-based emission limitation under §60.42Da(c)(2) may install, certify, operate, and maintain a CEMS for measuring PM emissions according to the requirements of paragraph (v) of this section.

- (u) An owner or operator of an affected source that meets the conditions in either paragraph (u)(1), (2) or (3) of this section is exempted from the continuous opacity monitoring system requirements in paragraph (a) of this section and the monitoring requirements in §60.48Da(o).
- (1) A CEMS for measuring PM emissions is used to demonstrate continuous compliance on a boiler operating day average with the emissions limitations under §60.42Da(a)(1) or §60.42Da(c)(2) and is installed, certified, operated, and maintained on the affected source according to the requirements of paragraph (v) of this section; or
 - (2) The affected source burns only gaseous fuels and does not use a post-combustion technology to reduce emissions of SO₂ or PM; or
 - (3) The affected source does not use post-combustion technology (except a wet scrubber) for reducing PM, SO₂, or carbon monoxide (CO) emissions, burns only natural gas, gaseous fuels, or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected source are maintained at levels less than or equal to 1.4 lb/MWh on a boiler operating day average basis. Owners and operators of affected sources electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (u)(3)(i) through (iv) of this section.
 - (i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (u)(3)(i)(A) through (D) of this section.
 - (A) 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.
 - (B) 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).
 - (C) 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. At least two data points per hour must be used to calculate each 1-hour average.
 - (D) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure I in appendix F of this part.
 - (ii) You must calculate the 1-hour average CO emissions levels for each boiler 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 useful energy output from 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 boiler operating day.
 - (iii) You must evaluate the preceding 24-hour average CO emission level each boiler operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 1.4 lb/MWh, 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 1.4 lb/MWh or less.
 - (iv) You must record the CO measurements and calculations performed according to paragraph (u)(3) 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 1.4 lb/MWh, and the date, time, and description of the corrective action.

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- (v) The owner or operator of an affected facility using a CEMS measuring PM emissions to meet requirements of this subpart shall install, certify, operate, and maintain the CEMS as specified in paragraphs (v)(1) through (v)(3).
- (1) The owner or operator shall conduct a performance evaluation of the CEMS according to the applicable requirements of §60.13, Performance Specification 11 in appendix B of this part, and procedure 2 in appendix F of this part.
- (2) During each relative accuracy test run of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O₂ (or CO₂) data shall be collected concurrently (or within a 30-to 60-minute period) by both the CEMS and conducting performance tests using the following test methods.
- (i) For PM, EPA Reference Method 5, 5B, or 17 of appendix A of this part shall be used.
- (ii) For O₂ (or CO₂), EPA Reference Method 3, 3A, or 3B of appendix A of this part, as applicable shall be used.
- (3) 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.
- (w)
- (1) Except as provided for under paragraphs (w)(2), (w)(3), and (w)(4) of this section, the SO₂, NO_x, CO₂, and O₂ CEMS required under paragraphs (b) through (d) of this section shall be installed, certified, and operated in accordance with the applicable procedures in Performance Specification 2 or 3 in appendix B to this part or according to the procedures in appendices A and B to part 75 of this chapter. Daily calibration drift assessments and quarterly accuracy determinations shall be done in accordance with Procedure 1 in appendix F to this part, and a data assessment report (DAR), prepared according to section 7 of Procedure 1 in appendix F to this part, shall be submitted with each compliance report required under §60.51 Da., the owner or operator may elect to implement the following alternative data accuracy assessment procedures:
- (2) As an alternative to meeting the requirements of paragraph (w)(1) of this section, an owner or operator may elect to implement the following alternative data accuracy assessment procedures. For all required CO₂ and O₂ CEMS and for SO₂ and NO_x CEMS with span values greater than 100 ppm, the daily calibration error test and calibration adjustment procedures described in sections 2.1.1 and 2.1.3 of appendix B to part 75 of this chapter may be followed instead of the CD assessment procedures in Procedure 1, section 4.1 of appendix F of this part. If this option is selected, the data validation and out-of-control provisions in sections 2.1.4 and 2.1.5 of appendix B to part 75 of this chapter shall be followed instead of the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part. For the purposes of data validation under this subpart, the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part shall apply to SO₂ and NO_x span values less than 100 ppm;
- (3) As an alternative to meeting the requirements of paragraph (w)(1) of this section, an owner or operator may elect to implement the following alternative data accuracy assessment procedures. For all required CO₂ and O₂ CEMS and for SO₂ and NO_x CEMS with span values greater than 30 ppm, quarterly linearity checks may be performed in accordance with section 2.2.1 of appendix B to part 75 of this chapter, instead of performing the cylinder gas audits (CGAs) described in Procedure 1, section 5.1.2 of appendix F to this part. If this option is selected: The frequency of the linearity checks shall be as specified in section 2.2.1 of appendix B to part 75 of this chapter; the applicable linearity specifications in section 3.2 of appendix A to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.2.3 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.2.4 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the cylinder gas audits described in Procedure 1, section 5.1.2 of appendix F to this part shall be performed for SO₂ and NO_x span values less than or equal to 30 ppm;
- (4) As an alternative to meeting the requirements of paragraph (w)(1) of this section, an owner or operator may elect to implement the following alternative data accuracy assessment procedures. For SO₂, CO₂, and O₂ CEMS

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and for NO_x CEMS, RATAs may be performed in accordance with section 2.3 of appendix B to part 75 of this chapter instead of following the procedures described in Procedure 1, section 5.1.1 of appendix F to this part. If this option is selected: The frequency of each RATA shall be as specified in section 2.3.1 of appendix B to part 75 of this chapter; the applicable relative accuracy specifications shown in Figure 2 in appendix B to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.3.2 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.3.3 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the relative accuracy specification in section 13.2 of Performance Specification 2 in appendix B to this part shall be met on a lb/MMBtu basis for SO₂ (regardless of the SO₂ emission level during the RATA), and for NO_x when the average NO_x emission rate measured by the reference method during the RATA is less than 0.100 lb/MMBtu;

- (5) If the owner or operator elects to implement the alternative data assessment procedures described in paragraphs (w)(2) through (w)(4) of this section, each data assessment report shall include a summary of the results of all of the RATAs, linearity checks, CGAs, and calibration error or drift assessments required by paragraphs (w)(2) through (w)(4) of this section.

§ 60.50Da Compliance determination procedures and methods.

- (a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the methods in appendix A of this part or the methods and procedures as specified in this section, except as provided in §60.8(b). Section 60.8(f) does not apply to this section for SO₂ and NO_x. Acceptable alternative methods are given in paragraph (e) of this section.
- (b) The owner or operator shall determine compliance with the PM standards in §60.42Da as follows:
- (1) The dry basis F factor (O₂) procedures in Method 19 of appendix A of this part shall be used to compute the emission rate of PM.
 - (2) For the particular matter concentration, Method 5 of appendix A of this part shall be used at affected facilities without wet FGD systems and Method 5B of appendix A of this part shall be used after wet FGD systems.
 - (i) The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of no greater than 160±14 °C (320±25 °F).
 - (ii) For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B of appendix A of this part shall be used to determine the O₂ concentration. The O₂ sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O₂ traverse points may be reduced to 12 provided that Method 1 of appendix A of this part is used to locate the 12 O₂ traverse points. If the grab sampling procedure is used, the O₂ concentration for the run shall be the arithmetic mean of the sample O₂ concentrations at all traverse points.
 - (3) Method 9 of appendix A of this part and the procedures in §60.11 shall be used to determine opacity.
- (c) The owner or operator shall determine compliance with the SO₂ standards in §60.43Da as follows:
- (1) The percent of potential SO₂ emissions (%Ps) to the atmosphere shall be computed using the following equation:

$$\%P_s = \frac{(100 - \%R_f)(100 - \%R_g)}{100}$$

Where:

%Ps = Percent of potential SO₂ emissions, percent;

%Rf = Percent reduction from fuel pretreatment, percent; and

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%R_g = Percent reduction by SO₂ control system, percent.

- (2) The procedures in Method 19 of appendix A of this part may be used to determine percent reduction (%R_p) of sulfur by such processes as fuel pretreatment (physical coal cleaning, hydrodesulfurization of fuel oil, etc.), coal pulverizers, and bottom and fly ash interactions. This determination is optional.
 - (3) The procedures in Method 19 of appendix A of this part shall be used to determine the percent SO₂ reduction (%R_g) of any SO₂ control system. Alternatively, a combination of an "as fired" fuel monitor and emission rates measured after the control system, following the procedures in Method 19 of appendix A of this part, may be used if the percent reduction is calculated using the average emission rate from the SO₂ control device and the average SO₂ input rate from the "as fired" fuel analysis for 30 successive boiler operating days.
 - (4) The appropriate procedures in Method 19 of appendix A of this part shall be used to determine the emission rate.
 - (5) The CEMS in §60.49Da(b) and (d) shall be used to determine the concentrations of SO₂ and CO₂ or O₂.
- (d) The owner or operator shall determine compliance with the NO_x standard in §60.44Da as follows:
- (1) The appropriate procedures in Method 19 of appendix A of this part shall be used to determine the emission rate of NO_x.
 - (2) The continuous monitoring system in §60.49Da(c) and (d) shall be used to determine the concentrations of NO_x and CO₂ or O₂.
- (e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
- (1) For Method 5 or 5B of appendix A of this part, Method 17 of appendix A of this part may be used at facilities with or without wet FGD systems if the stack temperature at the sampling location does not exceed an average temperature of 160 °C (320 °F). The procedures of §§2.1 and 2.3 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if it is used after wet FGD systems. Method 17 of appendix A of this part shall not be used after wet FGD systems if the effluent is saturated or laden with water droplets.
 - (2) The F_c factor (CO₂) procedures in Method 19 of appendix A of this part may be used to compute the emission rate of PM under the stipulations of §60.46(d)(1). The CO₂ shall be determined in the same manner as the O₂ concentration.
- (f) Electric utility combined cycle gas turbines are performance tested for PM, SO₂, and NO_x using the procedures of Method 19 of appendix A of this part. The SO₂ and NO_x emission rates from the gas turbine used in Method 19 of appendix A of this part calculations are determined when the gas turbine is performance tested under subpart GG of this part. The potential uncontrolled PM emission rate from a gas turbine is defined as 17 ng/J (0.04 lb/MMBtu) heat input.
- (g) For the purposes of determining compliance with the emission limits in §60.45Da, the owner or operator of an electric utility steam generating unit which is also a cogeneration unit shall use the procedures in paragraphs (g)(1) and (2) of this section to calculate emission rates based on electrical output to the grid plus 75 percent of the equivalent electrical energy (measured relative to ISO conditions) in the unit's process stream.
- (1) All conversions from Btu/hr unit input to MW unit output must use equivalents found in 40 CFR 60.40(a)(1) for electric utilities (*i.e.* , 250 MMBtu/hr input to an electric utility steam generating unit is equivalent to 73 MW input to the electric utility steam generating unit); 73 MW input to the electric utility steam generating unit is equivalent to 25 MW output from the boiler electric utility steam generating unit; therefore, 250 MMBtu input to the electric utility steam generating unit is equivalent to 25 MW output from the electric utility steam generating unit).
 - (2) Use the Equation 5 in this section to determine the cogeneration Hg emission rate over a specific compliance period.

$$ER_{\text{cogen}} = \frac{M}{(V_{\text{grid}} + 0.75 \times V_{\text{process}})} \quad (\text{Eq. 5})$$

Where:

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ER_{cogen} = Cogeneration Hg emission rate over a compliance period in lb/MWh;

E = Mass of Hg emitted from the stack over the same compliance period (lb);

V_{grid} = Amount of energy sent to the grid over the same compliance period (MWh); and

$V_{process}$ = Amount of energy converted to steam for process use over the same compliance period (MWh).

(h) The owner or operator shall determine compliance with the Hg limit in §60.45Da according to the procedures in paragraphs (h)(1) through (3) of this section.

(1) The initial performance test shall be commenced by the applicable date specified in §60.8(a). The required CEMS must be certified prior to commencing the test. The performance test consists of collecting hourly Hg emission data (lb/MWh) with the CEMS for 12 successive months of unit operation (excluding hours of unit startup, shutdown and malfunction). The average Hg emission rate is calculated for each month, and then the weighted, 12-month average Hg emission rate is calculated according to paragraph (h)(2) or (h)(3) of this section, as applicable. If, for any month in the initial performance test, the minimum data capture requirement in §60.49Da(p)(4)(i) is not met, the owner or operator shall report a substitute Hg emission rate for that month, as follows. For the first such month, the substitute monthly Hg emission rate shall be the arithmetic average of all valid hourly Hg emission rates recorded to date. For any subsequent month(s) with insufficient data capture, the substitute monthly Hg emission rate shall be the highest valid hourly Hg emission rate recorded to date. When the 12-month average Hg emission rate for the initial performance test is calculated, for each month in which there was insufficient data capture, the substitute monthly Hg emission rate shall be weighted according to the number of unit operating hours in that month. Following the initial performance test, the owner or operator shall demonstrate compliance by calculating the weighted average of all monthly Hg emission rates (in lb/MWh) for each 12 successive calendar months, excluding data obtained during startup, shutdown, or malfunction.

(2) If a CEMS is used to demonstrate compliance, follow the procedures in paragraphs (h)(2)(i) through (iii) of this section to determine the 12-month rolling average.

(i) Calculate the total mass of Hg emissions over a month (M), in lb, using either Equation 6 in paragraph (h)(2)(i)(A) of this section or Equation 7 in paragraph (h)(2)(i)(B) of this section, in conjunction with Equation 8 in paragraph (h)(2)(i)(C) of this section.

(A) If the Hg CEMS measures Hg concentration on a wet basis, use Equation 6 below to calculate the Hg mass emissions for each valid hour:

$$E_h = KC_h Q_h t_h \quad (\text{Eq. 6})$$

Where:

E_h = Hg mass emissions for the hour, (lb);

K = Units conversion constant, 6.24×10^{-11} lb-scm/ μ gm-scf;

C_h = Hourly Hg concentration, wet basis, (μ gm/scm);

Q_h = Hourly stack gas volumetric flow rate, (scfh); and

t_h = Unit operating time, i.e., the fraction of the hour for which the unit operated. For example, $t_h = 0.50$ for a half-hour of unit operation and 1.00 for a full hour of operation.

(B) If the Hg CEMS measures Hg concentration on a dry basis, use Equation 7 below to calculate the Hg mass emissions for each valid hour:

$$E_h = KC_h Q_h t_h (1 - B_w) \quad (\text{Eq. 7})$$

Where:

E_h = Hg mass emissions for the hour, (lb);

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K = Units conversion constant, 6.24×10^{-11} lb-scm/ μ gm-scf;

C_h = Hourly Hg concentration, dry basis, (μ gm/dscm);

Q_h = Hourly stack gas volumetric flow rate, (scfh);

t_h = Unit operating time, *i.e.*, the fraction of the hour for which the unit operated; and

B_{ws} = Stack gas moisture content, expressed as a decimal fraction (*e.g.*, for 8 percent H₂O, B_{ws} = 0.08).

(C) Use Equation 8, below, to calculate M , the total mass of Hg emitted for the month, by summing the hourly masses derived from Equation 6 or 7 (as applicable):

$$M = \sum_{h=1}^n E_h \quad (\text{Eq. 8})$$

Where:

M = Total Hg mass emissions for the month, (lb);

E_h = Hg mass emissions for hour "h", from Equation 6 or 7 of this section, (lb); and

n = Number of unit operating hours in the month with valid CE and electrical output data, excluding hours of unit startup, shutdown and malfunction.

(ii) Calculate the monthly Hg emission rate on an output basis (lb/MWh) using Equation 9, below. For a cogeneration unit, use Equation 5 in paragraph (g) of this section instead.

$$ER = \frac{M}{P} \quad (\text{Eq. 9})$$

Where:

ER = Monthly Hg emission rate, (lb/MWh);

M = Total mass of Hg emissions for the month, from Equation 8, above, (lb); and

P = Total electrical output for the month, for the hours used to calculate M , (MWh).

(iii) Until 12 monthly Hg emission rates have been accumulated, calculate and report only the monthly averages. Then, for each subsequent calendar month, use Equation 10 below to calculate the 12-month rolling average as a weighted average of the Hg emission rate for the current month and the Hg emission rates for the previous 11 months, with one exception. Calendar months in which the unit does not operate (zero unit operating hours) shall not be included in the 12-month rolling average.

$$E_{avg} = \frac{\sum_{i=1}^{12} (ER_i \times n_i)}{\sum_{i=1}^{12} n_i} \quad (\text{Eq. 10})$$

Where:

E_{avg} = Weighted 12-month rolling average Hg emission rate, (lb/MWh);

ER_i = Monthly Hg emission rate, for month "i", (lb/MWh); and

n = Number of unit operating hours in month "i" with valid CEM and electrical output data, excluding hours of unit startup, shutdown, and malfunction.

(3) If a sorbent trap monitoring system is used in lieu of a Hg CEMS, as described in §75.15 of this chapter and in appendix K to part 75 of this chapter, calculate the monthly Hg emission rates using Equations 7 through 9 of this

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section, except that for a particular pair of sorbent traps, C_h in Equation 7 shall be the flow-proportional average Hg concentration measured over the data collection period.

- (i) Daily calibration drift (CD) tests and quarterly accuracy determinations shall be performed for Hg CEMS in accordance with Procedure 1 of appendix F to this part. For the CD assessments, you may use either elemental mercury or mercuric chloride (Hg^0 $HgCl_2$) standards. The four quarterly accuracy determinations shall consist of one RATA and three measurement error (ME) tests using $HgCl_2$ standards, as described in section 8.3 of Performance Specification 12-A in appendix B to this part (note: Hg^0 standards may be used if the Hg monitor does not have a converter). Alternatively, the owner or operator may implement the applicable daily, weekly, quarterly, and annual quality assurance (QA) requirements for Hg CEMS in appendix B to part 75 of this chapter, in lieu of the QA procedures in appendices B and F to this part. Annual RATA of sorbent trap monitoring systems shall be performed in accordance with appendices A and B to part 75 of this chapter, and all other quality assurance requirements specified in appendix K to part 75 of this chapter shall be met for sorbent trap monitoring systems.

§ 60.51Da Reporting requirements.

- (a) For SO_2 , NO_x , PM, and Hg emissions, the performance test data from the initial and subsequent performance test and from the performance evaluation of the continuous monitors (including the transmissometer) are submitted to the Administrator.
- (b) For SO_2 and NO_x the following information is reported to the Administrator for each 24-hour period.
- (1) Calendar date.
 - (2) The average SO_2 and NO_x emission rates (ng/J or lb/MMBtu) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective actions taken.
 - (3) Percent reduction of the potential combustion concentration of SO_2 for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.
 - (4) Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of the hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken.
 - (5) Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), emergency conditions (SO_2 only), or other reasons, and justification for excluding data for reasons other than startup, shutdown, malfunction, or emergency conditions.
 - (6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
 - (7) Identification of times when hourly averages have been obtained based on manual sampling methods.
 - (8) Identification of the times when the pollutant concentration exceeded full span of the CEMS.
 - (9) Description of any modifications to CEMS which could affect the ability of the CEMS to comply with Performance Specifications 2 or 3.
- (c) If the minimum quantity of emission data as required by §60.49Da is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of §60.48Da(h) is reported to the Administrator for that 30-day period:
- (1) The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable.
 - (2) The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable.
 - (3) The lower confidence limit for the mean outlet emission rate (E_o^*) and the upper confidence limit for the mean inlet emission rate (E_i^*) as applicable.

