Memorandum

Florida Department of Environmental Protection

TO: Trina Vielhauer, Bureau of Air Regulation

THROUGH: Jon Holtom, Title V Section

FROM: Tom Cascio

DATE: July 15, 2009 4V
SUBJECT: Draft/Proposed Permit No. 1110121-002-AV

Draft Permit Modification No. 1110121-003-AC (PSD-FL-353A)
Florida Municipal Power Authority, Treasure Coast Energy Center

Initial Title V Air Operation Permit and Air Construction Permit Modification

Attached for your review are the following items:

• Written Notice of Intent to Issue Air Permits;

• Public Notice of Intent to Issue Air Permits;

Statement of Basis:

• Draft/Proposed Title V Air Operation Permit;

• Draft Air Construction Permit Modification;

Technical Evaluation and Preliminary Determination; and,

• P.E. Certification.

The draft/proposed Title V air operation permit is the initial Title V air operation permit for the Treasure Coast Energy Center in St. Lucie County, Florida. The Statement of Basis provides a summary of the project and the rationale for issuance. The permit modification revises certain specific conditions of air construction permit 1110121-001-AC (PSD-FL-353), that authorized the construction of the 300 megawatt (MW) gas-fired combined cycle unit at the facility. The P.E. certification briefly summarizes the proposed project.

The application was received on August 11, 2008. A third RAI letter was issued on April 10, 2009. A response was received on April 16, 2009. Day 90 is July 15th. There is no ongoing/open enforcement case for this facility, as advised by the Southeast District Office.

I recommend your approval of the attached draft/proposed Title V air operation permit and the draft air construction permit modification.

Attachments

P.E. CERTIFICATION STATEMENT

PERMITTEE

Florida Municipal Power Agency 8553 Commodity Circle Orlando, Florida 32819 Permit No. 1110121-002-AV
Permit No. 1110121-003-AC (PSD-FL-353A)
Facility ID No. 1110121
Treasure Coast Energy Center
Initial Title V Air Operation Permit
Air Construction Permit Modification
St. Lucie County, Florida

PROJECT DESCRIPTION

The draft/proposed Title V air operation permit is the initial Title V air operation permit for the Treasure Coast Energy Center in St. Lucie County, Florida. The permit modification revises certain specific conditions of air construction permit 1110121-001-AC (PSD-FL-353) that authorized the construction of the 300 megawatt (MW) gas-fired combined cycle unit at the facility.

I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).

This review was conducted by Tom Cascio under my responsible supervision.

onathan K. Holtom, P.E.

Registration Number: 0052664

Florida Department of Environmental Protection

Division of Air Resource Management • Bureau of Air Regulation • Title V Section 2600 Blair Stone Road MS #5505 • Tallahassee, Florida 32399-2400



Florida Department of Environmental Protection

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

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

July 15, 2009

Electronic Mail - Received Receipt Requested.

Mr. Edward S. Leongomez, Plant Manager Florida Municipal Power Authority 8553 Commodity Circle Orlando, Florida 32819

Re: Permit Nos. 1110121-002-AV and 1110121-003-AC (PSD-FL-353A)

Treasure Coast Energy Center

Air Construction Permit Modification and Initial Title V Air Operation Permit

Dear Mr. Leongomez:

Enclosed is the permit package for an air construction permit modification and an initial Title V air operation permit for the Treasure Coast Energy Center. This facility is located in St. Lucie County, at 4545 Energy Lane, Fort Pierce, Florida 34981. The permit package includes the following documents:

- The draft air construction permit modification and supporting technical evaluation and preliminary determination document.
- The statement of basis, which summarizes the facility, the equipment and the primary rule applicability for the initial Title V air operation permit.
- The draft/proposed initial Title V air operation permit, which includes the specific permit conditions that regulate the emissions units covered by the proposed project.
- The Written Notice of Intent to Issue Air Permits provides important information regarding: the Permitting Authority's intent to issue air permits for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue air permits; the procedures for submitting comments on the draft/proposed permits; the process for filing a petition for an administrative hearing; and the availability of mediation.
- The Public Notice of Intent to Issue Air Permits is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The Public Notice of Intent to Issue Title V Air Permits must be published as soon as possible and the proof of publication must be provided to the Department within seven days of the date of publication.

If you have any questions, please contact the Project Engineer, Tom Cascio, by telephone at 850-921-9526 or by email at Tom.Cascio@dep.state.fl.us.

Donatter.

Trina L. Vielhauer, Chief Bureau of Air Regulation

Enclosures TLV/jkh/tbc

In the Matter of an

Application for an Air Construction Permit Modification and an Initial Title V Air Operation Permit by:

Florida Municipal Power Authority 8553 Commodity Circle

Orlando, Florida 32819 Responsible Official:

Mr. Edward S. Leongomez, Plant Manager

Permit Nos. 1110121-002-AV and

1110121-003-AC (PSD-FL-353A)

Facility ID No. 1110121 Treasure Coast Energy Center

Air Construction Permit Modification Initial Title V Air Operation Permit

St. Lucie County, Florida

Facility Location: Florida Municipal Power Authority operates the Treasure Coast Energy Center, which is located in St. Lucie County at 4545 Energy Lane, Fort Pierce, Florida.

Project: The purpose of this project is to issue an air construction permit modification and an initial Title V air operation permit for the facility. Details of the project are provided in the application and the enclosed Statement of Basis.

This air construction permit modification updates the specific conditions of PSD-FL-353 for the combined cycle unit by removing obsolete references to New Source Performance Standards (NSPS) Subparts GG and Da, and appropriately rewording or adding applicable emissions unit specific conditions based on U.S. EPA newly adopted NSPS Subpart KKKK regulations (Requirements for Gas Turbines and Duct Burners). Other minor changes were made as described in the project's Technical Evaluation and Preliminary Determination document.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work.

Applications for Title V air operation permits with Acid Rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213 and 62-214 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the draft/proposed permits, the statement of basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft/proposed permits by visiting the following website: http://www.dep.state.fl.us/air/eproducts/apds/default.asp and entering the permit number shown above. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Permits: The Permitting Authority gives notice of its intent to issue an air construction permit modification to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297,

F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the proposed draft air construction permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

The Permitting Authority gives notice of its intent to issue an initial Title V air operation permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the draft/proposed permit unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at the above address or phone number. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the draft air construction permit modification for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the draft air construction permit modification, the Permitting Authority shall revise the draft air construction permit modification and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

The Permitting Authority will accept written comments concerning the draft/proposed Title V air operation permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). If a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received written comments or comments received at a public meeting result in a significant change to the draft/proposed permit, the Permitting Authority shall issue a revised draft/proposed permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons

other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

EPA Review: EPA has agreed to treat the draft/proposed Title V air operation permit as a proposed Title V air operation permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that result in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address: http://www.epa.gov/region4/air/permits/Florida.htm.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the Permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for

such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at http://www.epa.gov/region4/air/permits/Florida.htm.

Executed in Tallahassee, Florida.

Sonathan Hollom
Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

Mr. Edward S. Leongomez, Florida Municipal Power Authority: esl@fpua.com

Mr. Stanley A. Armbruster, P.E., Black & Veatch: armbrustersa@bv.com

Mr. Lennon Anderson, Southeast District Office: lennon.anderson@dep.state.fl.us

Ms. Katy Forney, EPA Region 4: forney.kathleen@epa.gov

Ms. Ana Oquendo, US EPA Region 4: oquendo.ana@epa.gov

Ms. Debbie Nelson, Special Projects Section: deborah.nelson@dep.state.fl.us

Ms. Barbara Friday, DEP BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)

Ms. Vickie Gibson, DEP BAR: victoria.gibson@dep.state.fl.us (read file copy)

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.

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMITS

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation
Draft/Proposed Title V Air Operation Permit No. 1110121-002-AV
Draft Air Construction Permit Modification No. 1110121-003-AC (PSD-FL-353A)
Florida Municipal Power Authority, Treasure Coast Energy Center
St. Lucie County, Florida

Applicant: The applicant for this project is Florida Municipal Power Authority. The applicant's responsible official and mailing address are: Mr. Edward S. Leongomez, Plant Manager, Florida Municipal Power Authority (FMPA), Treasure Coast Energy Center, 8553 Commodity Circle, in Orlando, Florida 32819.

Facility Location: The applicant operates the existing Treasure Coast Energy Center, which is located in St. Lucie County at 4545 Energy Lane, in Fort Pierce, Florida.

Project: The applicant applied on August 11, 2008 to the Department for an air construction permit modification and an initial Title V air operation permit. The existing facility consists of the following emissions units.

The FMPA facility is a combined cycle power plant. The earlier construction project installed one combined cycle unit consisting of one gas turbine (nominal 170 megawatt (MW)) and one heat recovery steam generator with supplementary duct firing, a steam turbine-electrical generator (nominal 130 MW), a mechanical draft cooling tower, and one 990,000 gallon fuel oil storage tank. Ancillary equipment includes a diesel engine driven fire pump with associated 500 gallon fuel oil tank, and a safe shutdown generator.

This air construction permit modification updates the specific conditions of PSD-FL-353 for the combined cycle unit by removing obsolete references to New Source Performance Standards (NSPS) Subparts GG and Da, and appropriately rewording or adding applicable emissions unit specific conditions based on U.S. EPA newly adopted NSPS Subpart KKKK regulations (Requirements for Gas Turbines and Duct Burners). Other minor changes were made as described in the project's Technical Evaluation and Preliminary Determination document available from the Permitting Authority.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project.