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- (4) The applicable potential combustion concentration.
 - (5) The ratio of the upper confidence limit for the mean outlet emission rate (E_o^*) and the allowable emission rate (E_{std}) as applicable.
- (d) If any standards under §60.43Da are exceeded during emergency conditions because of control system malfunction, the owner or operator of the affected facility shall submit a signed statement:
- (1) Indicating if emergency conditions existed and requirements under §60.48Da(d) were met during each period, and
 - (2) Listing the following information:
 - (i) Time periods the emergency condition existed;
 - (ii) Electrical output and demand on the owner or operator's electric utility system and the affected facility;
 - (iii) Amount of power purchased from interconnected neighboring utility companies during the emergency period;
 - (iv) Percent reduction in emissions achieved;
 - (v) Atmospheric emission rate (ng/J) of the pollutant discharged; and
 - (vi) Actions taken to correct control system malfunction.
- (e) If fuel pretreatment credit toward the SO₂ emission standard under §60.43Da is claimed, the owner or operator of the affected facility shall submit a signed statement:
- (1) Indicating what percentage cleaning credit was taken for the calendar quarter, and whether the credit was determined in accordance with the provisions of §60.50Da and Method 19 of appendix A of this part; and
 - (2) Listing the quantity, heat content, and date each pretreated fuel shipment was received during the previous quarter; the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the previous quarter.
- (f) For any periods for which opacity, SO₂ or NO_x emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.
- (g) For Hg, the following information shall be reported to the Administrator:
- (1) Company name and address;
 - (2) Date of report and beginning and ending dates of the reporting period;
 - (3) The applicable Hg emission limit (lb/MWh); and
 - (4) For each month in the reporting period:
 - (i) The number of unit operating hours;
 - (ii) The number of unit operating hours with valid data for Hg concentration, stack gas flow rate, moisture (if required), and electrical output;
 - (iii) The monthly Hg emission rate (lb/MWh);
 - (iv) The number of hours of valid data excluded from the calculation of the monthly Hg emission rate, due to unit startup, shutdown and malfunction; and
 - (v) The 12-month rolling average Hg emission rate (lb/MWh); and
 - (5) The data assessment report (DAR) required by appendix F to this part, or an equivalent summary of QA test results if the QA of part 75 of this chapter are implemented.

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- (h) The owner or operator of the affected facility shall submit a signed statement indicating whether:
- (1) The required CEMS calibration, span, and drift checks or other periodic audits have or have not been performed as specified.
 - (2) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.
 - (3) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
 - (4) Compliance with the standards has or has not been achieved during the reporting period.
- (i) For the purposes of the reports required under §60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under §60.42Da(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter.
- (j) The owner or operator of an affected facility shall submit the written reports required under this section and subpart A to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.
- (k) The owner or operator of an affected facility may submit electronic quarterly reports for SO₂ and/or NO_x and/or opacity and/or Hg in lieu of submitting the written reports required under paragraphs (b), (g), and (i) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

§ 60.52Da Recordkeeping requirements.

The owner or operator of an affected facility subject to the emissions limitations in §60.45Da shall provide notifications in accordance with §60.7(a) and shall maintain records of all information needed to demonstrate compliance including performance tests, monitoring data, fuel analyses, and calculations, consistent with the requirements of §60.7(f).

APPENDIX 40 CFR 60 SUBPART III

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(version dated 08/04/2009)

E.U. ID No.	Brief Description
-043	Diesel Emergency Black Start Generator, 800 kW
-044	Coal Field Diesel Generator

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: July 11, 2006

Rule Effective Date: January 8, 2007

Standardized Conditions Revision Date: August 4, 2009

40 CFR Part 60, Subpart III - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

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STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES
(version dated 08/04/2009)**What This Subpart Covers****§ 60.4200 Am I subject to this subpart?**

- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
- (1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:
- (i) 2007 or later, for engines that are not fire pump engines,
 - (ii) The model year listed in table 3 to this subpart or later model year, for fire pump engines.
- (2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:
- (i) Manufactured after April 1, 2006 and are not fire pump engines, or
 - (ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
- (3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.
- (b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.
- (c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 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 applicable to area sources.
- (d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

EMISSION STANDARDS FOR MANUFACTURERS**§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?**

- (a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.
- (b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.
- (c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.
- (d) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder

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to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

- (a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.
 - (1) For engines with a maximum engine power less than 37 KW (50 HP):
 - (i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and
 - (ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.
 - (2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.
- (b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.
 - (1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.
 - (2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.
- (c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.
- (d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

§ 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the useful life of the engines.

EMISSION STANDARDS FOR OWNERS AND OPERATORS

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

- (a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

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- (b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.
- (c) Owners and operators of non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (c)(1) and (2) of this section.
 - (1) Reduce nitrogen oxides (NO_x) emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (g/KW-hr) (1.2 grams per HP-hour (g/HP-hr)).
 - (2) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

- (a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).
- (b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.
- (c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.
- (d) Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section.
 - (1) Reduce NO_x emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour).
 - (2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

FUEL REQUIREMENTS FOR OWNERS AND OPERATORS**§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

- (a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).
- (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.
- (c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will

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be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

- (d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.
- (e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

OTHER REQUIREMENTS FOR OWNERS AND OPERATORS

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?

- (a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
- (b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.
- (c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.
- (d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.
- (e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.
- (f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.
- (g) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.
- (h) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

- (a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.
- (b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

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(version dated 08/04/2009)**COMPLIANCE REQUIREMENTS****§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?**

- (a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.
- (b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and §60.4202(c) using the certification procedures required in 40 CFR part 94 subpart C, and must test their engines as specified in 40 CFR part 94.
- (c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.
- (1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.
- (2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:
- (i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.
- (ii) Stationary CI internal combustion engines that meet Tier I requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier I requirements (or requirements for fire pumps) of this subpart.
- (iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier I requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.
- (3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.
- (i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate.

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- (ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.
- (iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.
- (d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.
- (e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.
- (f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.
- (g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.
- (h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.
- (i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

- (a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.
- (b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

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- (1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
 - (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
 - (3) Keeping records of engine manufacturer data indicating compliance with the standards.
 - (4) Keeping records of control device vendor data indicating compliance with the standards.
 - (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.
- (c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.
- (d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.
- (1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.
 - (2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.
 - (i) Identification of the specific parameters you propose to monitor continuously;
 - (ii) A discussion of the relationship between these parameters and NO_x and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO_x and PM emissions;
 - (iii) 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;
 - (iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
 - (v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
 - (3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.
- (e) Emergency stationary ICE may be operated 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. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone 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 ICE beyond 100 hours per year. For owners and operators of emergency engines

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meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

TESTING REQUIREMENTS FOR OWNERS AND OPERATORS

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

- (a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.
- (b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.
- (c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

- (d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section.

- (a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.
- (b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).
- (c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.
- (d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

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$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

C_i = concentration of NO_x or PM at the control device inlet,

C_o = concentration of NO_x or PM at the control device outlet, and

R = percent reduction of NO_x or PM emissions.

- (2) You must normalize the NO_x or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

$$C_{\text{adj}} = C_d \frac{5.9}{20.9 - \% \text{O}_2} \quad (\text{Eq. 3})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O_2 .

C_d = Measured concentration of NO_x or PM, uncorrected.

5.9 = 20.9 percent O_2 - 15 percent O_2 , the defined O_2 correction value, percent.

$\% \text{O}_2$ = Measured O_2 concentration, dry basis, percent.

- (3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(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:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$$

Where:

F_o = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2 , percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3 / J ($\text{dscf} / 10^6 \text{ Btu}$).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3 / J ($\text{dscf} / 10^6 \text{ Btu}$).

- (ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2 , as follows:

$$X_{\text{CO}_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

X_{CO_2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 - 15 percent O_2 , the defined O_2 correction value, percent.

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(iii) Calculate the NO_x and PM gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O₂.

C_d = Measured concentration of NO_x or PM, uncorrected.

%CO₂ = Measured CO₂ concentration, dry basis, percent.

(e) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NO_x concentration in ppm.

1.912x10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

NOTIFICATION, REPORTS, AND RECORDS FOR OWNERS AND OPERATORS

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

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- (ii) The address of the affected source;
 - (iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - (iv) Emission control equipment; and
 - (v) Fuel used.
- (2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.
- (i) All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - (ii) Maintenance conducted on the engine.
 - (iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.
 - (iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.
- (b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
- (c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

SPECIAL REQUIREMENTS**§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?**

- (a) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §60.4205. Non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, must meet the applicable emission standards in §60.4204(c).
- (b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

§ 60.4216 What requirements must I meet for engines used in Alaska?

- (a) Prior to December 1, 2010, owners and operators of stationary CI engines located in areas of Alaska not accessible by the Federal Aid Highway System should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.
- (b) The Governor of Alaska may submit for EPA approval, by no later than January 11, 2008, an alternative plan for implementing the requirements of 40 CFR part 60, subpart IIII, for public-sector electrical utilities located in rural areas of Alaska not accessible by the Federal Aid Highway System. This alternative plan must be based on the requirements of section 111 of the Clean Air Act including any increased risks to human health and the environment and must also be based on the unique circumstances related to remote power generation, climatic conditions, and serious economic impacts resulting from implementation of 40 CFR part 60, subpart IIII. If EPA approves by rulemaking process an alternative plan, the provisions as approved by EPA under that plan shall apply to the diesel engines used in new stationary internal combustion engines subject to this paragraph.

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

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- (a) Owners and operators of stationary CI ICE that do not use diesel fuel, or who have been given authority by the Administrator under §60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of §60.4207, may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4202 or §60.4203 using such fuels.
- (b) [Reserved]

GENERAL PROVISIONS**§ 60.4218 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

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 number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE 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 ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

- (1) The calendar year in which the engine was originally produced, or
- (2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is

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converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas 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 internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart III.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

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Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO _x	HC	NO _x	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO _x + NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

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Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

[As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:]

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO_x	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ ²	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)

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	2008+	6.4 (4.8)	0.20 (0.15)
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¹For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

²For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

³In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed ¹	Torque (percent) ²	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

¹Engine speed: ±2 percent of point.

²Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements

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<p>.1. Stationary CI internal combustion engine with a displacement of ≥ 30 liters per cylinder</p>	<p>a. Reduce NO_x emissions by 90 percent or more</p>	<p>i. Select the sampling port location and the number of traverse points;</p>	<p>(1) Method 1 or 1A of 40 CFR part 60, appendix A</p>	<p>(a) Sampling sites must be located at the inlet and outlet of the control device.</p>
		<p>ii. Measure O₂ at the inlet and outlet of the control device;</p>	<p>(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A</p>	<p>(b) Measurements to determine O₂ concentration must be made at the same time as the measurements for NO_x concentration.</p>
		<p>iii. If necessary, measure moisture content at the inlet and outlet of the control device; and,</p>	<p>(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)</p>	<p>(c) Measurements to determine moisture content must be made at the same time as the measurements for NO_x concentration.</p>
		<p>iv. Measure NO_x at the inlet and outlet of the control device</p>	<p>(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)</p>	<p>(d) NO_x concentration must be at 15 percent O₂, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.</p>
	<p>b. Limit the concentration of NO_x in the stationary CI internal combustion engine exhaust.</p>	<p>i. Select the sampling port location and the number of traverse points;</p>	<p>(1) Method 1 or 1A of 40 CFR part 60, Appendix A</p>	<p>(a) If using a control device, the sampling site must be located at the outlet of the control device.</p>
		<p>ii. Determine the O₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; and,</p>	<p>(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A</p>	<p>(b) Measurements to determine O₂ concentration must be made at the same time as the measurement for NO_x concentration.</p>
		<p>iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,</p>	<p>(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)</p>	<p>(c) Measurements to determine moisture content must be made at the same time as the measurement for NO_x concentration.</p>
		<p>iv. Measure NO_x at the exhaust of the stationary internal combustion engine</p>	<p>(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)</p>	<p>(d) NO_x concentration must be at 15 percent O₂, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.</p>

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	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, Appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

Table 8 to Subpart III of Part 60—Applicability of General Provisions to Subpart III

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

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General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified).
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart III.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder).
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

SECTION VI. APPENDIX 40 CFR 60, SUBPART KKKK
NSPS SUBPART KKKK, REQUIREMENTS FOR STATIONARY COMBUSTION TURBINES

This subpart establishes emission standards and compliance schedules for the control of emissions from stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005.

Applicability

§ 60.4305 Does this subpart apply to my stationary combustion turbine?

(a) If you are the owner or operator of a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005, your turbine is subject to this subpart. Only heat input to the combustion turbine should be included when determining whether or not this subpart is applicable to your turbine.

(b) Stationary combustion turbines regulated under this subpart are exempt from the requirements of subpart GG of this part.

§ 60.4310 What types of operations are exempt from these standards of performance?

(a) Not applicable (NA)

(b) NA

(c) NA

(d) NA

Emission Limits

§ 60.4315 What pollutants are regulated by this subpart?

The pollutants regulated by this subpart are nitrogen oxide (NO_x) and sulfur dioxide (SO₂).

§ 60.4320 What emission limits must I meet for nitrogen oxides (NO_x)?

(a) You must meet the emission limits for NO_x specified in Table 1 to this subpart.

(b) If you have two or more turbines that are connected to a single generator, each turbine must meet the emission limits for NO_x.

§ 60.4325 What emission limits must I meet for NO_x if my turbine burns both natural gas and distillate oil (or some other combination of fuels)?

You must meet the emission limits specified in Table 1 to this subpart. If your total heat input is greater than or equal to 50 percent natural gas, you must meet the corresponding limit for a natural gas-fired turbine when you are burning that fuel. Similarly, when your total heat input is greater than 50 percent distillate oil and fuels other than natural gas, you must meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that you burn that particular fuel.

§ 60.4330 What emission limits must I meet for sulfur dioxide (SO₂)?

(a) If your turbine is located in a continental area, you must comply with either paragraph (a)(1) or (a)(2) of this section.

(1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output, or

(2) You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

(b) NA.

General Compliance Requirements

§ 60.4333 What are my general requirements for complying with this subpart?

(a) You must operate and maintain your stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

(b) NA.

Monitoring

§ 60.4335 How do I demonstrate compliance for NO_x if I use water or steam injection?

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(a) If you are using water or steam injection to control NO_x emissions, you must install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine when burning a fuel that requires water or steam injection for compliance.

(b) Alternatively, you may use continuous emission monitoring, as follows:

(1) Install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NO_x monitor and a diluent gas (oxygen (O₂) or carbon dioxide (CO₂)) monitor, to determine the hourly NO_x emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu).

(2) NA.

(3) NA.

(4) NA.

§ 60.4340 How do I demonstrate continuous compliance for NO_x if I do not use water or steam injection?

(a) NA.

(b) NA.

§ 60.4345 What are the requirements for the continuous emission monitoring system equipment, if I choose to use this option?

If the option to use a NO_x CEMS is chosen:

(a) Each NO_x diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B to this part, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in appendix F to this part is not required. Alternatively, a NO_x diluent CEMS that is installed and certified according to appendix A of part 75 of this chapter is acceptable for use under this subpart. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

(b) As specified in §60.13(e)(2), during each full unit operating hour, both the NO_x monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_x emission rate for the hour.

(c) Each fuel flow meter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flow meters that meet the installation, certification, and quality assurance requirements of appendix D to part 75 of this chapter are acceptable for use under this subpart.

(d) Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.

(e) The owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this section. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph by implementing the QA program and plan described in section 1 of appendix B to part 75 of this chapter.

§ 60.4350 How do I use data from the continuous emission monitoring equipment to identify excess emissions?

For purposes of identifying excess emissions:

(a) All CEMS data must be reduced to hourly averages as specified in §60.13(h).

(b) For each unit operating hour in which a valid hourly average, as described in §60.4345(b), is obtained for both NO_x and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_x emission rate in units of ppm or lb/MMBtu, using the appropriate equation from method 19 in appendix A of this part. For any hour in which the hourly average O₂ concentration exceeds 19.0 percent O₂ (or the hourly average CO₂ concentration is less than 1.0 percent CO₂), a diluent cap value of 19.0 percent O₂ or 1.0 percent CO₂ (as applicable) may be used in the emission calculations.

(c) Correction of measured NO_x concentrations to 15 percent O₂ is not allowed.

(d) If you have installed and certified a NO_x diluent CEMS to meet the requirements of part 75 of this chapter, states can approve that only quality assured data from the CEMS shall be used to identify excess emissions under this subpart. Periods where the missing data substitution procedures in subpart D of part 75 are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under §60.7(c).

(e) All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages.

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(f) Calculate the hourly average NO_x emission rates, in units of the emission standards under §60.4320, using either ppm for units complying with the concentration limit or the following equation for units complying with the output based standard:

(1) For simple-cycle operation:

$$E = \frac{(\text{NO}_x)_h * (\text{HI})_h}{P} \quad (\text{Eq. 1})$$

Where:

E = hourly NO_x emission rate, in lb/MWh,

(NO_x)_h = hourly NO_x emission rate, in lb/MMBtu,

(HI)_h = hourly heat input rate to the unit, in MMBtu/h, measured using the fuel flow meter(s), *e.g.* , calculated using Equation D-15a in appendix D to part 75 of this chapter, and

P = gross energy output of the combustion turbine in MW.

(g) For simple cycle units without heat recovery, use the calculated hourly average emission rates from paragraph (f) of this section to assess excess emissions on a 4-hour rolling average basis, as described in §60.4380(b)(1).

(h) NA.

§ 60.4355 How do I establish and document a proper parameter monitoring plan?

(a) NA.

(b) NA.

§ 60.4360 How do I determine the total sulfur content of the turbine's combustion fuel? NA.

You must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in §60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17), which measure the major sulfur compounds, may be used.

§ 60.4365 How can I be exempted from monitoring the total sulfur content of the fuel?

You may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for units located in continental areas. You must use one of the following sources of information to make the required demonstration:

(a) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than less than 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for continental areas; or

(b) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for continental areas. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

§ 60.4370 How often must I determine the sulfur content of the fuel?

The frequency of determining the sulfur content of the fuel must be as follows:

(a) *Fuel oil.* For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (*i.e.* , flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank).

(b) *Gaseous fuel.* If you elect not to demonstrate sulfur content using options in §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.

(c) *Custom schedules.* Notwithstanding the requirements of paragraph (b) of this section, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (c)(1) and (c)(2) of this section, custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in §60.4330.