Applications for Title V air operation permits with Acid Rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213 and 62-214, of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the draft air construction permit modification, the draft/proposed Title V air operation permit, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft/proposed permits by visiting the following website:

http://www.dep.state.fl.us/air/eproducts/apds/default.asp and entering the permit number shown above. Interested persons may contact the Permitting Authority's project review engineer for additional information at

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMITS

the address or phone number listed above.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air construction permit modification to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the proposed draft air construction permit modification unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

The Permitting Authority gives notice of its intent to issue a Title V air operation permit to the applicant for the project described above. The applicant has provided reasonable assurance that continued operation of existing equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final Title V air operation permit in accordance with the conditions of the draft/proposed Title V air operation permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed draft air construction permit modification for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the draft air construction permit modification, the Permitting Authority shall revise the draft air construction permit modification and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

The Permitting Authority will accept written comments concerning the draft/proposed Title V air operation permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). If a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received written comments or comments received at a public meeting result in a significant change to the draft/proposed Title V air operation permit, the Permitting Authority shall issue a revised draft/proposed Title V air operation permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 14 days of publication of the Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMITS

under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

EPA Review: EPA has agreed to treat the draft/proposed Title V air operation permit as a proposed Title V air operation permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that result in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address: http://www.epa.gov/region4/air/permits/Florida.htm.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the Permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at http://www.epa.gov/region4/air/permits/Florida.htm.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Florida Municipal Power Authority
Treasure Coast Energy Center
PSD Permit Modification
Saint Lucie County

DEP File No. 1110121-003-AC PSD-FL-353A



Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Title V Section

July 15, 2009

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. GENERAL PROJECT INFORMATION

Applicant Name and Address

Florida Municipal Power Agency (FMPA) Treasure Coast Energy Center (TCEC) 8553 Commodity Circle Orlando, Florida 32819

Authorized Representative:

Mr. Edward S. Leongomez, Plant Manager

Processing Schedule

August 11, 2008: Air construction permit application received

April 16, 2009: Application deemed complete.

Facility Description and Location

This facility is a nominal 300 megawatt (MW) gas-fired combined cycle electrical power plant. The plant includes one 170 MW combustion turbine generator, one heat recovery steam generator (HRSG), a 130 MW steam turbine generator, a 930,000 gallon fuel oil storage tank, a mechanical draft cooling tower, and auxiliary equipment. The facility is located southwest of the City of Fort Pierce, East of Highway 95, in St. Lucie County.

Major Regulatory Categories

Title IV: The facility operates units subject to the acid rain provisions of the Clean Air Act.

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

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

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

Proposed Project

Applicable Regulations.

This air construction permit modification updates the specific conditions of PSD-FL-353 for the combined cycle unit by removing obsolete references to NSPS Subparts GG and Da, and appropriately rewording or adding applicable emissions unit specific conditions based on U.S. EPA newly adopted NSPS Subpart KKKK regulations (Requirements for Gas Turbines and Duct Burners).

Excess Emissions Allowed Time Frame.

The applicant requested a change in the excess emissions allowed specific condition for the combined cycle unit from "any 24-hour period" to "a 24-hour block". The origin of the request to change to a 24-hour block was to make tracking and complying with the permit's limits on allowed excess emissions logistically convenient for FMPA and its plant staff, and to make such compliance and tracking consistent with the FMPA Cane Island Power Park Unit 4 permit, which allows 24-hour blocks.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Heat Input During Natural Gas Firing.

FMPA also requested additional changes to be made to the air construction permit for the TCEC as a result of performance testing and operational issues. Based on the performance testing on Unit 1, it was determined by the applicant that there has been a 6.3 percent nominal increase in the rated heat input of the combustion turbine generator (CTG) while firing natural gas.

The new maximum rated heat input is 1,900 million British thermal units per hour (MMBtu/hr), based on a compressor inlet air temperature of 59° F, the higher heating value (HHV) of the fuel, and 100 percent load. Currently the permit lists a maximum heat input rate of 1,787 MMBtu/hr. The applicant used the new maximum heat input value of 1,900 MMBtu/hr to calculate new pounds per hour (lb/hr) emissions and subsequently new potential ton per year (tpy) emissions from Unit 1 for use in a PSD applicability analysis.

As shown below under the PSD Applicability Analysis paragraph, on a potential-to-potential basis (the facility has less than 2 years of operating history), the increase in emissions due to the increased heat input is less than the PSD significance thresholds and is therefore considered a minor change to the permit. There are no changes to the fuel oil firing cases.

Cycles of Concentration for the Cooling Tower.

FMPA is also requesting an increase in the cycles of concentration for the 8-cell cooling tower in order to maximize water use. This would potentially increase the total dissolved solids (TDS) loading from 5,331 parts per million (ppm) to 7,217 ppm, and thus result in an increase in the particulate matter (PM) emission rate. The cooling tower is already operating at the best available control technology (BACT) drift rate of 0.0005 percent and this will not change going forward.

Although total PM emissions will increase due to the new TDS concentration, no permit change is needed since the new PM tpy emission rate is still within the PM value given in the permitting note for the cooling tower (EU003). However, although the actual TDS value of 5,331 ppm is not a limit in the current permit, the value was provided in the air construction permit application. Therefore, the applicant included new total PM emissions estimates in the PSD applicability analysis discussed below.

PSD Applicability Analysis.