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(1) The two custom sulfur monitoring schedules set forth in paragraphs (c)(1)(i) through (iv) and in paragraph (c)(2) of this section are acceptable, without prior Administrative approval:

- (i) The owner or operator shall obtain daily total sulfur content measurements for 30 consecutive unit operating days, using the applicable methods specified in this subpart. Based on the results of the 30 daily samples, the required frequency for subsequent monitoring of the fuel's total sulfur content shall be as specified in paragraph (c)(1)(ii), (iii), or (iv) of this section, as applicable.
- (ii) If none of the 30 daily measurements of the fuel's total sulfur content exceeds half the applicable standard, subsequent sulfur content monitoring may be performed at 12-month intervals. If any of the samples taken at 12-month intervals has a total sulfur content greater than half but less than the applicable limit, follow the procedures in paragraph (c)(1)(iii) of this section. If any measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this section.
- (iii) If at least one of the 30 daily measurements of the fuel's total sulfur content is greater than half but less than the applicable limit, but none exceeds the applicable limit, then:
 - (A) Collect and analyze a sample every 30 days for 3 months. If any sulfur content measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this section. Otherwise, follow the procedures in paragraph (c)(1)(iii)(B) of this section.
 - (B) Begin monitoring at 6-month intervals for 12 months. If any sulfur content measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this section. Otherwise, follow the procedures in paragraph (c)(1)(iii)(C) of this section.
 - (C) Begin monitoring at 12-month intervals. If any sulfur content measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this section. Otherwise, continue to monitor at this frequency.
- (iv) If a sulfur content measurement exceeds the applicable limit, immediately begin daily monitoring according to paragraph (c)(1)(i) of this section. Daily monitoring shall continue until 30 consecutive daily samples, each having a sulfur content no greater than the applicable limit, are obtained. At that point, the applicable procedures of paragraph (c)(1)(ii) or (iii) of this section shall be followed.

(2) The owner or operator may use the data collected from the 720-hour sulfur sampling demonstration described in section 2.3.6 of appendix D to part 75 of this chapter to determine a custom sulfur sampling schedule, as follows:

- (i) If the maximum fuel sulfur content obtained from the 720 hourly samples does not exceed 20 grains/100 scf, no additional monitoring of the sulfur content of the gas is required, for the purposes of this subpart.
- (ii) If the maximum fuel sulfur content obtained from any of the 720 hourly samples exceeds 20 grains/100 scf, but none of the sulfur content values (when converted to weight percent sulfur) exceeds half the applicable limit, then the minimum required sampling frequency shall be one sample at 12 month intervals.
- (iii) If any sample result exceeds half the applicable limit, but none exceeds the applicable limit, follow the provisions of paragraph (c)(1)(iii) of this section.
- (iv) If the sulfur content of any of the 720 hourly samples exceeds the applicable limit, follow the provisions of paragraph (c)(1)(iv) of this section.

Reporting

§ 60.4375 What reports must I submit?

- (a) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, you must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.
- (b) For each affected unit that performs annual performance tests in accordance with §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

§ 60.4380 How are excess emissions and monitor downtime defined for NO_x?

For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that must be reported are defined as follows:

- (a) For turbines using water or steam to fuel ratio monitoring:

(1) An excess emission is any unit operating hour for which the 4-hour rolling average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with §60.4320, as established during the performance test required in §60.8. Any unit operating hour in which no water or steam is injected

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into the turbine when a fuel is being burned that requires water or steam injection for NO_x control will also be considered an excess emission.

(2) A period of monitor downtime is any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid.

(3) Each report must include the average steam or water to fuel ratio, average fuel consumption, and the combustion turbine load during each excess emission.

(b) For turbines using continuous emission monitoring, as described in §§60.4335(b) and 60.4345:

(1) An excess emissions is any unit operating period in which the 4-hour rolling average NO_x emission rate exceeds the applicable emission limit in §60.4320. For the purposes of this subpart, a "4-hour rolling average NO_x emission rate" is the arithmetic average of the average NO_x emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NO_x emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO_x emission rate is obtained for at least 3 of the 4 hours.

(2) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration, CO₂ or O₂ concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if you will use this information for compliance purposes.

(3) For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

(c) NA.

§ 60.4385 How are excess emissions and monitoring downtime defined for SO₂?

If you choose the option to monitor the sulfur content of the fuel, excess emissions and monitoring downtime are defined as follows:

(a) For samples of gaseous fuel obtained using daily sampling, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

(b) If the option to sample each delivery of fuel oil has been selected, you must immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.05 weight percent. You must continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and you must evaluate excess emissions according to paragraph (a) of this section. When all of the fuel from the delivery has been burned, you may resume using the as-delivered sampling option.

(c) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

§ 60.4390 What are my reporting requirements if I operate an emergency combustion turbine or a research and development turbine? NA.

§ 60.4395 When must I submit my reports?

All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period.

Performance Tests

§ 60.4400 How do I conduct the initial and subsequent performance tests, regarding NO_x?

(a) You must conduct an initial performance test, as required in §60.8. Subsequent NO_x performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).

(1) For each test run:

(ii) Measure the NO_x and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20 in appendix A of this part. Concurrently measure the heat input to the unit, using a fuel flow meter (or flow meters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of this part to calculate the NO_x emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in §60.4350(f) to calculate the NO_x emission rate in lb/MWh.

(2) Sampling traverse points for NO_x and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole

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probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.

(3) Notwithstanding paragraph (a)(2) of this section, you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of this part if the following conditions are met:

(i) You may perform a stratification test for NO_x and diluent pursuant to

(A) [Reserved], or

(B) The procedures specified in section 6.5.6.1(a) through (e) of appendix A of part 75 of this chapter.

(ii) Once the stratification sampling is completed, you may use the following alternative sample point selection criteria for the performance test:

(A) If each of the individual traverse point NO_x concentrations is within ±10 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±5 ppm or ±0.5 percent CO₂ (or O₂) from the mean for all traverse points, then you may use three points (located either 16.7, 50.0 and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The three points must be located along the measurement line that exhibited the highest average NO_x concentration during the stratification test; or

(B) For turbines with a NO_x standard greater than 15 ppm @ 15% O₂, you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_x concentrations is within ±5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±3 ppm or ±0.3 percent CO₂ (or O₂) from the mean for all traverse points.

(C) NA.

(b) The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. You may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. You must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes.

(1) If the stationary combustion turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel.

(2) NA.

(3) If water or steam injection is used to control NO_x with no additional post-combustion NO_x control and you choose to monitor the steam or water to fuel ratio in accordance with §60.4335, then that monitoring system must be operated concurrently with each EPA Method 20 or EPA Method 7E run and must be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable §60.4320 NO_x emissions limit.

(4) Compliance with the applicable emission limit in §60.4320 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NO_x emission rate at each tested level meets the applicable emission limit in §60.4320.

(5) If you elect to install a CEMS, the performance evaluation of the CEMS may either be conducted separately or (as described in §60.4405) as part of the initial performance test of the affected unit.

(6) The ambient temperature must be greater than 0 °F during the performance test.

§ 60.4405 How do I perform the initial performance test if I have chosen to install a NO_x-diluent CEMS?

If you elect to install and certify a NO_x-diluent CEMS under §60.4345, then the initial performance test required under §60.8 may be performed in the following alternative manner:

(a) Perform a minimum of nine RATA reference method runs, with a minimum time per run of 21 minutes, at a single load level, within plus or minus 25 percent of 100 percent of peak load. The ambient temperature must be greater than 0 °F during the RATA runs.

(b) For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) and measure the electrical and thermal output from the unit.

(c) Use the test data both to demonstrate compliance with the applicable NO_x emission limit under §60.4320 and to provide the required reference method data for the RATA of the CEMS described under §60.4335.

(d) Compliance with the applicable emission limit in §60.4320 is achieved if the arithmetic average of all of the NO_x emission rates for the RATA runs, expressed in units of ppm or lb/MWh, does not exceed the emission limit.

§ 60.4410 How do I establish a valid parameter range if I have chosen to continuously monitor parameters? NA.

§ 60.4415 How do I conduct the initial and subsequent performance tests for sulfur?

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(a) You must conduct an initial performance test, as required in §60.8. Subsequent SO₂ performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). There are three methodologies that you may use to conduct the performance tests.

(1) If you choose to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see §60.17) for natural gas or ASTM D4177 (incorporated by reference, see §60.17) for oil. Alternatively, for oil, you may follow the procedures for manual pipeline sampling in section 14 of ASTM D4057 (incorporated by reference, see §60.17). The fuel analyses of this section may be performed either by you, a service contractor retained by you, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using:

(i) For liquid fuels, ASTM D129, or alternatively D1266, D1552, D2622, D4294, or D5453 (all of which are incorporated by reference, see §60.17).

(ii) For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17).

(2) NA.

(3) NA.

(b) [Reserved]

Definitions

§ 60.4420 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein will have the meaning given them in the Clean Air Act and in subpart A (General Provisions) of this part.

Combustion turbine model means a group of combustion turbines having the same nominal air flow, combustor inlet pressure, combustor inlet temperature, firing temperature, turbine inlet temperature and turbine inlet pressure.

Diffusion flame stationary combustion turbine means any stationary combustion turbine where fuel and air are injected at the combustor and are mixed only by diffusion prior to ignition.

Efficiency means the combustion turbine manufacturer's rated heat rate at peak load in terms of heat input per unit of power output—based on the higher heating value of the fuel.

Excess emissions means a specified averaging period over which either (1) the NO_x emissions are higher than the applicable emission limit in §60.4320; (2) the total sulfur content of the fuel being combusted in the affected facility exceeds the limit specified in §60.4330; or (3) the recorded value of a particular monitored parameter is outside the acceptable range specified in the parameter monitoring plan for the affected unit.

Gross useful output means the gross useful work performed by the stationary combustion turbine system. For units using the mechanical energy directly or generating only electricity, the gross useful work performed is the gross electrical or mechanical output from the turbine/generator set. For combined heat and power units, the gross useful work performed is the gross electrical or mechanical output plus the useful thermal output (i.e., thermal energy delivered to a process).

ISO conditions means 288 Kelvin, 60 percent relative humidity and 101.3 kilopascals pressure.

Lean premix stationary combustion turbine means any stationary combustion turbine where the air and fuel are thoroughly mixed to form a lean mixture before delivery to the combustor. Mixing may occur before or in the combustion chamber. A lean premixed turbine may operate in diffusion flame mode during operating conditions such as startup and shutdown, extreme ambient temperature, or low or transient load.

Natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 British thermal units (Btu) per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

Peak load means 100 percent of the manufacturer's design capacity of the combustion turbine at ISO conditions.

Simple cycle combustion turbine means any stationary combustion turbine which does not recover heat from the combustion turbine exhaust gases to preheat the inlet combustion air to the combustion turbine, or which does not recover heat from the combustion turbine exhaust gases for purposes other than enhancing the performance of the combustion turbine itself.

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Stationary combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), heat recovery system, and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, any combined cycle combustion turbine, and any combined heat and power combustion turbine based system. Stationary means that the combustion turbine is not self propelled or intended to be propelled while performing its function. It may, however, be mounted on a vehicle for portability.

Unit operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Unit operating hour means a clock hour during which any fuel is combusted in the affected unit. If the unit combusts fuel for the entire clock hour, it is considered to be a full unit operating hour. If the unit combusts fuel for only part of the clock hour, it is considered to be a partial unit operating hour.

Table 1 to Subpart KKKK of Part 60-Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines

Combustion turbine type	Combustion turbine heat input at peak load (HHV)	NOx emission standard
New turbine firing natural gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	25 ppm at 15 percent O ₂ or 150 ng/J of useful output (1.2 lb/MWh)

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E.U. ID No.	Brief Description
-020	Drops from limestone handling conveyors LE, LF, and LG and silo C belt feeder with baghouse
-021	Limestone silo C with one baghouse

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: October 17, 2000

Rule Effective Date: June 21, 2002

Standardized Conditions Revision Date: July 1, 2008

40 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 51 FR 31337, Aug. 1, 1985, unless otherwise noted.

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- § 60.676 Reporting and recordkeeping.

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§ 60.670 Applicability and designation of affected facility.

(a)

- (1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.
- (2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; and stand-alone screening operations at plants without crushers or grinding mills.

(b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

- (1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;
- (2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and
- (3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)

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- (1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.
 - (2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).
 - (3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.
- (e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.
- (f) Table I of this subpart specifies the provisions of subpart A of this part 60 that apply and those that do not apply to owners and operators of affected facilities subject to this subpart.

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Table 1—Applicability of Subpart A to Subpart 000

Subpart A reference	Applies to Subpart 000	Comment
60.1, Applicability	Yes	
60.2, Definitions	Yes	
60.3, Units and abbreviations	Yes	
60.4, Address:		
(a)	Yes	
(b)	Yes	
60.5, Determination of construction or modification	Yes	
60.6, Review of plans	Yes	
60.7, Notification and recordkeeping	Yes	Except in (a)(2) report of anticipated date of initial startup is not required (§60.676(h)).
60.8, Performance tests	Yes	Except in (d), after 30 days notice for an initially scheduled performance test, any rescheduled performance test requires 7 days notice, not 30 days (§60.675(g)).
60.9, Availability of information	Yes	
60.10, State authority	Yes	
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (§60.675(h)).
60.12, Circumvention	Yes	
60.13, Monitoring requirements	Yes	
60.14, Modification	Yes	
60.15, Reconstruction	Yes	
60.16, Priority list	Yes	
60.17, Incorporations by reference	Yes	

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60.18, General control device	No	Flares will not be used to comply with the emission limits.
60.19, General notification and reporting requirements	Yes	

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

- (a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.
- (b) Sand and Gravel.
- (c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

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- (d) Rock Salt.
- (e) Gypsum.
- (f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.
- (g) Pumice.
- (h) Gilsonite.
- (i) Talc and Pyrophyllite.
- (j) Boron, including Borax, Kernite, and Colemanite.
- (k) Barite.
- (l) Fluorospar.
- (m) Feldspar.
- (n) Diatomite.
- (o) Perlite.
- (p) Vermiculite.
- (q) Mica.
- (r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

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Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.672 Standard for particulate matter.

- (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 transfer point on belt conveyors or from any other affected facility any stack emissions which:
- (1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and
 - (2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of §60.676 (c), (d), and (e).
- (b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of this section.
- (c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.
- (d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
- (e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:
- (1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in §60.671.
 - (2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.
- (f) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.
- (g) Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph (a)(1) and (a)(2) of this section.
- (h) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:

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- (1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.
- (2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

§ 60.673 Reconstruction.

- (a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.
- (b) Under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

- (a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.
- (b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

§ 60.675 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 (e) of this section.
- (b) The owner or operator shall determine compliance with the particulate matter standards in §60.672(a) as follows:
 - (1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.
 - (2) Method 9 and the procedures in §60.11 shall be used to determine opacity.
- (c)
 - (1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:
 - (i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
 - (ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
 - (iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be

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considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

- (2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).
- (3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
 - (i) There are no individual readings greater than 10 percent opacity; and
 - (ii) There are no more than 3 readings of 10 percent for the 1-hour period.
- (4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
 - (i) There are no individual readings greater than 15 percent opacity; and
 - (ii) There are no more than 3 readings of 15 percent for the 1-hour period.
- (d) In determining compliance with §60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.
- (e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
 - (1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
 - (i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
 - (ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.
- (f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a) and (b) during each particulate matter run and shall determine the averages.
- (g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.
- (h) Initial Method 9 performance tests under §60.11 of this part and §60.675 of this subpart are not required for:
 - (1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.
 - (2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[54 FR 6680, Feb. 14, 1989, as amended at 62 FR 31360, June 9, 1997]

§ 60.676 Reporting and recordkeeping.

- (a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

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- (1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:
 - (i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and
 - (ii) The rated capacity in tons per hour of the replacement equipment.
- (2) For a screening operation:
 - (i) The total surface area of the top screen of the existing screening operation being replaced and
 - (ii) The total surface area of the top screen of the replacement screening operation.
- (3) For a conveyor belt:
 - (i) The width of the existing belt being replaced and
 - (ii) The width of the replacement conveyor belt.
- (4) For a storage bin:
 - (i) The rated capacity in megagrams or tons of the existing storage bin being replaced and
 - (ii) The rated capacity in megagrams or tons of replacement storage bins.
- (b) [Reserved]
- (c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.
- (d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ± 30 percent from the averaged determined during the most recent performance test.
- (e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.
- (f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(e).
- (g) The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to §60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in §60.672(b) and the emission test requirements of §60.11 and this subpart. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in §60.672(h).
- (h) The subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.
- (i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.
 - (1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.
 - (2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.
- (j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance

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surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

[51 FR 31337, Aug. 1, 1985, as amended at 54 FR 6680, Feb. 14, 1989; 62 FR 31360, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

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E.U. ID No.	Brief Description
-035	Surface Coating of Ships
-043	Diesel Emergency Black Start Generator, 800 kW
-044	Coal Field Diesel Generator

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: May 16, 2007

State Rule Effective Date: October 1, 2007

Standardized Conditions Revision Date: January 29, 2008

40 CFR Part 63, Subpart A - General Provisions

Source: 59 FR 12430, Mar. 16, 1994, unless otherwise noted.

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§ 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

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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 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.

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- (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 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.

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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
- (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.

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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.

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;

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- (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.

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,

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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.

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.

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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:

- (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;

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- (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) 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.

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.

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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

m³ = cubic meter

mg = milligram = 10⁻³gram

ml = milliliter = 10⁻³liter

mm = millimeter = 10⁻³meter

Mg = megagram = 10⁶ gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10⁻⁹gram

nm = nanometer = 10⁻⁹meter

Pa = pascal

s = second

V = volt

W = watt

Ω = ohm

μg = microgram = 10⁻⁶gram

μl = microliter = 10⁻⁶liter

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(b) *Other units of measure:*

Btu = British thermal unit

°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

°F degree Fahrenheit

ft = feet

ft² = square feet

ft³ = cubic feet

gal = gallon

gr = grain

g-eq = gram equivalent

g-mole = gram mole

hr = hour

in. = inch

in. H₂O = 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

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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

yd² = 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]

(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—

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- (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.

(c) [Reserved]

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- (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.

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- (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—
- (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.

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- (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.
- (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

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- (ii) The President 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 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

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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 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

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- (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 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

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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.

- (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.

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- (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).
 - (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.

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(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]
- (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

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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.
- (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

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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 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).

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- (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.
- (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:

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- (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.
- (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

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- 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.
- (13)
- (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:

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- (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).

(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.

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- (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.*

- (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 external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include 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.
 - (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.

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(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 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.

(4)

- (i) *Performance test method audit program.* The owner or operator must analyze performance audit (PA) samples during each performance test. The owner or operator must request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be obtained by contacting the appropriate EPA Regional Office or the responsible enforcement authority.
- (ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.
- (iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

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- (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 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.

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- (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.*
- (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

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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.

[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]

§ 63.8 Monitoring requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in §63.1(a)(4).

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- (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.
 - (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).

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- (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.
 - (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

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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 include the evaluation program objectives, an evaluation program summary, the performance evaluation

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- 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.*

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- (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 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) Alternative 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

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- 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 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

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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 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 O₂ 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).

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- (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 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:

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- (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:
- (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

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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 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.

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- (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.
- (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

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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.

- (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 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)

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- (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);
- (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;

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- (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.
- (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

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§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.
- (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

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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.

(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.

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- (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 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;

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- (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 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.

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- (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 requirements.

(a) *Applicability.* The applicability of this section is set out in §63.1(a)(4).

(b) *Flares.*

- (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:

$$V_{max} = (X_{H_2} - K_1) * K_2$$

Where:

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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_{H_2} = 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 MJ/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=

$$1.740 \times 10^{-7} \left(\frac{1}{ppmv} \right) \left(\frac{\text{g-mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

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:

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$$\text{Log}_{10}(V_{\text{max}})=(H_T+28.8)/31.7$$

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:

$$V_{\text{max}}=8.71 = 0.708(H_T)$$

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.

[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]

§ 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)
- (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.

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- (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 Division, 999 18th Street, 1 Denver Place, Suite 500, Denver, CO 80202-2405.

EPA Region IX (Arizona, California, Hawaii, Nevada, American Samoa, Guam), Director, Air and Toxics 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.
- (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]

§ 63.14 Incorporations by reference.

- (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.
- (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.

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- (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.
- (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).

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- (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,¹ IBR approved for §63.9307(c)(2), Table 4 of Subpart ZZZZ, and Table 5 to Subpart DDDDD of this part.
- (28) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry. IBR approved for §§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),¹ IBR approved for Table 5 to Subpart DDDDD of this part.
- (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 D388-99,¹ Standard Classification of Coals by Rank,¹ IBR approved for §63.7575.
- (40) ASTM D396-02a, Standard Specification for Fuel Oils,¹ IBR approved for §63.7575.
- (41) ASTM D1835-03a, Standard Specification for Liquefied Petroleum (LP) Gases,¹ IBR approved for §63.7575.
- (42) ASTM D2013-01, Standard Practice for Preparing Coal Samples for Analysis,¹ IBR approved for Table 6 to Subpart DDDDD of this part.
- (43) ASTM D2234-00,¹ Standard Practice for Collection of a Gross Sample of Coal,¹ IBR approved for Table 6 to Subpart DDDDD of this part.

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- (44) ASTM D3173-02, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke,¹ 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,¹ 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,¹ 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,¹ 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,¹ 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,¹ 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,¹ 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,¹ 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,¹ 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,¹ 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 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.
 - (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.
- (c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.

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- (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 materials listed below are available at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC.
- (1) *California Regulatory Requirements Applicable to the Air Toxics Program*, January 5, 1999, 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.
 - (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 Regulations Applicable to Hazardous Air Pollutants (July 2002). Incorporation By Reference approved for §63.99(a)(21)(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.
- (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.

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- (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).
 - (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).

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- (7) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, 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],” 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), and Table 5 of subpart DDDDD 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).
- (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 and in Update III, 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 and in Update IIIA, IBR approved for §63.7824(e) of Subpart FFFFF of this part.
- (iii) Method 9095A, “Paint Filter Liquids Test,” dated December 1996 and in Update III, IBR approved for §§63.7700(b) and 63.7765 of Subpart EEEEE of this part.
- (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 on GPO Access.

§ 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.

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(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.
- (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).

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- (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]

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NATIONAL EMISSION STANDARDS FOR HAZARDOUS EMISSIONS FROM SHIPBUILDING AND SHIP REPAIR
(SURFACE COATING)
(version dated 06/26/2003)

E.U. ID No.	Brief Description
-035	Surface Coating of Ships

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.

Standardized Conditions Date: June 26, 2003

40 CFR 63 Subpart II - National Emission Standards for Hazardous Emissions from Shipbuilding and Ship Repair (Surface Coating)

Index

- § 63.780 Relationship of subpart II to subpart A of this part.
- § 63.781 Applicability.
- § 63.782 Definitions.
- § 63.783 Standards.
- § 63.784 Compliance dates.
- § 63.785 Compliance procedures.
- § 63.786 Test methods and procedures.
- § 63.787 Notification requirements.
- § 63.788 Recordkeeping and reporting requirements.
- § 63.789 Implementation and enforcement.

End of Index

§ 63.780 Relationship of subpart II to subpart A of this part.

Table 1 of this subpart specifies the provisions of subpart A of this part that apply to owners and operators of sources subject to the provisions of this subpart.

§ 63.781 Applicability.

- (a) The provisions of this subpart apply to shipbuilding and ship repair operations at any facility that is a major source.
- (b) The provisions of this subpart do not apply to coatings used in volumes of less than 200 liters (52.8 gallons) per year, provided the total volume of coating exempt under this paragraph does not exceed 1,000 liters per year (264 gallons per year) at any facility. Coatings exempt under this paragraph shall be clearly labeled as "low-usage exempt," and the volume of each such coating applied shall be maintained in the facility's records.
- (c) The provisions of this subpart do not apply to coatings applied with hand-held, nonrefillable, aerosol containers or to unsaturated polyester resin (i.e., fiberglass lay-up) coatings. Coatings applied to suitably prepared fiberglass surfaces for protective or decorative purposes are subject to this subpart.
- (d) The provisions in subpart A of this part pertaining to startups, shutdowns, and malfunctions and continuous monitoring do not apply to this source category unless an add-on control system is used to comply with this subpart in accordance with § 63.783(c).

§ 63.782 Definitions.

Terms used in this subpart are defined in the Clean Air Act (CAA), in subpart A of part 63, or in this section as follows:

Add-on control system means an air pollution control device such as a carbon absorber or incinerator that reduces pollution in an air stream by destruction or removal prior to discharge to the atmosphere.

Affected source means any shipbuilding or ship repair facility having surface coating operations with a minimum 1,000 liters (L) (264 gallons [gal]) annual marine coating usage that is subject to this subpart.

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Air flask specialty coating means any special composition coating applied to interior surfaces of high pressure breathing air flasks to provide corrosion resistance and that is certified safe for use with breathing air supplies.

Antenna specialty coating means any coating applied to equipment through which electromagnetic signals must pass for reception or transmission.

Antifoulant specialty coating means any coating that is applied to the underwater portion of a vessel to prevent or reduce the attachment of biological organisms and that is registered with the EPA as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act.

As applied means the condition of a coating at the time of application to the substrate, including any thinning solvent.

As supplied means the condition of a coating before any thinning, as sold and delivered by the coating manufacturer to the user.

Batch means the product of an individual production run of a coating manufacturer's process. A batch may vary in composition from other batches of the same product.

Bitumens mean black or brown materials that are soluble in carbon disulfide and consist mainly of hydrocarbons.

Bituminous resin coating means any coating that incorporates bitumens as a principal component and is formulated primarily to be applied to a substrate or surface to resist ultraviolet radiation and/or water.

Certify means, in reference to the volatile organic compounds (VOC) content or volatile organic hazardous air pollutants (VOHAP) content of a coating, to attest to the VOC content as determined through analysis by Method 24 of appendix A to 40 CFR part 60 or through use of forms and procedures outlined in appendix A of this subpart, or to attest to the VOHAP content as determined through an Administrator-approved test method. In the case of conflicting results, Method 24 of Appendix A to 40 CFR part 60 shall take precedence over the forms and procedures outlined in appendix A to this subpart for the options in which VOC is used as a surrogate for VOHAP.

Coating means any material that can be applied as a thin layer to a substrate and which cures to form a continuous solid film.

Cold-weather time period means any time during which the ambient temperature is below 4.5 °C (40 °F) and coating is to be applied.

Container of coating means the container from which the coating is applied, including but not limited to a bucket or pot.

Cure volatiles means reaction products which are emitted during the chemical reaction which takes place in some coating films at the cure temperature. These emissions are other than those from the solvents in the coating and may, in some cases, comprise a significant portion of total VOC and/or VOHAP emissions.

Epoxy means any thermoset coating formed by reaction of an epoxy resin (i.e., a resin containing a reactive epoxide with a curing agent).

Exempt compounds means specified organic compounds that are not considered VOC due to negligible photochemical reactivity. Exempt compounds are specified in 40 CFR 51.100(s).

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

General use coating means any coating that is not a specialty coating.

Hazardous air pollutants (HAP) means any air pollutant listed in or pursuant to section 112(b) of the CAA.

Heat resistant specialty coating means any coating that during normal use must withstand a temperature of at least 204 °C (400 °F).

High-gloss specialty coating means any coating that achieves at least 85 percent reflectance on a 60 degree meter when tested by ASTM D523-89 (incorporation by reference -- see § 63.14).

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High-temperature specialty coating means any coating that during normal use must withstand a temperature of at least 426 °C (800 °F).

Inorganic zinc (high-build) specialty coating means a coating that contains 960 grams per liter (8 pounds per gallon) or more elemental zinc incorporated into an inorganic silicate binder that is applied to steel to provide galvanic corrosion resistance. (These coatings are typically applied at more than 2 mil dry film thickness.)

Major source means any source that emits or has the potential to emit, in the aggregate, 9.1 megagrams per year (10 tons per year) or more of any HAP or 22.7 megagrams per year (25 tons per year) or more of any combination of HAP.

Maximum allowable thinning ratio means the maximum volume of thinner that can be added per volume of coating without violating the standards of § 63.783(a), as determined using Equation 1 of this subpart.

Military exterior specialty coating or Chemical Agent Resistant Coatings ("CARC") means any exterior topcoat applied to military or U.S. Coast Guard vessels that are subject to specific chemical, biological, and radiological washdown requirements.

Mist specialty coating means any low viscosity, thin film, epoxy coating applied to an inorganic zinc primer that penetrates the porous zinc primer and allows the occluded air to escape through the paint film prior to curing.

Navigational aids specialty coating means any coating applied to Coast Guard buoys or other Coast Guard waterway markers when they are recoated aboard ship at their usage site and immediately returned to the water.

Nonskid specialty coating means any coating applied to the horizontal surfaces of a marine vessel for the specific purpose of providing slip resistance for personnel, vehicles, or aircraft.

Nonvolatiles (or volume solids) means substances that do not evaporate readily. This term refers to the film-forming material of a coating.

Normally closed means a container or piping system is closed unless an operator is actively engaged in adding or removing material.

Nuclear specialty coating means any protective coating used to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusion by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure (ASTM D4082-89 [incorporation by reference -- see § 63.14]), relatively easy to decontaminate (ASTM D4256-89 or 94 [reapproved 1994] [incorporation by reference -- see § 63.14]), and resistant to various chemicals to which the coatings are likely to be exposed (ASTM D3912-80 [incorporation by reference -- see § 63.14]). [For nuclear coatings, see the general protective requirements outlined by the U.S. Nuclear Regulatory Commission in a report entitled "U.S. Atomic Energy Commission Regulatory Guide 1.54" dated June 1973, available through the Government Printing Office at (202) 512-2249 as document number A74062-00001.]

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limitation or standard.

Organic zinc specialty coating means any coating derived from zinc dust incorporated into an organic binder that contains more than 960 grams of elemental zinc per liter (8 pounds per gallon) of coating, as applied, and that is used for the expressed purpose of corrosion protection.

Pleasure craft means any marine or fresh-water vessel used by individuals for noncommercial, nonmilitary, and recreational purposes that is less than 20 meters in length. A vessel rented exclusively to or chartered by individuals for such purposes shall be considered a pleasure craft.

Pretreatment wash primer specialty coating means any coating that contains a minimum of 0.5 percent acid, by mass, and is applied only to bare metal to etch the surface and enhance adhesion of subsequent coatings.

Repair and maintenance of thermoplastic coating of commercial vessels (specialty coating) means any vinyl, chlorinated rubber, or bituminous resin coating that is applied over the same type of existing coating to

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perform the partial recoating of any in-use commercial vessel. (This definition does not include coal tar epoxy coatings, which are considered "general use" coatings.)

Rubber camouflage specialty coating means any specially formulated epoxy coating used as a camouflage topcoat for exterior submarine hulls and sonar domes.

Sealant for thermal spray aluminum means any epoxy coating applied to thermal spray aluminum surfaces at a maximum thickness of 1 dry mil.

Ship means any marine or fresh-water vessel used for military or commercial operations, including self-propelled vessels, those propelled by other craft (barges), and navigational aids (buoys). This definition includes, but is not limited to, all military and Coast Guard vessels, commercial cargo and passenger (cruise) ships, ferries, barges, tankers, container ships, patrol and pilot boats, and dredges. For purposes of this subpart, pleasure crafts and offshore oil and gas drilling platforms are not considered ships.

Shipbuilding and ship repair operations means any building, repair, repainting, converting, or alteration of ships.

Special marking specialty coating means any coating that is used for safety or identification applications, such as markings on flight decks and ships' numbers.

Specialty coating means any coating that is manufactured and used for one of the specialized applications described within this list of definitions.

Specialty interior coating means any coating used on interior surfaces aboard U.S. military vessels pursuant to a coating specification that requires the coating to meet specified fire retardant and low toxicity requirements, in addition to the other applicable military physical and performance requirements.

Tack specialty coating means any thin film epoxy coating applied at a maximum thickness of 2 dry mils to prepare an epoxy coating that has dried beyond the time limit specified by the manufacturer for the application of the next coat.

Thinner means a liquid that is used to reduce the viscosity of a coating and that evaporates before or during the cure of a film.

Thinning ratio means the volumetric ratio of thinner to coating, as supplied.

Thinning solvent: see Thinner.

Undersea weapons systems specialty coating means any coating applied to any component of a weapons system intended to be launched or fired from under the sea.

Volatile organic compounds (VOC) is as defined in § 51.100(s) of this chapter.

Volatile organic hazardous air pollutants (VOHAP) means any compound listed in or pursuant to section 112(b) of the CAA that contains carbon, excluding metallic carbides and carbonates. This definition includes VOC listed as HAP and exempt compounds listed as HAP.

Weld-through preconstruction primer (specialty coating) means a coating that provides corrosion protection for steel during inventory, is typically applied at less than 1 mil dry film thickness, does not require removal prior to welding, is temperature resistant (burn back from a weld is less than 1.25 centimeters [0.5 inch]), and does not normally require removal before applying film-building coatings, including inorganic zinc high-build coatings. When constructing new vessels, there may be a need to remove areas of weld-through preconstruction primer due to surface damage or contamination prior to application of film-building coatings.

§ 63.783 Standards.

(a) No owner or operator of any existing or new affected source shall cause or allow the application of any coating to a ship with an as-applied VOHAP content exceeding the applicable limit given in Table 2 of this subpart, as determined by the procedures described in § 63.785 (c)(1) through (c)(4). For the compliance procedures described in § 63.785 (c)(1) through (c)(3), VOC shall be used as a surrogate for VOHAP, and Method 24 of Appendix A to 40 CFR part 60 shall be used as the definitive measure for determining compliance. For the compliance procedure described in § 63.785(c)(4), an alternative test method capable of measuring independent

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VOHAP shall be used to determine compliance. The method must be submitted to and approved by the Administrator.

(b) Each owner or operator of a new or existing affected source shall ensure that:

(1) All handling and transfer of VOHAP-containing materials to and from containers, tanks, vats, drums, and piping systems is conducted in a manner that minimizes spills.

(2) All containers, tanks, vats, drums, and piping systems are free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.

(c) *Approval of alternative means of limiting emissions.*

(1) The owner or operator of an affected source may apply to the Administrator for permission to use an alternative means (such as an add-on control system) of limiting emissions from coating operations. The application must include:

(i) An engineering material balance evaluation that provides a comparison of the emissions that would be achieved using the alternative means to those that would result from using coatings that comply with the limits in Table 2 of this subpart, or the results from an emission test that accurately measures the capture efficiency and control device efficiency achieved by the control system and the composition of the associated coatings so that the emissions comparison can be made;

(ii) A proposed monitoring protocol that includes operating parameter values to be monitored for compliance and an explanation of how the operating parameter values will be established through a performance test; and

(iii) Details of appropriate recordkeeping and reporting procedures.

(2) The Administrator shall approve the alternative means of limiting emissions if, in the Administrator's judgment, postcontrol emissions of VOHAP per volume applied solids will be no greater than those from the use of coatings that comply with the limits in Table 2 of this subpart.

(3) The Administrator may condition approval on operation, maintenance, and monitoring requirements to ensure that emissions from the source are no greater than those that would otherwise result from this subpart.

§ 63.784 Compliance dates.

(a) Each owner or operator of an existing affected source shall comply within two years after the effective date of this subpart.

(b) Each owner or operator of an existing unaffected area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply within 1 year after the date of becoming a major source.

(c) Each owner or operator of a new or reconstructed source shall comply with this subpart according to the schedule in § 63.6(b).

§ 63.785 Compliance procedures.

(a) For each batch of coating that is received by an affected source, the owner or operator shall (see Figure 1 of this section for a flow diagram of the compliance procedures):

(1) Determine the coating category and the applicable VOHAP limit as specified in § 63.783(a).

(2) Certify the as-supplied VOC content of the batch of coating. The owner or operator may use a certification supplied by the manufacturer for the batch, although the owner or operator retains liability should subsequent testing reveal a violation. If the owner or operator performs the certification testing, only one of the containers in which the batch of coating was received is required to be tested.

(b)

(1) In lieu of testing each batch of coating, as applied, the owner or operator may determine compliance with the VOHAP limits using any combination of the procedures described in paragraphs (c)(1), (c)(2), (c)(3), and

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(c)(4) of this section. The procedure used for each coating shall be determined and documented prior to application.

(2) The results of any compliance demonstration conducted by the affected source or any regulatory agency using Method 24 shall take precedence over the results using the procedures in paragraphs (c)(1), (c)(2), or (c)(3) of this section.

(3) The results of any compliance demonstration conducted by the affected source or any regulatory agency using an approved test method to determine VOHAP content shall take precedence over the results using the procedures in paragraph (c)(4) of this section.

(c)

(1) *Coatings to which thinning solvent will not be added.* For coatings to which thinning solvent (or any other material) will not be added under any circumstance or to which only water is added, the owner or operator of an affected source shall comply as follows:

(i) Certify the as-applied VOC content of each batch of coating.

(ii) Notify the persons responsible for applying the coating that no thinning solvent may be added to the coating by affixing a label to each container of coating in the batch or through another means described in the implementation plan required in § 63.787(b).

(iii) If the certified as-applied VOC content of each batch of coating used during a calendar month is less than or equal to the applicable VOHAP limit in § 63.783(a) (either in terms of g/L of coating or g/L of solids), then compliance is demonstrated for that calendar month, unless a violation is revealed using Method 24 of Appendix A to 40 CFR part 60.

(2) *Coatings to which thinning solvent will be added -- coating-by-coating compliance.* For a coating to which thinning solvent is routinely or sometimes added, the owner or operator shall comply as follows:

(i) Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch as follows:

$$R = \frac{(V_s)(\text{VOHAP limit}) - m_{\text{VOC}}}{D_{\text{th}}} \quad \text{Eqn. 1}$$

where:

R=Maximum allowable thinning ratio for a given batch (L thinner/L coating as supplied);

Vs=Volume fraction of solids in the batch as supplied (L solids/L coating as supplied);

VOHAP limit=Maximum allowable as-applied VOHAP content of the coating (g VOHAP/L solids);

mVOC=VOC content of the batch as supplied [g VOC (including cure volatiles and exempt compounds on the HAP list)/L coating (including water and exempt compounds) as supplied];

Dth=Density of the thinner (g/L).

If Vs is not supplied directly by the coating manufacturer, the owner or operator shall determine Vs as follows:

$$V_s = 1 - \frac{m_{\text{volatiles}}}{D_{\text{avg}}} \quad \text{Eqn. 2}$$

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where:

$m_{volatiles}$ =Total volatiles in the batch, including VOC, water, and exempt compounds (g/L coating); and
 D_{avg} =Average density of volatiles in the batch (g/L).

The procedures specified in § 63.786(d) may be used to determine the values of variables defined in this paragraph. In addition, the owner or operator may choose to construct nomographs, based on Equation 1 of this subpart, similar or identical to the one provided in appendix B of this subpart as a means of easily estimating the maximum allowable thinning ratio.

(ii) Prior to the first application of each batch, notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch of the coating by affixing a label to each container of coating or through another means described in the implementation plan required in § 63.787(b).