As discussed above, the applicant used the new maximum heat input value of 1,900 MMBtu/hr to calculate new lb/hr emissions and subsequently new potential ton per year (tpy) emissions from Unit 1 for use in a PSD applicability analysis. As shown in the table below, on a potential-to-potential basis, the increase in emissions due to the increased heat input and TDS is less than the PSD significance thresholds and is therefore a minor change to the permit.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

	3/5/2009 Potential to Emit	1/17/2006 Potential to Emit*	Increase in Potential Emissions	PSD SEL	PSD Major Modification
Pollutant	(tpy)	(tpy)	(tpy)	(tpy)	(Yes/No)
NO_x	92.9	89.5	3.4	40	NO
СО	241.4	228.5	13.0	100	NO
PM	188.2	176.0	12.2	25	NO
PM ₁₀	181.2	171.3	9.9	15	NO
$\overline{\mathrm{SO}_2}$	60.0	56.5	3.6	40	NO
VOC	24.6	23.4	1.2	40	NO
H_2SO_4 mist	23.8	22.4	1.4	7	NO

Note: NO_x = nitrogen oxides, CO = carbon monoxide, PM = particulate matter, PM_{10} = particulate matter less than 10 micrometers, SO_2 = sulfur dioxide, VOC = volatile organic compounds, H_2SO_4 = sulfuric acid.

Based on the foregoing analysis, the project constitutes a non-major modification with respect to the Department's rules and requires a construction permit modification to implement.

2. REGULATIONS THAT APPLY TO THE PROJECT

State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.). This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code. These include: 62-4 (Permitting Requirements); 62-204 (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference); 62-210 (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms); 62-212 (Preconstruction Review, PSD Review and BACT); 62-296 (Emission Limiting Standards); and 62-297 (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures).

(DRAFT)

PERMITTEE

Florida Municipal Power Agency 8553 Commodity Circle Orlando, Florida 32819

Authorized Representative:

Edward S. Leongomez, Plant Manager

Treasure Coast Energy Center
DEP File No. 1110121-003-AC
Draft Permit No. PSD-FL-353A

SIC No. 4911

Expires: January 1, 2010

PROJECT AND LOCATION

This permit modification revises certain specific conditions of air construction permit 1110121-001-AC (PSD-FL-353) that authorized the construction of a nominal 300 megawatt (MW) gas-fired combined cycle electrical power plant at the Treasure Coast Energy Center and extends the expiration date of PSD-FL-353 from 7/31/09 to 1/1/10. The project included one 170 MW combustion turbine generator, one heat recovery steam generator, a 130 MW steam turbine generator, a fuel oil storage tank, a mechanical draft cooling tower, and auxiliary equipment. The project is located southwest of the City of Fort Pierce, East of Highway 95, in St. Lucie County.

STATEMENT OF BASIS

This air pollution construction permit modification is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Parts 60 and 63 of the Code of Federal Regulations (CFR). The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

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Section 2. Administrative Requirements

Section 3. Emissions Units Specific Conditions

Section 4. Appendices

(Draft)	
Joseph Kahn, Director Division of Air Resource Management	(Date)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

This facility is a nominal 300 megawatt (MW) gas-fired combined cycle electrical power plant. The plant includes one 170 MW combustion turbine generator, one heat recovery steam generator (HRSG), a 130 MW steam turbine generator, a 930,000 gallon fuel oil storage tank, a mechanical draft cooling tower, and auxiliary equipment. The facility is located southwest of the City of Fort Pierce, East of Highway 95, in St. Lucie County.

001	Unit 1 consists of a General Electric PG7241 FA gas turbine electrical generator (nominal 170 MW) equipped with evaporative inlet air cooling, a heat recovery steam generator (HRSG) with supplemental duct firing, a HRSG stack, and a steam turbine electrical generator (nominal 130 MW).
002	One distillate fuel oil storage tank for Unit 1 combustion turbine (930,000 gallons).
003	One 8-cell mechanical draft cooling tower.
004	One safe shutdown generator (approximately 1,102 horsepower (hp)) with associated 1000 gallon fuel oil storage tank.
005	One diesel engine fire pump (approximately 290 hp) with associated 500 gallon fuel oil storage tank.

Proposed Project

This permit modification revises certain specific conditions of air construction permit 1110121-001-AC (PSD-FL-353) that authorized the construction of a nominal 300 megawatt (MW) gas-fired combined cycle electrical power plant at the Treasure Coast Energy Center. Details are provided in the project's Technical Evaluation and Preliminary Determination.

REGULATORY CLASSIFICATION

<u>Title III</u>: The facility is not a major source of hazardous air pollutants (HAP).

<u>Title IV</u>: The facility operates units subject to the acid rain provisions of the Clean Air Act.