(iii) By the 15th day of each calendar month, determine the volume of each batch of the coating used, as supplied, during the previous month.

(iv) By the 15th day of each calendar month, determine the total allowable volume of thinner for the coating used during the previous month as follows:

$$V_{th} = \sum_{i=1}^n (R \times V_b)_i + \sum_{i=1}^n (R_{cold} \times V_{b-cold})_i \quad \text{Eqn. 3}$$

where:

V_{th} =Total allowable volume of thinner for the previous month (L thinner);

V_b =Volume of each batch, as supplied and before being thinned, used during non-cold-weather days of the previous month (L coating as supplied);

R_{cold} =Maximum allowable thinning ratio for each batch used during cold-weather days (L thinner/L coating as supplied);

V_{b-cold} =Volume of each batch, as supplied and before being thinned, used during cold-weather days of the previous month (L coating as supplied);

i =Each batch of coating; and

n =Total number of batches of the coating.

(v) By the 15th day of each calendar month, determine the volume of thinner actually used with the coating during the previous month.

(vi) If the volume of thinner actually used with the coating [paragraph (c)(3)(v) of this section] is less than or equal to the total allowable volume of thinner for the coating [paragraph (c)(3)(iv) of this section], then compliance is demonstrated for the coating for the previous month, unless a violation is revealed using Method 24 of Appendix A to 40 CFR part 60.

(3) *Coatings to which the same thinning solvent will be added -- group compliance.* For coatings to which the same thinning solvent (or other material) is routinely or sometimes added, the owner or operator shall comply as follows:

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(i) Designate a single thinner to be added to each coating during the month and "group" coatings according to their designated thinner.

(ii) Prior to the first application of each batch, calculate the maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch of coating in the group using the equations in paragraph (c)(2) of this section.

(iii) Prior to the first application of each "batch," notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch in the group by affixing a label to each container of coating or through another means described in the implementation plan required in § 63.787(b).

(iv) By the 15th day of each calendar month, determine the volume of each batch of the group used, as supplied, during the previous month.

(v) By the 15th day of each calendar month, determine the total allowable volume of thinner for the group for the previous month using Equation 3 of this subpart.

(vi) By the 15th day of each calendar month, determine the volume of thinner actually used with the group during the previous month.

(vii) If the volume of thinner actually used with the group [paragraph (c)(3)(vi) of this section] is less than or equal to the total allowable volume of thinner for the group [paragraph (c)(3)(v) of this section], then compliance is demonstrated for the group for the previous month, unless a violation is revealed using Method 24 of Appendix A to 40 CFR part 60.

(4) *Demonstration of compliance through an alternative (i.e., other than Method 24 of Appendix A to 40 CFR part 60) test method.* The owner or operator shall comply as follows:

(i) Certify the as-supplied VOHAP content (g VOHAP/L solids) of each batch of coating.

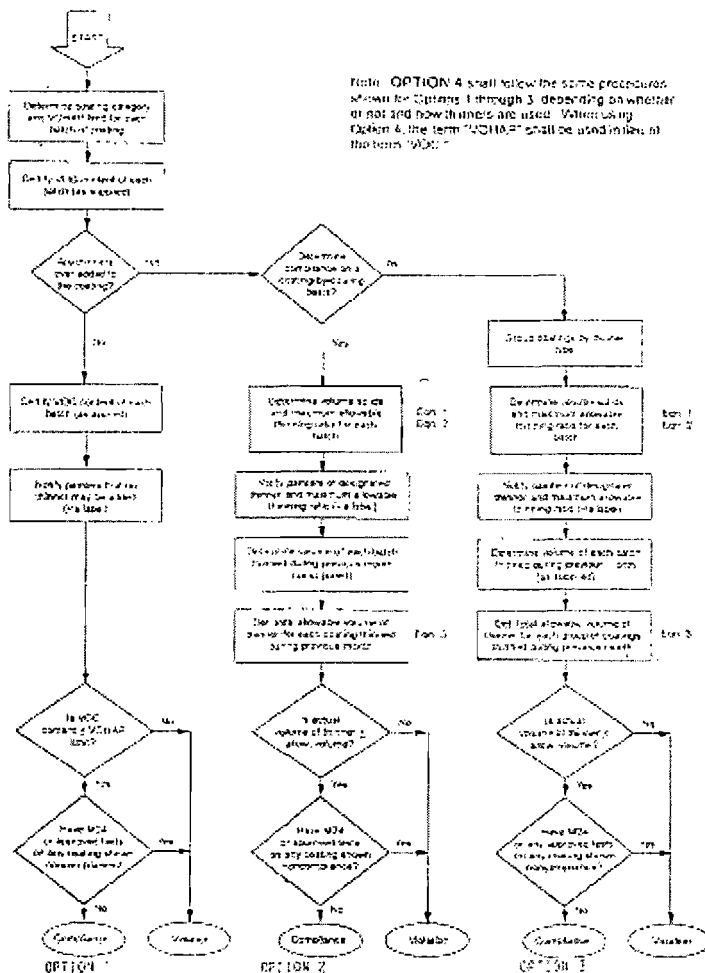
(ii) If no thinning solvent will be added to the coating, the owner or operator of an affected source shall follow the procedure described in § 63.785(c)(1), except that VOHAP content shall be used in lieu of VOC content.

(iii) If thinning solvent will be added to the coating, the owner or operator of an affected source shall follow the procedure described in § 63.785(c)(2) or (3), except that in Equation 1 of this subpart: the term "mVOC" shall be replaced by the term "mVOHAP," defined as the VOHAP content of the coating as supplied (g VOHAP/L coating) and the term "Dth" shall be replaced by the term "Dth(VOHAP)" defined as the average density of the VOHAP thinner(s) (g/L).

(d) A violation revealed through any approved test method shall result in a 1-day violation for enforcement purposes. A violation revealed through the recordkeeping procedures described in paragraphs (c)(1) through (c)(4) of this section shall result in a 30-day violation for enforcement purposes, unless the owner or operator provides sufficient data to demonstrate the specific days during which noncompliant coatings were applied.

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Figure 1 to § 63.785 Flow diagram of compliance procedures



§ 63.786 Test methods and procedures.

(a) For the compliance procedures described in § 63.785(c) (1) through (c)(3), Method 24 of 40 CFR part 60, appendix A, is the definitive method for determining the VOC content of coatings, as supplied or as applied. When a coating or thinner contains exempt compounds that are volatile HAP or VOHAP, the owner or operator shall ensure, when determining the VOC content of a coating, that the mass of these exempt compounds is included.

(b) For the compliance procedure described in § 63.785(c)(4), the Administrator must approve the test method for determining the VOHAP content of coatings and thinners. As part of the approval, the test method must meet the specified accuracy limits indicated below for sensitivity, duplicates, repeatability, and reproducibility coefficient of variation each determined at the 95 percent confidence limit. Each percentage value below is the corresponding coefficient of variation multiplied by 2.8 as in the ASTM Method E180-93: Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals (incorporation by reference -- see § 63.14).

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- (1) *Sensitivity*. The overall sensitivity must be sufficient to identify and calculate at least one mass percent of the compounds of interest based on the original sample. The sensitivity is defined as ten times the noise level as specified in ASTM Method D3257-93: Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography (incorporation by reference -- see § 63.14). In determining the sensitivity, the level of sample dilution must be factored in.
- (2) *Repeatability*. First, at the 0.1-5 percent analyte range the results would be suspect if duplicates vary by more than 6 percent relative and/or day to day variation of mean duplicates by the same analyst exceeds 10 percent relative. Second, at greater than 5 percent analyte range the results would be suspect if duplicates vary by more than 5 percent relative and/or day to day variation of duplicates by the same analyst exceeds 5 percent relative.
- (3) *Reproducibility*. First, at the 0.1-5 percent analyte range the results would be suspect if lab to lab variation exceeds 60 percent relative. Second, at greater than 5 percent range the results would be suspect if lab to lab variation exceeds 20 percent relative.
- (4) Any test method should include information on the apparatus, reagents and materials, analytical procedure, procedure for identification and confirmation of the volatile species in the mixture being analyzed, precision and bias, and other details to be reported. The reporting should also include information on quality assurance (QA) auditing.
- (5) Multiple and different analytical techniques must be used for positive identification if the components in a mixture under analysis are not known. In such cases a single column gas chromatograph (GC) may not be adequate. A combination of equipment may be needed such as a GC/mass spectrometer or GC/infrared system. (If a GC method is used, the operator must use practices in ASTM Method E260-91 or 96: Standard Practice for Gas Chromatography [incorporation by reference -- see § 63.14].)
- (c) A coating manufacturer or the owner or operator of an affected source may use batch formulation data as a test method in lieu of Method 24 of Appendix A to 40 CFR part 60 to certify the as-supplied VOC content of a coating if the manufacturer or the owner or operator has determined that batch formulation data have a consistent and quantitatively known relationship to Method 24 results. This determination shall consider the role of cure volatiles, which may cause emissions to exceed an amount based solely upon coating formulation data. Notwithstanding such determination, in the event of conflicting results, Method 24 of appendix A of 40 CFR part 60 shall take precedence.
- (d) Each owner or operator of an affected source shall use or ensure that the manufacturer uses the form and procedures mentioned in appendix A of this subpart to determine values for the thinner and coating parameters used in Equations 1 and 2 of this subpart. The owner or operator shall ensure that the coating/thinner manufacturer (or supplier) provides information on the VOC and VOHAP contents of the coatings/thinners and the procedure(s) used to determine these values.

§ 63.787 Notification requirements.

- (a) Each owner or operator of an affected source shall comply with all applicable notification requirements in § 63.9(a) through (d) and (i) through (j), with the exception that the deadline specified in § 63.9(b) (2) and (3) shall be extended from 120 days to 180 days. Any owner or operator that receives approval pursuant to § 63.783(c) to use an add-on control system to control coating emissions shall comply with the applicable requirements of § 63.9(e) through (h).
- (b) *Implementation plan*. The provisions of § 63.9(a) apply to the requirements of this paragraph.
- (1) Each owner or operator of an affected source shall:
- (i) Prepare a written implementation plan that addresses each of the subject areas specified in paragraph (b)(3) of this section; and
- (ii) Not later than one year after the effective date of this subpart, submit the implementation plan to the Administrator along with the notification required by § 63.9(b)(2) or (b)(5) of subpart A, as applicable.
- (2) [Reserved]

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- (3) *Implementation plan contents.* Each implementation plan shall address the following subject areas:
- (i) *Coating compliance procedures.* The implementation plan shall include the compliance procedure(s) under § 63.785(c) that the source intends to use.
 - (ii) *Recordkeeping procedures.* The implementation plan shall include the procedures for maintaining the records required under § 63.788, including the procedures for gathering the necessary data and making the necessary calculations.
 - (iii) *Transfer, handling, and storage procedures.* The implementation plan shall include the procedures for ensuring compliance with § 63.783(b).
- (4) *Major sources that intend to become area sources by the compliance date.* Existing major sources that intend to become area sources by the December 16, 1997 compliance date may choose to submit, in lieu of the implementation plan required under paragraph (b)(1) of this section, a statement that, by the compliance date, the major source intends to obtain and comply with federally enforceable limits on their potential to emit which make the facility an area source.

§ 63.788 Recordkeeping and reporting requirements.

- (a) Each owner or operator of an affected source shall comply with the applicable recordkeeping and reporting requirements in § 63.10 (a), (b), (d), and (f). Any owner that receives approval pursuant to § 63.783(c) to use an add-on control system to control coating emissions shall also comply with the applicable requirements of § 63.10 (c) and (e). A summary of recordkeeping and reporting requirements is provided in Table 3 of this subpart.
- (b) *Recordkeeping requirements.* (1) Each owner or operator of a major source shipbuilding or ship repair facility having surface coating operations with less than 1000 liters (L) (264 gallons (gal)) annual marine coating usage shall record the total volume of coating applied at the source to ships. Such records shall be compiled monthly and maintained for a minimum of 5 years.
- (2) Each owner or operator of an affected source shall compile records on a monthly basis and maintain those records for a minimum of 5 years. At a minimum, these records shall include:
- (i) All documentation supporting initial notification;
 - (ii) A copy of the affected source's approved implementation plan;
 - (iii) The volume of each low-usage-exempt coating applied;
 - (iv) Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;
 - (v) Certification of the as-supplied VOC content of each batch of coating;
 - (vi) A determination of whether containers meet the standards as described in § 63.783(b)(2); and
 - (vii) The results of any Method 24 of appendix A to 40 CFR part 60 or approved VOHAP measurement test conducted on individual containers of coating, as applied.
- (3) The records required by paragraph (b)(2) of this section shall include additional information, as determined by the compliance procedure(s) described in § 63.785(c) that each affected source followed:
- (i) *Coatings to which thinning solvent will not be added.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(1) shall contain the following information:
 - (A) Certification of the as-applied VOC content of each batch of coating; and
 - (B) The volume of each coating applied.
 - (ii) *Coatings to which thinning solvent will be added -- coating-by-coating compliance.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(2) shall contain the following information:
 - (A) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids (nonvolatiles) in each batch, including any calculations;
 - (B) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch of coating, including calculations;

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- (C) If an affected source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5 °C (40 °F) at the time the coating was applied and the volume used of each batch of the coating, as supplied, during these dates;
- (D) The volume used of each batch of the coating, as supplied;
- (E) The total allowable volume of thinner for each coating, including calculations; and
- (F) The actual volume of thinner used for each coating.
- (iii) *Coatings to which the same thinning solvent will be added -- group compliance.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(3) shall contain the following information:
- (A) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids in each batch, including any calculations;
- (B) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch of coating, including calculations;
- (C) If an affected source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5 °C (40 °F) at the time the coating was applied and the volume used of each batch in the group, as supplied, during these dates;
- (D) Identification of each group of coatings and their designated thinners;
- (E) The volume used of each batch of coating in the group, as supplied;
- (F) The total allowable volume of thinner for the group, including calculations; and
- (G) The actual volume of thinner used for the group.
- (iv) *Demonstration of compliance through an alternative (i.e., non-Method 24 in appendix A to 40 CFR part 60) test method.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(4) shall contain the following information:
- (A) Identification of the Administrator-approved VOHAP test method or certification procedure;
- (B) For coatings to which the affected source does not add thinning solvents, the source shall record the certification of the as-supplied and as-applied VOHAP content of each batch and the volume of each coating applied;
- (C) For coatings to which the affected source adds thinning solvent on a coating-by-coating basis, the source shall record all of the information required to be recorded by paragraph (b)(3)(ii) of this section; and
- (D) For coatings to which the affected source adds thinning solvent on a group basis, the source shall record all of the information required to be recorded by paragraph (b)(3)(iii) of this section.
- (4) If the owner or operator of an affected source detects a violation of the standards specified in § 63.783, the owner or operator shall, for the remainder of the reporting period during which the violation(s) occurred, include the following information in his or her records:
- (i) A summary of the number and duration of deviations during the reporting period, classified by reason, including known causes for which a Federally-approved or promulgated exemption from an emission limitation or standard may apply.
- (ii) Identification of the data availability achieved during the reporting period, including a summary of the number and total duration of incidents that the monitoring protocol failed to perform in accordance with the design of the protocol or produced data that did not meet minimum data accuracy and precision requirements, classified by reason.
- (iii) Identification of the compliance status as of the last day of the reporting period and whether compliance was continuous or intermittent during the reporting period.
- (iv) If, pursuant to paragraph (b)(4)(iii) of this section, the owner or operator identifies any deviation as resulting from a known cause for which no Federally-approved or promulgated exemption from an emission limitation or

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standard applies, the monitoring report shall also include all records that the source is required to maintain that pertain to the periods during which such deviation occurred and:

- (A) The magnitude of each deviation;
 - (B) The reason for each deviation;
 - (C) A description of the corrective action taken for each deviation, including action taken to minimize each deviation and action taken to prevent recurrence; and
 - (D) All quality assurance activities performed on any element of the monitoring protocol.
- (c) *Reporting requirements.* Before the 60th day following completion of each 6-month period after the compliance date specified in § 63.784, each owner or operator of an affected source shall submit a report to the Administrator for each of the previous 6 months. The report shall include all of the information that must be retained pursuant to paragraphs (b) (2) through (3) of this section, except for that information specified in paragraphs (b)(2) (i) through (ii), (b)(2)(v), (b)(3)(i)(A), (b)(3)(ii)(A), and (b)(3)(iii)(A). If a violation at an affected source is detected, the source shall also report the information specified in paragraph (b)(4) of this section for the reporting period during which the violation(s) occurred. To the extent possible, the report shall be organized according to the compliance procedure(s) followed each month by the affected source.

§ 63.789 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. 63.780 through 63.781, and 63.783 through 63.784.
 - (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.

Table 1 To Subpart II of Part 63 -- Reserved

Table 2 to Subpart II of Part 63- Volatile Organic HAP (VOHAP) Limits for Marine Coatings

Coating Category	VOHAP limits ^{abc}	
	Grams/liter coating (minus water and exempt compounds)	Grams/Liter solids^d
	T <gr-thn-eq >4.5 deg. C	T 4.5 deg. C ^e

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General use.....		340	571	728
Specialty:				
Air flask.....		340	571	728
Antenna.....		530	1439	
Antifoulant.....		400	765	971
Heat resistant.....		420	841	1069
High-gloss.....		420	841	1069
High-temperature.....		500	1237	1597
Inorganic zinc high-build...		340	571	728
Military exterior.....		340	571	728
Mist.....		610	2235	
Navigational aids.....		550	1597	
Nonskid.....		340	571	728
Nuclear.....		420	841	1069
Organic zinc.....		360	630	802
Pretreatment wash primer....		780	11095	
Repair and maint.of				
thermoplastics.....	Rubber	550	1597	
camouflage.....	Sealant	340	571	728
for thermal spray				
aluminum.....		610	2235	
Special marking.....		490	1178	
Specialty interior.....		340	571	728
Tack coat.....		610	2235	
Undersea weapons systems....		340	571	728
Weld-through precon. primer.		650	2885	

^a The limits are expressed on two sets of equivalent units. Either set of limits may be used for the compliance procedure described in Sec. 63.785(c)(1), but only the limits expressed in units of g/L solids (nonvolatiles) shall be used for the compliance procedures described in Sec. 63.785(c) (2) through (4).

^b VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP for those compliance procedures described in Sec. 63.785(c) (1) through (3).

^c To convert g/L to lb./gal, multiply by (3.785 L/gal)(1/453.6 lb/g) or 1/120. For compliance purposes, metric units define the standard.

^d VOHAP limits expressed in units of mass of VOHAP per volume of solids were derived from the VOHAP limits expressed in units of mass of VOHAP per volume of coating assuming the coatings contain no water or exempt compounds and that the volume of all components within a coating are additive.

^e These limits apply during cold-weather time periods, as defined in Sec. 63.782. Cold-weather allowances are not given to coatings in categories that permit less than 40 percent volume solids (nonvolatiles). Such coatings are subject to the same limits regardless of weather conditions.