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

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

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

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete, and the Technical Evaluation and Preliminary Determination.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

- 1. <u>Permitting Authority</u>: The Permitting Authority for this project is the Bureau of Air Regulation in the Division of Air Resource Management of the Department. The mailing address for the Bureau of Air Regulation is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.
- 2. <u>Compliance Authority</u>: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Southeast District Office. The mailing address and phone number of the Southeast District Office are: 400 North Congress Avenue, West Palm Beach, Florida 33401, Telephone: 561/681-6600, Fax: 561/681-6755.
- 3. <u>Appendices</u>: The following Appendices are attached as part of this permit: Appendix GC (General Conditions); Appendix C (Common State Regulatory Requirements); Appendix IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines); and Appendix KKKK (Standards of Performance for Stationary Combustion Turbines).
- 4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
- 5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
- 6. <u>Modifications</u>: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

A. Unit 1 Combined Cycle Gas Turbine (EU 001)

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

EU No.	Brief Description
001	Unit 1 consists of a General Electric PG7241 FA gas turbine electrical generator (nominal 170 MW) equipped with evaporative inlet air cooling, a heat recovery steam generator (HRSG) with supplemental duct firing, a HRSG stack, and a steam turbine electrical generator (nominal 130 MW).
004	One safe shutdown generator (approximately 1,102 horsepower (hp)) with associated 1000 gallon fuel oil storage tank.
005	One diesel engine fire pump (approximately 290 hp) with associated 500 gallon fuel oil storage tank.

1. Other Permits. Except as listed below, all other conditions of existing permits remain in effect and unchanged.

This permit modification revises certain specific conditions of air construction permit 1110121-001-AC (PSD-FL-353). Note: Double <u>underline</u> indicates additions and <u>strikethrough</u> indicates deletions.

SECTION III – A. This subsection of the permit addresses EU No. 001.

- 2. Specific Condition 2. is changed as follows:
 - 2. NSPS Requirements: The combustion turbine shall comply with all applicable requirements of 40 CFR 60, listed below, adopted by reference in Rule 62-204.800(8)(b), F.A.C. The Department determines that compliance with the BACT emissions performance requirements also assures compliance with the New Source Performance Standards for Subpart Da, Subpart GG, and Subpart KKKK (as proposed). Some separate reporting and monitoring may be required by the individual subparts.
 - (a) Subpart A, General Provisions, including:
 - 40 CFR 60.7, Notification and Record Keeping
 - 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
 - (b) Subpart Da, Standards of Performance for Electric Utility Steam Generating Units These provisions include standards for duct burners.
 - (c) Subpart GG, Standards of Performance for Stationary Gas Turbines: These provisions include a requirement to correct test data to ISO conditions; however, such correction is not used for compliance determinations with the BACT standards.
 - (d) Subpart KKKK, Standards of Performance for Stationary Gas Turbines: These provisions include standards for combustion gas turbines and duct burners were published February 18, 2005 as a proposed new NSPS standard. The final rule may be applicable to Unit 1 at the time of publication in the Federal Register. When the rule becomes final, Unit 1 may no longer be subject to NSPS Subparts Da and GG.
- 3. Specific Condition 8. is changed as follows:

A. Unit 1 Combined Cycle Gas Turbine (EU 001)

- 8. Permitted Capacity Gas Turbine: The maximum heat input rate to the gas turbine is 1,787 1,900 MMBtu per hour when firing natural gas and 1,986 MMBtu per hour when firing distillate fuel oil (based on a compressor inlet air temperature of 59° F, the higher heating value (HHV) of each fuel, and 100% load). Heat input rates will vary depending upon gas turbine characteristics, ambient conditions, alternate methods of operation, and evaporative cooling. The permittee shall provide 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. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rule 62-210.200(PTE), F.A.C.]
- **4.** Specific Condition 13. is changed as follows:
- 13. Emission Standards: Emissions from the turbine/HRSG system shall not exceed the following standards.

D-11t	Fuel	Mathad of On austion	Stack Test,	CEMS Average		
Pollutant	Fuel	Method of Operation	ppmvd @ 15% O ₂	lb/hr ^f	ppmvd @ 15% O ₂	
	Oil	Combustion Turbine (CT) (w/o duct burner)	8.0	37.8		
CO ^a		CT & Duct Burner (DB)	8.0	47.3	8.0, 24-h block	
60	Gas	CT, Normal (w/o duct burner)	4.1	16.2 <u>17.2</u>		
		CT & (DB)	7.6	39.1 <u>40.1</u>		
	Oil/Gas	All Modes	NA	NA	6.0, 12-month rolling	
	Oil	CT (w/o duct burner)	8.0	62.0	8.0, 24-hr block 42, 30-day	
		CT & DB	8.0	78.0	<u>rolling^g</u>	
NO _X ^b		CT, Normal (w/o duct burner)	2.0	13.1 <u>13.9</u>	2.0, 24-hr block 15, 30-day	
	Gas	CT & DB	2.0	16.9 <u>17.7</u>	rolling ^g	
	Oil/Gas		0.0015% su	lfur fuel oil, 2 gr S/10	00 SCF of gas	
PM/PM ₁₀		All Modes	Visible emissions shall not exceed 10% opacity for each 6-minute block average.			
SAM/SO	Oil/Gas	All Modes	0.0015% sulfur fuel oil, 2 gr S/100 SCF of gas			
Ammoni a ^e	Oil/Gas	CT, All Modes	5.0	NA	NA	

a. Continuous compliance with the 24-hour and 12-month CO standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 10 tests associated with the certification and