Table 3 to Subpart II of Part 63 -- Summary of Recordkeeping and Reporting Requirements abc

Requirement	All Options		Option 1		Option 2		Option 3	
	Rec.	Rep	Rec	Rep	Rec	Rep	Rec	Rep
Notification (Sec 63.9 (a)- (d).	X	X						
Implementation Plan (Sec. 63. 787(b)) ^d			X	X				
Volume of coating applied at unaffected major sources (Sec. 63.781(b))	X							
Volume of each low-usage-exempt coating applied at affected sources (Sec.63.781(c))	X	X						
ID of the coating used , their appropriate coating categories, and the applicable VOHAP limit	X	X						
Determination of whether containers meet the standards described in Sec. 63. 783(b)(2)	X	X						

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Results of M-24 or other approved tests	X	X						
Certification of the as-supplied VOC content of each batch	X							
Certification of the as-applied VOC content of each batch			X					
Volume of each coating applied			X	X				
Density of each thinner and volume fraction of solids in each batch					X	X		
Maximum allowable thinning ratio(s) for each batch					X	X	X	X
Volume used as batch, as supplied					X	X	X	X
Total allowable volume of thinner					X	X	X	X
Actual volume of thinner used					X	X	X	X
Identification of each group of coatings and designated thinners							X	X

^aAffected sources that comply with the cold-weather limits must record and report additional information, as specified in Sec. 63.788(b)(3) (ii)(C), (iii)(C), and (iv)(D).

^bAffected sources that detect a violation must record and report additional information, as specified in Sec.63.788(b)(4).

^cOPTION 4: the recordkeeping and reporting requirements of Option 4 are identical to those of Options 1, 2, or3, depending on whether and how thinners are used. However, when using Option 4, the term ``VOHAP" shall be used in lieu of the term ``VOC," and the owner or operator shall record and report the Administrator-approved VOHAP test method or certification procedure.

^dMajor sources that intend to become area sources by the compliance date may, in lieu of submitting an implementation plan, choose to submit a statement of intent as specified in Sec. 63.787(b)(4).

Appendix A to Subpart II of Part 63 -- VOC Data Sheet 1

Properties of the Coating "As Supplied" by the Manufacturer 2

Coating Manufacturer: Coating Identification: Batch Identification: Supplied To:

1 Adapted from EPA-340/1-86-016 (July 1986), p. II-2.

2 The subscript "s" denotes each value is for the coating "as supplied" by the manufacturer.

Properties of the coating as supplied 1 to the customer:

A. Coating Density: (Dc)s ___ g/L
 ASTM D1475-90 * Other 3

B. Total Volatiles: (mv)s ___ Mass Percent
 ASTM D2369-93 or 95 * Other 3

C. Water Content: 1. (mw)s ___ Mass Percent

* Incorporation by reference -- see § 63.14.

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3 Explain the other method used under "Remarks."

ASTM D3792-91 * ASTM D4017-81, 90, or 96a * Other 3

2. (vw)s __ Volume Percent

Calculated Other 3

D. Organic Volatiles: (mo)s __ Mass Percent

E. Nonvolatiles: (vn)s __ Volume Percent

Calculated Other 3

F. VOC Content (VOC)s:

1. __ g/L solids (nonvolatiles)

2. __ g/L coating (less water and exempt compounds)

G. Thinner Density: Dth __ g/L

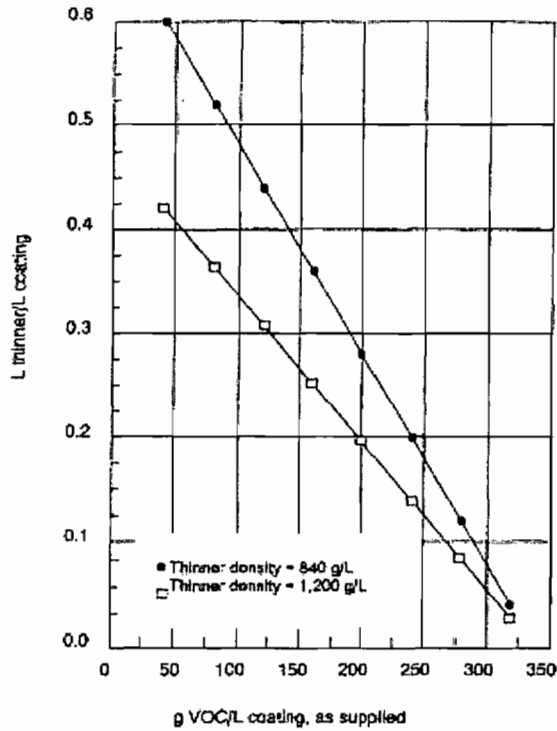
ASTM __ Other 3 Remarks: (use reverse side)

Signed: _____ Date: __

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(version dated 06/26/2003)

Appendix B To Subpart II of Part 63 -- Maximum Allowable Thinning Rates As A Function Of As Supplied VOC Content And Thinner Density^{a,b}



^aThese graphs represent maximum allowable thinning ratios for general use coatings without water or exempt compounds.

^bThe average density of the volatiles in the coating was assumed = 840 g solvent/l. solvent

Appendix C to Subpart II- Applicability of General Provisions to Subpart II
§ 63.1 Applicability.

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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: June 30, 2010

State Rule Effective Date: This version has not yet been adopted by the state

Standardized Conditions Revision Date: August 11, 2010

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(h) 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) A stationary RICE which is an existing spark ignition 4 stroke rich burn (4SRB) stationary RICE located at an area source of HAP emissions; an existing spark ignition 4SRB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions; an existing spark ignition 2 stroke lean burn (2SLB) stationary RICE; an existing spark ignition 4 stroke lean burn (4SLB) stationary RICE; an existing compression

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ignition emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions; an existing spark ignition emergency or limited use stationary RICE; an existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions; an existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; or an existing stationary residential, commercial, or institutional emergency stationary RICE located at an area source of HAP emissions, does not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary.

- (c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that is a new or reconstructed stationary RICE located at an area source, or is a new or reconstructed stationary RICE located at a major source of HAP emissions and is a spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of less than 500 brake HP, a spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of less than 250 brake HP, or a 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP, a stationary RICE with a site rating of less than or equal to 500 brake HP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP, or a compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP, 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.

[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]

§ 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.
- (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.
- (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.

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- (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]

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 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less 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. 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.

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[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary CI 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 CI 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 9675, Mar. 3, 2010]

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI 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 CI 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 2b to this subpart which 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]

§ 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 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 9675, Mar. 3, 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?

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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 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]

§ 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 CI 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 CI 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).

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- (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]

§ 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 (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ 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:

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$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 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^3/J ($\text{dscf}/10^6 \text{ Btu}$).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($\text{dscf}/10^6 \text{ Btu}$).

- (ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{\text{co}_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

X_{co_2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 - 15 percent O_2 , the defined O_2 correction value, percent.

- (iii) Calculate the NO_x and SO_2 gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{\text{adj}} = C_d \frac{X_{\text{co}_2}}{\% \text{CO}_2} \quad (\text{Eq. 4})$$

Where:

$\% \text{CO}_2$ = Measured CO_2 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.
- (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

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- (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 CO₂ 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.
 - (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 CO₂ concentration.

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- (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 §63.8.
- (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 an existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions, an existing stationary emergency RICE, or an existing stationary RICE located at an area source of HAP emissions not subject to any numerical emission standards shown in Table 2d to this subpart, 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.
- (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 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) in 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 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 engine that is subject to the work, operation or management practices in items 1, 2, or 4 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 before continuing to use the engine. 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]

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§ 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, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.
- (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.

§ 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.

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- (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, a new 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 engine according to the conditions described in paragraphs (f)(1) through (4) of this section.
- (1) For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.
 - (2) There is no time limit on the use of emergency stationary RICE in emergency situations.
 - (3) 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.
 - (4) 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)(4), as long as the power provided by the financial arrangement is limited to emergency power.

[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]

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 CI 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 CI 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 CI RICE less than 100 HP, an existing stationary emergency CI RICE, or an existing stationary CI RICE that is not subject to any numerical emission standards.

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- (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).
- (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]

§ 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.

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- (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.
 - (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.

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- (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 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.

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- (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 CI RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
 - (2) An existing stationary emergency CI RICE.
 - (3) An existing stationary CI 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 CI 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 CI 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]

§ 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

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§ 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).

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

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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 of 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 CO₂.

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 ICE 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 ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used for peak shaving are not considered emergency stationary ICE. Stationary CI ICE 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). Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may be operated 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. Emergency stationary RICE with a site-rating of more than 500 brake HP located at a major source of HAP emissions that were installed prior to June 12, 2006, may also operate an additional 50 hours per year in non-emergency situations. All other emergency stationary RICE must comply with the requirements specified in §63.6640(f).

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.

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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.

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 CO₂.

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
- (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_x) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_x, CO, and volatile organic compounds (VOC) into CO₂, 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

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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 C₃H₈.

Residential/commercial/institutional emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or residences, commercial establishments such as office buildings, hotels, or stores, or institutional establishments such as medical centers, research centers, and institutions of higher education.

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_x (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.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine 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.

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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]

Table I 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 for existing, new and reconstructed 4SRB 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. 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. ¹
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂	

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010]

Table I 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

[As stated in §§63.6600, 63.6630 and 63.6640, you must comply with the following operating emission limitations 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 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	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

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For each...	You must meet the following operating limitation...
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 ₂ and using NSCR.	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	Comply with any operating limitations approved by the Administrator.
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 ₂ and not using NSCR.	

[73 FR 3607, Jan. 18, 2008]

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 ₂ . 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 ₂ until June 15, 2007	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. ¹
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 ₂	
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 ₂	

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

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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, Existing Non-Emergency Compression Ignition Stationary RICE >500 HP, and New and Reconstructed 4SLB Burn Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6601, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed lean burn and existing, new and reconstructed compression ignition stationary RICE:

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	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. ¹
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	Comply with any operating limitations approved by the Administrator.

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

[75 FR 9680, Mar. 3, 2010]

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary Rice Located at Major Sources of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency CI and black start CI. ¹	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ² 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. ³	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. ³

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For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
2. Non-Emergency, non-black start CI < 100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; ²	
	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. ³	
3. Non-Emergency, non-black start CI RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O ₂ .	
4. Non-Emergency, non-black start CI 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start CI>500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more.	

¹If 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 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.

²Sources 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.

³Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

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[75 FR 9681, Mar. 3, 2010]

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Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission and operating limitations for existing compression ignition stationary RICE:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI ≤ 300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; ¹	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 300 < HP ≤ 500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more	
3. Non-Emergency, non-black start CI > 500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more	
4. Emergency CI and black start CI. ²	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹	
	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	

¹Sources 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.

²If 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

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has abated. The management practice 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 management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 9681, Mar. 3, 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:

For each . . .	Complying with the requirement to . . .	You must . . .
1. 2SLB and 4SLB stationary RICE with a brake horsepower >500 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. ¹
2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. ¹
3. Stationary RICE with a brake horsepower >500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. ¹
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 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		Conduct subsequent performance tests every 8,760 hrs or 5 years, whichever comes first.

¹After 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 9682, Mar. 3, 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 for existing sources:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Portable CO and O ₂ analyzer.	(a) Using ASTM D6522-00 (2005) ^a (incorporated by reference, see §63.14). Measurements to determine O ₂ must be made at the same time as the measurements

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For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
				for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) Portable CO and O ₂ analyzer.	(a) Using ASTM D6522-00 (2005) ^{a,b} (incorporated by reference, <i>see</i> §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O ₂ 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 ₂ 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 D6522-00 (2005)	(a) Measurements to determine O ₂ 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 of 40 CFR part 63, appendix A; or ASTM D6348-03 ^c , 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 ₂ , 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 ₂ 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 ₂ concentration must be made at the same time and location as the measurements for formaldehyde concentration.

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For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; 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 exhaust of the stationary RICE; or	(1) Method 320 of 40 CFR part 63, appendix A; or ASTM D6348-03 ^c , 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 ₂ , 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) ^a , Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03	(a) CO concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour longer runs.

^aYou 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.

^bYou may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03.

^cYou 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 9682, Mar. 3, 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:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. 2SLB and 4SLB stationary RICE >500 HP located at a major source and new or reconstructed CI stationary RICE >500 HP located at a major source	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

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For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. 2SLB and 4SLB stationary RICE >500 HP located at a major source and new or reconstructed CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions and not using oxidation catalyst	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.
3. 2SLB and 4SLB stationary RICE >500 HP located at a major source and new or reconstructed CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ 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.
4. 4SRB stationary RICE >500 HP located at a major source	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.
5. 4SRB stationary RICE >500 HP located at a major source	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

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For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		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.
6. Stationary RICE >500 HP located at a major source	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , 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 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.
7. Stationary RICE >500 HP located at a major source	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 ₂ , 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.
8. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source	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.
9. Existing stationary non-emergency RICE ≥100 HP located at a major source, existing non-emergency CI stationary RICE >500 HP, and existing stationary non-emergency RICE ≥100 HP located at an area source	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 ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[75 FR 9684, Mar. 3, 2010]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations and Operating Limitations

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As stated in §63.6640, you must continuously comply with the emissions and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. 2SLB and 4SLB stationary RICE >500 HP located at a major source and CI stationary RICE >500 HP located at a major source	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 ^a ; 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.
2. 2SLB and 4SLB stationary RICE >500 HP located at a major source and CI stationary RICE >500 HP located at a major source	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 ^a ; 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. 2SLB and 4SLB stationary RICE >500 HP located at a major source and CI stationary RICE >500 HP located at a major source	a. Reduce CO emissions 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 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; 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 I.
4. 4SRB stationary RICE >500 HP located at a major source	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

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For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		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. 4SRB stationary RICE >500 HP located at a major source	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) 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 operating parameters established during the performance test.
6. 4SRB stationary RICE with a brake HP ≥5,000 located at a major source	Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved. ^a
7. Stationary RICE >500 HP located at a major source	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 ^a ; 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. Stationary RICE >500 HP located at a major source	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 ^a ; 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 stationary CI RICE not subject to any	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and

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For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
numerical emission limitations		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.
10. Existing stationary RICE >500 HP that are not limited use stationary RICE, except 4SRB >500 HP located at major sources	a. Reduce CO or formaldehyde emissions; or b. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	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.
11. Existing limited use stationary RICE >500 HP that are limited use CI stationary RICE	a. Reduce CO or formaldehyde emissions; or b. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	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.

^aAfter 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 9685, Mar. 3, 2010]

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:

You must submit a(n) . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. If there are no deviations from any emission limitations or operating 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	i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary CI 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 CI RICE subject to numerical emission limitations.
	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	i. Semiannually according to the requirements in §63.6650(b).

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You must submit a(n) . . .	The report must contain . . .	You must submit the report . . .
	c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).
2. Report	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	i. Annually, according to the requirements in §63.6650.
	b. The operating limits provided in your Federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
	c. Any problems or errors suspected with the meters	i. See item 2.a.i.

[75 FR 9687, Mar. 3, 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.	
§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]		

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General provisions citation	Subject of citation	Applies to subpart	Explanation
§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 testing under section 114 of the CAA	Yes.	
§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.	

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General provisions citation	Subject of citation	Applies to subpart	Explanation
§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 §§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	Yes	Except that §63.9(d) only applies as

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General provisions citation	Subject of citation	Applies to subpart	Explanation
	requirements for new sources		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 RATA	Yes	For CO standard if using RATA alternative.
§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.	

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General provisions citation	Subject of citation	Applies to subpart	Explanation
§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]

APPENDIX I

LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities

1. Internal combustion engines in boats, aircraft and vehicles used for transportation of passengers or freight.
2. Cold storage refrigeration equipment, except for any such equipment located at a Title V source using an ozone-depleting substance regulated under 40 CFR Part 82.
3. Vacuum pumps in laboratory operations.
4. Equipment used for steam cleaning.
5. Belt or drum sanders.
6. Equipment used exclusively for space heating, other than boilers.
7. Laboratory equipment used exclusively for chemical or physical analyses.
8. Brazing, soldering or welding equipment.
9. Fire and safety equipment.
10. Degreasing units using heavier-than-air vapors exclusively, except any such unit using or emitting any substance classified as a hazardous air pollutant.
11. No. 2 and No. 6 fuel oil storage tanks that are not regulated by 40 CFR 60 Subpart Kb.
12. No. 2 and No. 6 fuel oil truck unloading equipment.
13. Equipment for physically treating fuel oil by filtration, water separation, etc.
14. Non-halogenated solvent storage and cleaning operations not regulated by 40 CFR 63.
15. Architectural & equipment maintenance painting.
16. Surface coating operations not regulated under VOC RACT.
17. Handling and storage of moist slag fines.
18. The following engines are subject to regulation under 40 CFR 63, Subpart ZZZZ also known as (a.k.a.) MACT "4-Z's" or "RICE MACT," however, since the engines meet the Subpart ZZZZ definition of "existing units," there are no unit specific applicable requirements that must be met pursuant to this rule at this time. These engines are considered to be 'existing' units for purposes of 40 CFR 60 Subpart IIII also known as (a.k.a.) NSPS "4-I's" or "CI-ICE" {CI engines pre-May 2006 are exempt from the NSPS }:

Identification	In-service date	Horsepower (HP)
Emergency Diesel Generator	06/1970	160
Emergency Diesel Generator	06/1995	1600

There is no air pollution control equipment associated with these units.

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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.

Report	Reporting Deadline(s)	Related Condition(s)
Plant Problems/Permit Deviations	Immediately upon occurrence (See RR2.d.)	RR2., RR3.
Malfunction Excess Emissions Report	Every 3 months (quarterly), if requested	RR3.
Semi-Annual Monitoring Report	Every 6 months	RR4.
Annual Operating Report	April 1 st of each year	RR5.
Annual Emissions Fee Form and Fee	March 1 st of each year	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.

{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 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)]

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- 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.]
- 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:

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- (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.
- 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

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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 (R.O.).** 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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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.

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- (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 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.

TABLE 297.310-1 CALIBRATION SCHEDULE			
ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
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.

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[Rule 62-297.310(4), F.A.C.]

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

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- stack.
- (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees 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.

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- (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 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

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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 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

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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 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, applicable requirements of the CAIR Program, and applicable requirements of the Hg Budget Trading 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. [Rule 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, 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

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issuance at the time of application for renewal. Permit renewal applications shall contain that information 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(7), 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

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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 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

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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:
- (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:

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- (a) A calibrated flowmeter that records data on a continuous basis, if available; or
 - (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.

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- 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 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. Unless otherwise authorized by Rule 62-296.320(3) or Chapter 62-256, F.A.C., open burning is prohibited.

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’.

E.U. ID No.	Brief Description of Emissions Units and/or Activity									
-036	Slag and Bottom Ash Sources BH-001 through BH-004									
-036	Gypsum Handling and Storage Sources GH-001 through GH-017									
-036	No. 2 Fuel Oil Storage Tanks > 550 gallons									
-036	Vehicle Refueling Operations									
-045	<p>Emergency Diesel Generator and Fire Pump Diesel Engine</p> <p>The following engines are subject to regulation under 40 CFR 63, Subpart ZZZZ also known as (a.k.a.) MACT “4-Z’s” or “RICE MACT,” however, since the engines meet the Subpart ZZZZ definition of “existing units,” there are no unit specific applicable requirements that must be met pursuant to this rule at this time. These engines are considered to be ‘existing’ units for purposes of 40 CFR 60 Subpart IIII also known as (a.k.a.) NSPS “4-I’s” or “CI-ICE” {CI engines pre-May 2006 are exempt from the NSPS}:</p> <table border="1"> <thead> <tr> <th>Identification</th> <th>In-service date</th> <th>Horsepower (HP)</th> </tr> </thead> <tbody> <tr> <td>Emergency Diesel Generator</td> <td>07/1984</td> <td>550</td> </tr> <tr> <td>Fire Pump Diesel Engine</td> <td>01/2000</td> <td>596</td> </tr> </tbody> </table> <p>There is no air pollution control equipment associated with these units.</p>	Identification	In-service date	Horsepower (HP)	Emergency Diesel Generator	07/1984	550	Fire Pump Diesel Engine	01/2000	596
Identification	In-service date	Horsepower (HP)								
Emergency Diesel Generator	07/1984	550								
Fire Pump Diesel Engine	01/2000	596								

REFERENCED ATTACHMENTS.