A. Unit 1 Combined Cycle Gas Turbine (EU 001)

- quality assurance of the CEMS instruments may also be used to demonstrate compliance with the individual standards for natural gas, fuel oil, and basic duct burner mode.
- b. Continuous compliance with the 24-hr NO_X standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 7E or Method 20 tests associated with demonstration of compliance with 40 CFR 60, Subpart GG KKKK or certification and quality assurance of the CEMS instruments may also be used to demonstrate compliance with the individual standards for <u>normal</u> natural gas, fuel oil, and duct burner modes during the time of those tests. NO_x mass emission rates are defined as oxides of nitrogen expressed as nitrogen dioxide (NO₂).
- c. The fuel sulfur specifications, established in Condition No. 11 of this section, combined with the efficient combustion design and operation of the gas turbine represents (BACT) for PM/PM₁₀ emissions. Compliance with the fuel specifications, CO standards, and visible emissions standards shall serve as indicators of good combustion. Compliance with the fuel specifications shall be determined by the requirements in Condition No. 30 of this section. Compliance with the visible emissions standard shall be demonstrated by conducting tests in accordance with EPA Method 9.
- d. The fuel sulfur specifications, established in Condition No. 11 this section, effectively limit the potential emissions of SAM and SO₂ from the gas turbine and represent BACT for these pollutants. Compliance with the fuel sulfur specifications shall be determined by the requirements in Condition No. 30 of this section.
- e. The SCR system shall be designed and operated for an ammonia slip limit of no more than 5 ppmvd corrected to 15% O₂ based on the average of three test runs.
- f. The mass emission rate standards are based on a turbine inlet condition of 59°F, evaporative cooling on, and using the HHV of the fuel. Mass emission rate may be adjusted from actual test conditions in accordance with the performance curves and/or equations on file with the Department.
- g. Compliance with 40 CFR 60, NSPS, Subpart KKKK as described in 60.4380(b)(1).

[Rule 62-212.400 (BACT), F.A.C.]

- 5. Specific Condition 18. is changed as follows:
 - 18. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown, and documented malfunctions shall be permitted, provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. For the gas turbine (CTG)/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period a 24-hour block (as defined in Condition 26c): A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail.
 - a. Steam Turbine (STG)/HRSG System Cold Startup: For cold startup of the steam turbine STG/HRSG system, excess emissions from the gas turbine CTG/HRSG system shall not exceed six hours in any 24-hour period a 24-hour block. A "cold startup of the steam turbine STG/HRSG system" is defined as startup of the combined cycle system following a shutdown of the steam turbine lasting at least 48 hours.

{Permitting Note: During a cold startup of the steam turbine system, the gas turbine <u>CTG</u>/HRSG system is brought on line at low load to gradually increase the temperature of the steam-electrical turbine <u>STG</u> and prevent thermal metal fatigue}

b. Steam Turbine STG/HRSG System Warm Startup: For warm startup of the steam turbine STG/HRSG system, excess emissions shall not exceed four hours in any 24-hour period a 24-hour block. A "warm startup of the steam turbine STG/HRSG system" is defined as a startup of the

A. Unit 1 Combined Cycle Gas Turbine (EU 001)

- combined cycle system following a shutdown of the steam turbine lasting at least 8 hours and less than 48 hours.
- c. <u>STG/HRSG System Hot Startup</u>: For hot startup of the STG/HRSG system, excess emissions shall not exceed two hours in a 24-hour block. A "hot startup of the STG/HRSG system" is defined as a startup of the combined cycle system following a shutdown of the steam turbine lasting less than 8 hours.
- d. *Shutdown:* For shutdown of the combined cycle operation, excess emissions from the gas turbine <u>CTG/HRSG</u> system shall not exceed three hours in any 24-hour period a 24-hour block.
- e. Fuel Switching: Excess emissions due to oil-to-gas fuel switching shall not exceed 1 hour in any 24 hour period a 24-hour block.
- f. <u>Documented Malfunction</u>: For the CTG/HRSG system, excess emissions resulting from documented malfunctions shall not exceed two hours in a 24-hour block.
- **6.** Specific Condition 26. is changed as follows:

26. CEMS Data Requirements (for BACT limits only):

- a. Data Collection: Emissions shall be monitored and recorded at all times including startup, operation, shutdown, and malfunction except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over an hour. 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 moisture contents in the exhaust gas versus load for each allowable fuel, 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. Upon request by the Department, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332. Compliance with the emission standards of 40 CFR Part 60 Subpart KKKK is covered in Appendix KKKK.
- b. Valid Hour: Hourly average values shall begin at the top of each hour. 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. Notwithstanding this requirement, an hourly value shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). If less than two such data points are available, the hourly average value is not valid. An hour in which any oil is fired is attributed towards compliance with the permit standards for oil firing. The permittee shall use all valid measurements or data points collected during an hour to calculate the hourly average values.
- c. 24-hour Block Averages: A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of all available valid hourly average emission rate values for the 24-hour block. For purposes of determining compliance with the 24-hour CEMS standards, the missing data substitution methodology of 40 CFR part 75,

A. Unit 1 Combined Cycle Gas Turbine (EU 001)

subpart D, shall not be utilized. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. [Rule 62-212.400(BACT), F.A.C.]