The Following Attachments Are Included for Applicant Convenience:

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Compliance Requirements.

Table H, Permit History

Table 1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company								Final Permit No. 0570039-045-AV	
Big Bend Station								Facility ID No. 0570039	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-001, -002 & -003	Fossil Fuel Fired Steam Generator Unit Nos. 1 - 3								
Unless otherwise indicated, the following apply to each individual emissions unit listed.									
Pollutant Name or Parameter	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
VE	All	8,760	20% w/ 27% for 6 min/hr					Rule 62-296.405(1)(a), F.A.C.	III.A.11.
VE-SB	All		60% 3 hrs/24 hrs					Rule 62-210.700(3), F.A.C.	III.A.12.
-001 PM	All		0.03 lb/MMBtu			121.1	530	Consent Decree	III.A.13. & 14.
-002 PM	All		0.03 lb/MMBtu			119.9	525	Consent Decree	III.A.13. & 14.
-003 PM	All		0.03 lb/MMBtu			123.5	541	Consent Decree	III.A.13. & 14.
-001 - -004 PM combined	raw & coal	residual			2,767			Rule 62-212.400 (escape PSD), F.A.C.	III.A.15.
PM-SB	All		0.3 lb/MMBtu					Rule 62-210.700(3), F.A.C.	III.A.16.
SO ₂	#2 Fuel Oil		2.75 lb/MMBtu					Rule 62-296.405(1)(c)1.j., F.A.C.	III.A.17.
SO ₂	#2 Fuel Oil		0.5% S by weight					Rule 62-296.405(1)(e)3., F.A.C.	III.A.18.
-001 SO ₂	Solid Fuel		6.5 lb/MMBtu 2-hr avg.			26,240.5	Included in cap.	Rule 62-296.405(1)(c)2.b., F.A.C.	III.A.19.
-002 SO ₂	Solid Fuel		6.5 lb/MMBtu 2-hr avg.			25,974.0	Included in cap.	Rule 62-296.405(1)(c)2.b., F.A.C.	III.A.19.
-003 SO ₂	Solid Fuel		6.5 lb/MMBtu 2-hr avg.			26,747.5	Included in cap.	Rule 62-296.405(1)(c)2.b., F.A.C.	III.A.19.
-001 - -003 SO ₂ combined			31.5 tons/hour 3-hr avg.		NA	63,000 3-hr avg.		Rule 62-296.405(1)(c)2.b., F.A.C.	III.A.19.
-001 - -003 SO ₂ combined			25 tons/hour 24-hr avg.		NA	50,000 24-hr avg.		Rule 62-296.405(1)(c)2.b., F.A.C.	III.A.19.
-001 - -004 SO ₂ combined	raw & coal	residual			71,810	33,000 24-hr avg.		Rule 62-212.400 (escape PSD), F.A.C.	III.A.20.
-001 SO ₂	Solid Fuel		95% SO ₂ reduction or 0.25 lb/MMBtu 30-day rolling avg. on and after 01/01/2013			1,009.3	4,420	Consent Decree	III.A.21.
-002 SO ₂	Solid Fuel		95% SO ₂ reduction or 0.25 lb/MMBtu 30-day rolling avg. on and after 01/01/2013			999.0	4,376	Consent Decree	III.A.21.
-003 SO ₂	Solid Fuel		95% SO ₂ reduction or 0.25 lb/MMBtu 30-day rolling avg.			1,028.8	4,506	Consent Decree	III.A.22.
-001 NOx	Solid Fuel		0.12 lb/MMBtu 30-day rolling avg. on and after 06/01/2010			484.4	2,121.9	Consent Decree	III.A.23.
-002 NOx	Solid Fuel		0.12 lb/MMBtu 30-day rolling avg.			479.5	2,100.3	Consent Decree	III.A.23.
-003 NOx	Solid Fuel		0.12 lb/MMBtu 30-day rolling avg.			494.0	2,163.7	Consent Decree	III.A.24.
-001 & -002 CS-001 stack ammonia slip			10 ppmv			58.44	255.97	Permit Nos. 0570039-024-AC	III.A.25.
-001 & -002 CS-0w1 stack ammonia slip			10 ppmv			56.15	245.94	Permit Nos. 0570039-024-AC	III.A.25.
-003 ammonia slip			10 ppmv			33.15	145.2	Permit Nos. 0570039-022-AC (amended by 0570039-035-AC)	III.A.25.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-004	Fossil Fuel Fired Steam Generator Unit No. 4								
Pollutant Name or Parameter	Fuel(s)		Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY			
VE	All	8,760	20% w/ 27% for 6 min/hr					Rule 62-296.405(2)(a), F.A.C.	III.B.14.
PM	Solid or Liquid Fuel		0.01 lb/MMBtu			43.3	189.7	Consent Decree	III.B.15. & 16.
-001 - -004 PM combined	raw & coal residual				2,767			Rule 62-212.400 (escape PSD), F.A.C	III.B.17.
SO ₂	Solid or Liquid Fuel		0.82 lb/MMBtu 30-day rolling avg. or 90% SO ₂ reduction	3,551			1,553.4	PSD-FL-040	III.B.18. & 19.
-001 - -004 SO ₂ combined	raw & coal residual				71,810	33,000 24-hr avg.		Rule 62-212.400 (escape PSD), F.A.C	III.B.20.
NO _x	Solid Fuel		0.10 lb/MMBtu 30-day rolling avg.			433	1,896.5	Consent Decree	III.B.21.
ammonia slip			10 ppmv			38.51	168.67	Permit No. 0570039-020-AC (amended by 0570039-026, -031 & -036-AC)	III.B.22.
CO	Solid Fuel		0.20 lb/MMBtu 30-day rolling avg.			866	3,793.1	PSD-FL-390, as amended	III.B.23
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms															
Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039								
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.															
E.U. ID No.		Brief Description													
-007		Combustion Turbine No. 1													
Pollutant Name or Parameter		Fuel(s)		Hours/Year		Allowable Emissions Standard(s)		Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)				
						lbs./hour		TPY							
VE		Oil		3,650		<20%				Rule 62-296.320(4)(b)1., F.A.C.		III.C.5.			
SO ₂		Oil		3,650		0.5% S by weight		84.7		154.6		Rule 62-213.440, F.A.C.		III.C.6.	
Notes:															
* The "Equivalent Emissions" listed are for informational purposes only.															

Table 1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company Big Bend Station						Final Permit No. 0570039-045-AV Facility ID No. 0570039			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-008 ...	Flyash Handling and Storage - Silo Nos. 1 & 2								
Pollutant Name or Parameter	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
-008 & -018 PM		8,760	0.03 gr/dscf	5.16	22.62			Rule 62-4.160(2), F.A.C.	III.D.3.
-008 & -018 VE			5%					Rule 62-297.620(4), F.A.C.	III.D.3. & 4.
-009 & -019 PM		8,760	0.03 gr/dscf	5.16	22.62			Rule 62-4.160(2), F.A.C.	III.D.3.
-009 & -019 VE			5%					Rule 62-297.620(4), F.A.C.	III.D.3. & 4.
-026 VE		8,760	<20%					Rule 62-296.320(4)(b)1., F.A.C.	FW4.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company Big Bend Station						Final Permit No. 0570039-045-AV Facility ID No. 0570039				
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.										
E.U. ID No.		Brief Description								
-010, -029 & -030		Solid Fuel Yard								
Pollutant Name or Parameter		Fuel(s)		Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
		Hours/Year		Standard(s)		lbs./hour	TPY	lbs./hour		
-010 VE		8,760		<20%					Rule 62-296.320(4)(b)1., F.A.C.	FW4., III.H.7
-029 VE		8,760		5%					Rule 62-296.711(2), F.A.C.	III.P.4
-029 Particulate Matter		8,760		0.03 gr/dscf						III.P.5
-030 VE		8,760		5%					Rule 62-296.711(2), F.A.C.	III.P.4
-030 Particulate Matter		8,760		0.03 gr/dscf						III.P.5
Notes:										
* The "Equivalent Emissions" listed are for informational purposes only.										

Table 1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company						Final Permit No. 0570039-045-AV			
Big Bend Station						Facility ID No. 0570039			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.		Brief Description							
-011 ...		Limestone Handling and Storage							
Pollutant Name or Parameter		Fuel(s)		Hours/Year		Allowable Emissions Standard(s)		Equivalent Emissions*	
						lbs./hour		TPY	
						lbs./hour		TPY	
								Regulatory Citation(s)	
								See permit condition(s)	
-011 VE				8,760		<20%		Rule 62-296.320(4)(b)1., F.A.C.	
-012 & -013 PM				8,760		0.05		0.22	
-012 & -013 VE						5%		PSD-FL-040	
								PSD-FL-040	
-023 PM				8,760		0.65		2.9	
-023 VE						5%		PSD-FL-040	
								PSD-FL-040	
-020 PM				8,760		0.03 gr/dscf		2.1	
-020 VE						5%		9.2	
								Rule 62-296.711(2)(b), F.A.C.	
								Rule 62-297.620(4), F.A.C.	
-021 PM				8,760		0.03 gr/dscf		2.1	
-021 VE						5%		9.2	
								Rule 62-296.711(2)(b), F.A.C.	
								Rule 62-297.620(4), F.A.C.	
-025 VE				8,760		<20%		Rule 62-296.320(4)(b)1., F.A.C.	
								FW4.	
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms										
Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.										
E.U. ID No.		Brief Description								
-014, -027 & -028		Flyash Silo No. 3								
Pollutant Name or Parameter		Fuel(s)		Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
		Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY			
-014 & -027 PM		8,760		0.2			0.9	PA79-12 & PSD-FL-040	III.E.4.	
-014 & -027 VE			5%					PA79-12 & PSD-FL-040	III.E.5.	
-028 VE		8,760	<20%					Rule 62-296.320(4)(b)1., F.A.C.	FW4.	
Notes:										
* The "Equivalent Emissions" listed are for informational purposes only.										

Table 1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company						Final Permit No. 0570039-045-AV			
Big Bend Station						Facility ID No. 0570039			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-015 ...	Coal Bunkers with Roto-Clones								
Pollutant Name			Allowable Emissions			Equivalent Emissions*			
or Parameter	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
-015 PM		4,167		0.48	0.99			Rule 62-296.700(2)(c), F.A.C.	III.G.1. & 2.
-015 VE			5%					Rule 62-297.620(4), F.A.C.	III.G.3.
-016 PM		4,167		0.48	0.99			Rule 62-296.700(2)(c), F.A.C.	III.G.1. & 2.
-016 VE			5%					Rule 62-297.620(4), F.A.C.	III.G.3.
-017 PM		4,167		0.48	0.99			Rule 62-296.700(2)(c), F.A.C.	III.G.1. & 2.
-017 VE			5%					Rule 62-297.620(4), F.A.C.	III.G.3.
-039 PM		4,167		0.48	0.99			Rule 62-296.700(2)(c), F.A.C.	III.G.1. & 2.
-039 VE			5%					Rule 62-297.620(4), F.A.C.	III.G.3.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-022	Lime Silo for Wastewater Treatment Plant with one Baghouse								
Pollutant Name or Parameter	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
PM		8,760	0.03 gr/dscf			2.1	0.99	Rule 62-296.700(2)(c), F.A.C.	III.M.3.
VE			5%					Rule 62-296.700(2)(c), F.A.C.	III.M.3.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms

Tampa Electric Company Big Bend Station						Final Permit No. 0570039-045-AV Facility ID No. 0570039				
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.										
E.U. ID No.		Brief Description								
-032		Surface Coating of Miscellaneous Metal Parts								
Pollutant Name or Parameter		Fuel(s)		Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
		Hours/Year		Standard(s)		lbs./hour	TPY	lbs./hour	TPY	
VOC		3,500		3.0 - 4.3 lb/gallon max.				15	Rule 62-296.513(2), F.A.C.	III.1.3.
Notes:										
* The "Equivalent Emissions" listed are for informational purposes only.										

Table 1, Summary of Air Pollutant Standards and Terms										
Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.										
E.U. ID No.		Brief Description								
-033 & -034		Abrasive Blasting								
Pollutant Name or Parameter		Allowable Emissions			Equivalent Emissions*			Regulatory Citation(s)		See permit condition(s)
	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY			
-033 & -034 PM		8,760	0.03 gr/dscf		15.0	3.4		Rule 62-296.712(2), F.A.C.	III.J.3.	
VE			5%					Rule 62-296.712(2), F.A.C.	III.J.3.	
Notes:										
* The "Equivalent Emissions" listed are for informational purposes only.										

Table 1, Summary of Air Pollutant Standards and Terms											
Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039				
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.											
E.U. ID No.		Brief Description									
-035		Surface Coating of Ships									
Pollutant Name or Parameter		Fuel(s)		Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)	
		Hours/Year		Standard(s)		lbs./hour	TPY	lbs./hour	TPY		
VOC		8,760		4.3 lb/gallon max., Table 2					0.57	40 CFR 63.783	III.K.4.
Notes:											
* The "Equivalent Emissions" listed are for informational purposes only.											

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-037 & -038	Coal Residual Storage and Transfer from the Polk Power Station								
Pollutant Name or Parameter	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
-037 VE		8,760	<20%					Rule 62-296.320(4)(b)1., F.A.C.	FW4.
-038 VE			5%					Rule 62-297.620(4), F.A.C.	III.M.4.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company Big Bend Station						Final Permit No. 0570039-045-AV Facility ID No. 0570039			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-041 & -042	Coal Residual Storage and Transfer from the Polk Power Station								
Pollutant Name or Parameter	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
-041 & -042 VE		8,760	<10%						III.O.7
-041 & -042 Nox	NG	3,500	25 ppmvd	32			56.0		III.O.8.
-041 & -042 Nox	ULSD	500	42 ppmvd	51			12.825		III.O.8.
-041 & -042 Nox	NG & ULSD	3,500							III.O.8.
-041 & -042 CO	NG	3,500	21 ppmvd	9.1			15.925		III.O.9.
-041 & -042 CO	ULSD	500	5.1 ppmvd	2.1			0.525		III.O.9.
-041 & -042 SO2	NG	3,500	2.0 gr of S/100 scf of NG						III.O.11.
-041 & -042 SO2	ULSD	500	0.0015% S by weight						III.O.11.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-046	Coal Residual Storage and Transfer from the Polk Power Station								
Pollutant Name or Parameter	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
-046 VE		8,760	<20%					Rule 62-296.320(4)(b)1., F.A.C.	FW4. & III.Q.6
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-047	Coal Residual Storage and Transfer from the Polk Power Station								
Pollutant Name or Parameter	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
-047 VE		8,760	<20%					Rule 62-296.320(4)(b)1., F.A.C.	FW4. & III.Q.7
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 2, Summary of Compliance Requirements

Tampa Electric Company
 Big Bend Station

Final Permit No. 0570039-045-AV
 Facility ID No. 0570039

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. **Brief Description**
 -001, -002 & -003 Fossil Fuel Fired Steam Generator Unit Nos. 1 - 3

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing	Frequency	Min. Compliance	CMS**	See permit condition(s)
			Time Frequency	Base Date *	Test Duration		
VE	All	DEP Method 9	annual & renewal		60 minutes	yes	III.A.42., 46. & 47.
VE-SB	All	DEP Method 9	annual & renewal		60 minutes	yes	III.A.42., 46. & 47.
PM	All	EPA Method 17, 5, 5B, or 5F	annual & renewal		1 hour		III.A.42. & 48.
PM-SB	All	EPA Method 17, 5, 5B, or 5F	annual & renewal		1 hour		III.A.42. & 48.
SO ₂	#2 Fuel Oil	fuel sampling & analysis	upon each fuel delivery			yes	III.A.50. & 51.
SO ₂	Solid Fuel	CEMS	annual RATA			yes	III.A.35. & 49.
NO _x	Solid Fuel	CEMS	annual RATA			yes	III.A.36. & 42.
Ammonia slip		EPA conditional test method (CTM-027), EPA Method 320	annual testing if > 5 ppmv				III.A.42. & 52.
CO ₂	All					yes	III.A.40.
stack gas flow	All					yes	III.A.40.

Notes:

* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

**CMS [=] continuous monitoring system

Table 2, Summary of Compliance Requirements

Tampa Electric Company					Final Permit No. 0570039-045-AV		
Big Bend Station					Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.	Brief Description						
-004	Fossil Fuel Fired Steam Generator Unit No. 4						
			Testing	Frequency	Min. Compliance		
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Time Frequency	Base Date *	Test Duration	CMS**	See permit condition(s)
VE	All	EPA Method 9	annual & renewal		60 minutes	yes	III.B.42. & 47.
PM	All	EPA Method 17, 5, 5B, or 5F	annual & renewal		1 hour		III.B.48.
SO ₂	#2 Fuel Oil	fuel sampling & analysis	upon each fuel delivery			yes	III.B.50. & 51.
SO ₂	Solid Fuel	CEMS	annual RATA			yes	III.B.34.
NO _x	Solid Fuel	CEMS	annual RATA			yes	III.B.35. & 36.
Ammonia slip		EPA conditional test method (CTM-027), EPA Method 320	annual testing if > 5 ppmv				III.B.52.
CO		EPA Method 10	annual RATA			yes	III.B.37. & 38.
CO ₂	All					yes	III.B.40.
stack gas flow	All					yes	III.B.40.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							

Table 2, Summary of Compliance Requirements

Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.								
E.U. ID No.		Brief Description						
-007		Combustion Turbine No. 1						
				Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration		
Pollutant Name or Parameter		Fuel(s)	Compliance Method				CMS**	See permit condition(s)
VE		Oil	EPA Method 9	Annual		30 minutes		III.C.10, 12. - 15.
SO2		Oil	0.5% S by weight	Each Delivery				III.C.11.
Notes:								
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.								
**CMS [=] continuous monitoring system								

Table 2, Summary of Compliance Requirements

Tampa Electric Company Big Bend Station					Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.	Brief Description						
-008 ...	Flyash Handling and Storage - Silo Nos. 1 & 2						
			Testing Time	Frequency Base Date *	Min. Compliance Test Duration		
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Frequency	Date *	Duration	CMS**	See permit condition(s)
-008 &-018 PM		EPA Method 5	waived				III.D.3. & 13.
-008 &-018 VE		EPA Method 9	annual		30 minutes		III.D.8. - 11.
-009 &-019 PM		EPA Method 5	waived				III.D.3. & 13.
-009 &-019 VE		EPA Method 9	annual		30 minutes		III.D.8. - 11.
-026 VE		EPA Method 9 or 22	not required				FW4.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							

Table 2, Summary of Compliance Requirements

Tampa Electric Company Big Bend Station		Final Permit No. 0570039-045-AV Facility ID No. 0570039					
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
-010, -029 & -030		Solid Fuel Yard					
				Testing Time	Frequency	Min. Compliance Test	
Pollutant Name or Parameter		Fuel(s)	Compliance Method	Frequency	Base Date *	Duration	CMS** See permit condition(s)
-010 VE			EPA Method 9	annual		30 minutes	III.H.11. - 15.
-029 VE			EPA Method 9	annual		30 minutes	III.P.8. - 12.
-029 PM			EPA Method 5	annual			III.P.8. - 11 & 13
-030 PM			EPA Method 9	annual		30 minutes	III.P.8. - 12.
-030 VE			EPA Method 5				III.P.8. - 11 & 13
Notes:							

Table 2, Summary of Compliance Requirements							
Tampa Electric Company Big Bend Station					Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.	Brief Description						
-011 ...	Limestone Handling and Storage						
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See permit condition(s)
-011 VE		EPA Method 9 or 22	not required				FW4.
-012 & -013 PM		EPA Method 5	waived				III.F.8.
-012 & -013 VE		EPA Method 9	annual		30 minutes		III.F.16.
-023 PM		EPA Method 5	waived				III.F.7.
-023 VE		EPA Method 9	annual		30 minutes		III.F.16.
-020 PM		EPA Method 5	waived				III.F.18.
-020 VE		EPA Method 9	annual		30 minutes		III.F.13.
-021 PM		EPA Method 5	waived				III.F.18.
-021 VE		EPA Method 9	annual		30 minutes		III.F.13.
-025 VE		EPA Method 9 or 22	not required				FW4.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							

Table 2, Summary of Compliance Requirements

Tampa Electric Company
Big Bend Station

Final Permit No. 0570039-045-AV
Facility ID No. 0570039

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No. Brief Description

-014, -027 & -028 Flyash Silo No. 3

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing	Frequency	Min. Compliance	CMS**	See permit condition(s)
			Time Frequency	Base Date *	Test Duration		
-014 & -027 PM		EPA Method 5	waived				III.E.8. - 12.
-014 & -027 VE		EPA Method 9	annual		30 minutes		III.E.8. - 12.
-028 VE		EPA Method 9	not required				FW4.