{Permitting Note: There may be more than one 24-hour compliance demonstration required for CO and NO_x emissions depending on the use of alternate methods of operation}

- d. 12-month Rolling Averages: Compliance with the long-term emission limit for CO shall be based on a 12-month rolling average. Each 12-month rolling average shall be the arithmetic average of all valid hourly averages collected during the current calendar month and the previous 11 calendar months
- e. Data Exclusion: Each CEMS shall monitor and record emissions during all operations including episodes of startup, shutdown, malfunction, fuel switches and DLN tuning. Some of the CEMS emissions data recorded during these episodes may be excluded from the corresponding CEMS compliance demonstration subject to the provisions of Condition Nos. 18 and 20 of this section. All periods of data excluded shall be consecutive for each such episode and only data obtained during the described episodes (startup, shutdown, malfunction, fuel switches, DLN tuning) may be used for the appropriate exclusion periods. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable. Data recorded during such episodes shall not be excluded if the episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented. Best operational practices shall be used to minimize hourly emissions that occur during such episodes. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited.
- f. Availability: Monitor availability for the CEMS shall be 95% or greater in any calendar quarter. The quarterly excess emissions report shall be used to demonstrate monitor availability. 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, except as otherwise authorized by the Department's Compliance Authority.

[Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

7. Specific Condition 32. is changed as follows:

32. 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 Quarterly Report: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of CO and NOx emissions in excess of the BACT permit standards following the NSPS format in 40 CFR 60.7(c), Subpart A. Periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. In addition, the report shall summarize the CEMS systems monitor availability for the previous quarter.

A. Unit 1 Combined Cycle Gas Turbine (EU 001)

c. NSPS Semi-Annual Excess Emissions Reports: For purposes of reporting emissions in excess of NSPS Subpart GG, excess emissions from the gas turbine are defined as: any operating hour in which the CEMS 4-hr rolling average NOx concentration exceeds the NSPS NOx emissions standard identified in Appendix GG; and any monitoring period during which the sulfur content of the fuel being fired in the gas turbine exceeds the NSPS standard identified in Appendix GG. For purposes of reporting emissions in excess of NSPS Subpart Da, excess emissions from duct firing are defined as: NOx or PM emissions in excess of the NSPS standards except during periods of startup, shutdown, or malfunction; and SO2 emissions in excess of the NSPS standards except during startup or shutdown. Within thirty (30) days following each calendar semi-annual period, the permittee shall submit a report on any periods of excess emissions above the applicable NSPS limit that occurred during the previous semi-annual period to the Compliance Authority. This also includes reporting any periods of excess emissions as applicable and defined by NSPS Subpart KKKK when the rule is finalized.

{Note: If there are no periods of excess emissions as defined in NSPS Subparts GG, Da, or KKKK, a statement to that effect may be submitted with the SIP Quarterly Report to suffice for the NSPS Semi-Annual Report.}

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7, and 60.332(j)(1)]

- **8.** Specific Condition 33 is changed as follows:
 - 33. <u>Annual Operating Report</u>: The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility. The permittee shall also keep records sufficient to determine the annual throughput of distillate fuel oil for the fuel oil storage tank for use in the Annual Operating Report. Annual operating reports shall be submitted to the Compliance Authority by <u>March April</u> 1st of each year. [Rule 62-210.370(3), F.A.C.]

D. Unit 4 Safe Shutdown Generator (EU 004)

SECTION III - D.

This subsection of the permit addresses the following emissions unit.

ID	Emission Unit Description
004	One safe shutdown generator (approximately 1,525 102 hp) with associated 1000 gallon fuel oil storage tank.

9. The description of this emission unit is changed as follows:

NSPS APPLICABILITY

NSPS Subpart IIII Applicability: The emergency safe shutdown generator is a Stationary Compression Ignition Internal Combustion Engines (Stationary ICE) and may be is subject to 40 CFR 60, Subpart IIII at the time the proposed rule becomes final.

The emergency generator shall comply with 40 CFR 60, Subpart IIII only to the extent that the regulations apply to the emissions unit and its operations.

[40 CFR 60, NSPS-Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; Proposed Rule-Federal Register / Vol. 70, No. 131 / July 11, 2005. Pages 39869 — 39904]

E. Unit 5 Diesel Engine Fire Pump (EU 005)

SECTION III - E

This subsection of the permit addresses the following emissions unit.

ID	Emission Unit Description
005	One diesel engine fire pump (approximately 300 290 hp) with associated 500 gallon fuel oil storage tank.

10. The description of this emissions unit is changed as follows:

NSPS APPLICABILITY

NSPS Subpart IIII Applicability: This fire pump engine is an Emergency Stationary Compression Ignition Internal Combustion Engines (Stationary ICE) and may be is subject to 40 CFR 60, Subpart IIII at the time the proposed rule becomes final.

The fire pump engine It shall comply with 40 CFR 60, Subpart IIII only to the extent that the regulations apply to the emission unit and its operations (e.g., fire pumps, horsepower, and model year selected).