Notes:

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Table 2, Summary of Compliance Requirements

Tampa Electric Company Big Bend Station					Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.	Brief Description						
-015 ...	Coal Bunkers with Roto-Clones						
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See permit condition(s)
-015 PM		EPA Method 5	waived				III.G.3.
-015 VE		EPA Method 9	annual		30 minutes		III.G.6. - 10.
-016 PM		EPA Method 5	waived				III.G.3.
-016 VE		EPA Method 9	annual		30 minutes		III.G.6. - 10.
-017 PM		EPA Method 5	waived				III.G.3.
-017 VE		EPA Method 9	annual		30 minutes		III.G.6. - 10.
-039 PM		EPA Method 5	waived				III.G.3.
-039 VE		EPA Method 9	annual		30 minutes		III.G.6. - 10.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
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Table 2, Summary of Compliance Requirements							
Tampa Electric Company Big Bend Station					Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.	Brief Description						
-022	Lime Silo for Wastewater Treatment Plant with one Baghouse						
			Testing Time	Frequency Base Date *	Min. Compliance Test Duration		
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Frequency	Date *	Duration	CMS**	See permit condition(s)
PM		EPA Method 5	waived				III.L.3., & 11.
VE		EPA Method 9	annual		30 minutes		III.L.6., 7. & 10.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
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Table 2, Summary of Compliance Requirements

Tampa Electric Company Big Bend Station							Final Permit No. 0570039-045-AV Facility ID No. 0570039	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.								
E.U. ID No.	Brief Description							
-032	Surface Coating of Miscellaneous Metal Parts							
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See permit condition(s)	
VOC		Material balance					III.1.7. - 10. & 13.	
Notes:								
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.								
**CMS [=] continuous monitoring system								

Table 2, Summary of Compliance Requirements							
Tampa Electric Company Big Bend Station						Final Permit No. 0570039-045-AV Facility ID No. 0570039	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
-033 & -034		Abrasive Blasting					
		Testing Time		Frequency Base Date *	Min. Compliance Test Duration	CMS**	See permit condition(s)
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Frequency	Base Date *	Test Duration	CMS**	See permit condition(s)
PM		EPA Method 5	waived				III.J.7., 10. & 11.
VE		EPA Method 9	annual		30 minutes		III.J.7. - 10.
Notes:							
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Table 2, Summary of Compliance Requirements

Tampa Electric Company
Big Bend Station

Final Permit No. 0570039-045-AV
Facility ID No. 0570039

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.		Brief Description					
-035		Surface Coating of Ships					
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See permit condition(s)
VOC		Material balance					III. K.4.

Notes:

* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

**CMS [=] continuous monitoring system

Table 2, Summary of Compliance Requirements							
Tampa Electric Company Big Bend Station					Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.	Brief Description						
-037 & -038	Coal Residual Storage and Transfer from the Polk Power Station						
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See permit condition(s)
-037 VE		EPA Method 9	not required				FW4.
-038 VE		EPA Method 9	annual		30 minutes		III.M.7. - 11
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							

Table 2, Summary of Compliance Requirements							
Tampa Electric Company Big Bend Station					Final Permit No. 0570039-045-AV Facility ID No. 0570039		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.	Brief Description						
-041 & -042	Coal Residual Storage and Transfer from the Polk Power Station						
			Testing Time	Frequency Base Date *	Min. Compliance Test		
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Frequency	Date *	Duration	CMS**	See permit condition(s)
-041 & -042 VE		EPA Method 9	not required				III.O.26
-041 & -042 CO		EPA Method 10			3 hr. rolling avg.		III.O.27
-041 & -042 NOx		EPA Method 7E, 19 & 20	annual				III.O.28
-041 & -042 SO2		EPA Method 6 or 6C & 8					III.O.30
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
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Tampa Electric Company Big Bend Station						Final Permit No. 0570039-045-AV Facility ID No. 0570039	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
-046 & -047		Coal Residual Storage and Transfer from the Polk Power Station					
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time	Frequency	Min. Compliance Test	CMS**	See permit condition(s)
			Frequency	Base Date *	Duration		
-046 VE		EPA Method 9	annual		30 minute		III.Q.13
-047 VE		EPA Method 9	annual		30 minute		III.R.12
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
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TABLE H

PERMIT HISTORY/ID NUMBER CHANGES

This permit history summarizes primarily projects issued after project number -017-AV. For previously issued projects, also refer to the Appendix H-1's referenced in Permit Nos. 0570039-002-AV and 0570039-017-AV posted on the web site.

Relevant Permits Issued & Projects:

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Facility	0570039-002-AV	01/01/2001	12/31/2004	Initial
All	Facility	0570039-017-AV	01/01/2005	12/31/2009	Renewal (1 st)
All	Facility	0570039-039-AV	01/01/2010	12/31/2014	Renewal (2 nd)
NA	NA	-018 & -019	NA	NA	NA
-004	Unit 4 SCR	0570039-020-AC	05/06/2005	12/31/2007	Construction (mod.)
-001 - -004	Acid Rain Correction	0570039-021-AV	02/28/2005	NA	Admin. Correction
-003	Unit 3 SCR	0570039-022-AC	11/10/2005	12/31/2005	Construction (mod.)
NA	NA	-023	NA	NA	NA
-001 & -002	Unit 1 & 2 SCR	0570039-024-AC	03/30/2006	12/31/2010	Construction (mod.)
-010	Transloading	0570039-025-AC	10/31/2006	07/31/2006	Construction (mod.)
-004	Modification of 0570039-020-AC - SCR on Unit 4	0570039-026-AC	12/29/2006	NA	Construction (mod.)
-004	Unit 4 CO limit increase	0570039-027-AC	01/16/2008	12/31/2008	Construction (mod.)
-010	Incorporation of 0570039-025-AC	0570039-028-AV ¹	11/19/2007	NA	Revision
NA	NA	-029	NA	NA	NA
-003 & -004	Modification of 0570039-022-AC - Unit 3 & 4 Duct Split	0570039-030-AC	11/20/2007	NA	Construction (mod.)
-004	Modification of 0570039-020-AC - SCR on Unit 4	0570039-031-AC	11/20/2007	03/31/2008	Construction (mod.)
-004	Revision request for 0570039-020-AC Condition A.20 for Unit 4	0570039-032-AC	Withdrawn	NA	Construction (mod.)
-011	Modify Permit 0570039-028-AV Condition F.5 by removing E.U ID No. 011 from the list of E.U.'s requiring a visible emissions test.	0570039-033-AC	Withdrawn	NA	Construction (mod.)
-011	Modify Permit 0570039-028-AV Condition F.5 by removing E.U ID	0570039-034-AV	Withdrawn	NA	Revision

TABLE H**PERMIT HISTORY/ID NUMBER CHANGES**

	No. 011 from the list of E.U.'s requiring a visible emissions test.				
-003	Unit 3 SCR AC permit extension	0570039-035-AC	06/03/2008	NA	Construction (mod.)
-004	Unit 4 and duct split project	0570039-036-AC	06/06/2008	12/31/2008	Construction (mod.)
		0570039-037-AV	01/28/2009	NA	Revision (CAIR)
		0570039-038-AV	Withdrawn	NA	Revision (CAMR)
All		0570039-039-AV	12/17/2009	12/17/2014	Renewal
-041, -042 & -043	Two Simple Cycle Combustion Turbines-Generator Peaker Project	0570039-040-AC	12/10/2008	12/31/2010	Construction
-010	Railcar unloading project	0570039-041-AC	12/31/2008	12/31/2010	Construction
-004	Extension of 0570039-027-AC	0570039-042-AC	11/10/2008	03/31/2009	Construction (mod.)
-041, -042	Interim Fuel Authorization	0570039-043-AC	08/20/2009	08/20/2011	Construction (mod.)
	AC Projects 040 & 041 add. & misc. permit clean-ups	0570039-045-AC	04/05/2011	12/31/2014	Revision

¹ the most recent Title V air operation permit posted on the web site.

"NA" represents not applicable.

Friday, Barbara

To: 'rdbishop@tecoenergy.com'
Cc: plcarpinone@tecoenergy.com; 'Byron Burrows'; 'jmward@tecoenergy.com'; 'Tom Davis'; 'lee@epchc.org'; 'Zhang-Torres'; 'Kathleen Forney'; Ana Oquendo; Gibson, Victoria; Bass, Andrew; Holtom, Jonathan
Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV
Attachments: 0570039-045-AV SignedNoticeofFinalPermit.pdf

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document

Attention: Andrew Bass

Owner/Company Name: TAMPA ELECTRIC COMPANY
Facility Name: BIG BEND STATION
Project Number: 0570039-045-AV
Permit Status: FINAL
Permit Activity: PERMIT REVISION
Facility County: HILLSBOROUGH

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0570039.045.AV.F_pdf.zip

“The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the “*Air Permit Documents Search*” website at

<http://www.dep.state.fl.us/air/emission/apds/default.asp> . “

Permit project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation.

Barbara Friday
Bureau of Air Regulation
Division of Air Resource Management (DARM)
(850)717-9095

Friday, Barbara

From: Microsoft Exchange
To: Tom Davis
Sent: Friday, April 15, 2011 11:23 AM
Subject: Relayed: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

Tom Davis

Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Sent by Microsoft Exchange Server 2007

Friday, Barbara

From: Burrows, Byron T. [BTBurrows@tecoenergy.com]
To: Friday, Barbara
Sent: Friday, April 15, 2011 11:31 AM
Subject: Read: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Your message was read on Friday, April 15, 2011 11:31:16 AM (GMT-05:00) Eastern Time (US & Canada).

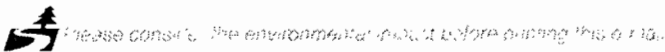
Friday, Barbara

From: Ward, Julie M. [jmw@tecoenergy.com]
Sent: Friday, April 15, 2011 4:59 PM
To: Friday, Barbara
Subject: RE: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Barbara,

Have you heard a response on this?

Julie Ward
Air Programs
Office: 34740
Cell: (813) 476-3237



From: Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]
Sent: Friday, April 15, 2011 11:23 AM
To: Bishop, Ron D.
Cc: Carpinone, Paul L.; Burrows, Byron T.; Ward, Julie M.; Tom Davis; lee@epchc.org; Zhang-Torres; Kathleen Forney; Ana Oquendo; Gibson, Victoria; Bass, Andrew; Holtom, Jonathan
Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document

Attention: Andrew Bass

Owner/Company Name: TAMPA ELECTRIC COMPANY
Facility Name: BIG BEND STATION
Project Number: 0570039-045-AV
Permit Status: FINAL
Permit Activity: PERMIT REVISION
Facility County: HILLSBOROUGH

Click on the following link to access the permit project documents:
http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0570039.045.AV.F_pdf.zip

"The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other

project documents using the “*Air Permit Documents Search*” website at <http://www.dep.state.fl.us/air/emission/apds/default.asp> . “

Permit project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation.

Barbara Friday
Bureau of Air Regulation
Division of Air Resource Management (DARM)
(850)717-9095

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.

NOTICE: This email is intended only for the individual(s) to whom it is addressed and may contain confidential information. If you have received this email by mistake, please notify the sender immediately, delete this email from your system and do not copy or disclose it to anyone else. Although we take precautions to protect against viruses, we advise you to take your own precautions to protect against viruses as we accept no liability for any which remain.

Friday, Barbara

To: tdavis@ectinc.com
Subject: RE: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

From: Tom Davis [mailto:tdavis@ectinc.com]
Sent: Friday, April 15, 2011 11:23 AM
To: Friday, Barbara
Subject: RE: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Barbara,

I have received and view the documents referenced in your email below.

Thanks.

From: Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]
Sent: Friday, April 15, 2011 11:23 AM
To: rdbishop@tecoenergy.com
Cc: plcarpinone@tecoenergy.com; Byron Burrows; jmward@tecoenergy.com; Tom Davis; lee@epchc.org; Zhang-Torres; Kathleen Forney; Ana Oquendo; Gibson, Victoria; Bass, Andrew; Holtom, Jonathan
Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Dear Sir/ Madam:

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Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document

Attention: Andrew Bass

Owner/Company Name: TAMPA ELECTRIC COMPANY
Facility Name: BIG BEND STATION
Project Number: 0570039-045-AV
Permit Status: FINAL
Permit Activity: PERMIT REVISION
Facility County: HILLSBOROUGH

Click on the following link to access the permit project documents:
http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0570039.045.AV.F_pdf.zip

“The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other

project documents using the “*Air Permit Documents Search*” website at <http://www.dep.state.fl.us/air/emission/apds/default.asp> . “

Permit project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation.

Barbara Friday
Bureau of Air Regulation
Division of Air Resource Management (DARM)
(850)717-9095

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.

Friday, Barbara

From: Microsoft Exchange
To: lee@epchc.org
Sent: Friday, April 15, 2011 11:23 AM
Subject: Relayed: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

lee@epchc.org

Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Sent by Microsoft Exchange Server 2007

Friday, Barbara

From: Lee, Diana [Lee@epchc.org]
To: Friday, Barbara
Sent: Friday, April 15, 2011 1:41 PM
Subject: Read: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Your message was read on Friday, April 15, 2011 1:40:30 PM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Microsoft Exchange
To: Zhang-Torres; Holtom, Jonathan; Gibson, Victoria
Sent: Friday, April 15, 2011 11:23 AM
Subject: Delivered: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Your message has been delivered to the following recipients:

Zhang-Torres

Holtom, Jonathan

Gibson, Victoria

Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Sent by Microsoft Exchange Server 2007

Friday, Barbara

From: Zhang-Torres
To: Friday, Barbara
Sent: Friday, April 15, 2011 11:26 AM
Subject: Read: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Your message was read on Friday, April 15, 2011 11:25:53 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Holtom, Jonathan
To: Friday, Barbara
Sent: Friday, April 15, 2011 11:25 AM
Subject: Read: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Your message was read on Friday, April 15, 2011 11:25:15 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Mail Delivery System [MAILER-DAEMON@mseive02.rtp.epa.gov]
To: forney.kathleen@epa.gov
Sent: Friday, April 15, 2011 11:23 AM
Subject: Relayed: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

forney.kathleen@epa.gov

Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Friday, Barbara

From: Mail Delivery System [MAILER-DAEMON@mseive02.rtp.epa.gov]
To: Oquendo.Ana@epamail.epa.gov
Sent: Friday, April 15, 2011 11:23 AM
Subject: Relayed: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

Oquendo.Ana@epamail.epa.gov

Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Friday, Barbara

From: Gibson, Victoria
To: Friday, Barbara
Sent: Friday, April 15, 2011 11:23 AM
Subject: Read: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Your message was read on Friday, April 15, 2011 11:23:15 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Microsoft Exchange
To: Bass, Andrew
Sent: Friday, April 15, 2011 11:23 AM
Subject: Delivered: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Your message has been delivered to the following recipients:

Bass, Andrew

Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Sent by Microsoft Exchange Server 2007

Friday, Barbara

From: Bass, Andrew
To: Friday, Barbara
Sent: Friday, April 15, 2011 11:23 AM
Subject: Read: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

Your message was read on Friday, April 15, 2011 11:23:07 AM (GMT-05:00) Eastern Time (US & Canada).

Friday, Barbara

From: Velasco, Robert A. [RAVelasco@tecoenergy.com]
Sent: Friday, April 15, 2011 10:45 PM
To: Friday, Barbara
Cc: Carpinone, Paul L.; Burrows, Byron T.; Ward, Julie M.; Bishop, Ron D.; Kelleher, Rebecka
Subject: FW: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV
Attachments: 0570039-045-AV SignedNoticeofFinalPermit.pdf

Barbara:

Tampa Electric Company has confirmed the receipt of the documents provided in the link.

Best Regards,

(Rob) Robert Velasco, P.E., BCEE

EHS Air Programs

Tampa Electric Company

P.O. Box 111

Tampa, FL 33601

Phone: (813) 228-4232

Cell: (813) 417-9524

Fax: (813) 228-1308

www.tampaelectric.com/environmental/

From: Friday, Barbara [<mailto:Barbara.Friday@dep.state.fl.us>]
Sent: Friday, April 15, 2011 11:22 AM
To: Bishop, Ron D.
Cc: Carpinone, Paul L.; Burrows, Byron T.; Ward, Julie M.; Tom Davis <tdavis@ectinc.com>; lee@epchc.org <lee@epchc.org>; Zhang-Torres <Cindy.Zhang-Torres@dep.state.fl.us>; Kathleen Forney <forney.kathleen@epa.gov>; Ana Oquendo <Oquendo.Ana@epamail.epa.gov>; Gibson, Victoria <Victoria.Gibson@dep.state.fl.us>; Bass, Andrew <Andrew.Bass@dep.state.fl.us>; Holtom, Jonathan <Jonathan.Holtom@dep.state.fl.us>
Subject: TAMPA ELECTRIC COMPANY - BIG BEND STATION; 0570039-045-AV

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Barbara Friday
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Division of Air Resource Management (DARM)
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NOTICE: This email is intended only for the individual(s) to whom it is addressed and may contain confidential information. If you have received this email by mistake, please notify the sender immediately, delete this email from your system and do not copy or disclose it to anyone else. Although we take precautions to protect against viruses, we advise you to take your own precautions to protect against viruses as we accept no liability for any which remain.