[40 CFR 60, NSPS-Subpart III] - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; Proposed Rule - Federal Register / Vol. 70, No. 131 / July 11, 2005. Pages 39869 39904]

EQUIPMENT SPECIFICATIONS

- 11. Specific Condition 1 in this subsection is changed as follows:
 - 1. <u>Fire Pump</u>: The permittee is authorized to install, operate, and maintain one diesel engine driven fire pump (approximately 300 290 hp) with associated 500 gallon fuel oil storage tank. The diesel engine fire pump will fire ULS fuel oil. [Application; Design]

SECTION IV - APPENDICES

The following Appendices are attached as part of this permit:

Appendix C - Common State Regulatory Requirements.

Appendix GC - General Conditions.

Appendix NSPS IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Appendix NSPS KKKK - Standards of Performance for Stationary Combustion Turbines.

SECTION IV. APPENDIX C

COMMON STATE REGULATORY REQUIREMENTS

{Permitting Note: Unless otherwise specified by permit, the following conditions apply to all emissions units and activities at the facility.}

EMISSIONS AND CONTROLS

- 1. <u>Plant Operation Problems</u>: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future 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 the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
- 2. <u>Circumvention</u>: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
- 3. 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.]
- 4. 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.]
- 5. Excess Emissions Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
- 6. <u>VOC or OS Emissions</u>: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
- 7. 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. [Rules 62-296.320(2) and 62-210.200(217), F.A.C.]
- 8. <u>General Visible Emissions</u>: 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 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
- 9. <u>Unconfined Particulate Emissions</u>: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

10. 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.]

SECTION IV. APPENDIX C

COMMON STATE REGULATORY REQUIREMENTS

- 11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. 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. [Rule 62-297.310(2), F.A.C.]
- 12. <u>Calculation of Emission Rate</u>: 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.]
- 13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
 - a. Required Sampling Time. 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. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
 - 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. 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.

[Rule 62-297.310(4), F.A.C.]

14. 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.]

- 15. <u>Sampling Facilities</u>: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
- 16. <u>Test Notification</u>: 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. [Rule 62-297.310(7)(a)9, F.A.C.]
- 17. 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 in a 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. [Rule 62-297.3 10(7)(b), F.A.C.]
- 18. Test Reports: 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. 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. 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:

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- 1. The type, location, and designation of the emissions unit tested.
- 2. The facility at which the emissions unit is located.
- 3. The owner or operator of the emissions unit.
- 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
- 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
- 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
- 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
- 8. The date, starting time and duration of each sampling run.
- 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
- 10. The number of points sampled and configuration and location of the sampling plane.
- 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
- 12. The type, manufacturer and configuration of the sampling equipment used.
- 13. Data related to the required calibration of the test equipment.
- 14. Data on the identification, processing and weights of all filters used.
- 15. Data on the types and amounts of any chemical solutions used.
- 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
- 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
- 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
- 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
- 20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
- 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who 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.]

RECORDS AND REPORTS

- 19. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
- 20. 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 March 1st of each year May 1st for 2009 and April 1st of each year thereafter. [Rule 62-210.370(23), F.A.C.]

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GENERAL PERMIT CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

- 1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. 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.
- 2. 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.
- 3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, 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 or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- 4. 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.
- 5. 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 Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or 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.
- 7. 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 a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. 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.

- 8. 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:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

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.

9. 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 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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GENERAL PERMIT CONDITIONS

- 10. 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.
- 11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, 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.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (not applicable to project);
 - b. Determination of Prevention of Significant Deterioration (not applicable to project); and
 - c. Compliance with New Source Performance Standards (not applicable to project).
- 14. The permittee shall comply with the following:
 - 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 or this permit. These materials shall be retained at least three 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;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses:
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
- 15. 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 that 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.

STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

Updated 7/19/06- EFFECTIVE 9/11/06

Source Federal Register Dated 7/11/06

Subpart IIII--Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

What This Subpart Covers

60.4200 Am I subject to this subpart?

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?

60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

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?

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?

60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion 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?

Other Requirements for Owners and Operators

60.4208 What is the deadline for importing and installing stationary CI ICE produced in the previous model year? **60.4209** What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

Compliance Requirements

60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer? 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

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?

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?

Notification, Reports, and Records for Owners and Operators

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60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

Special Requirements

60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

60.4216 What requirements must I meet for engines used in Alaska?

60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

General Provisions

60.4218 What parts of the General Provisions apply to me?

Definitions

60.4219 What definitions apply to this subpart?

Tables to Subpart IIII of Part 60

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

Table 2 to Subpart IIII of Part 60--Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE < 37 KW (50 HP) and with a Displacement of < 10 liters per cylinder

Table 3 to Subpart IIII of Part 60--Certification Requirements for Stationary Fire Pump Engines

Table 4 to Subpart IIII of Part 60--Emission Standards for Stationary Fire Pump Engines

Table 5 to Subpart IIII of Part 60--Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

Table 6 to Subpart IIII of Part 60--Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

Table 7 to Subpart IIII of Part 60--Requirements for Performance Tests for Stationary CI ICE with a displacement of >=30 liters per cylinder

Table 8 to Subpart IIII of Part 60--Applicability of General Provisions to Subpart IIII

Sec. 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.

STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

- (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.

Sec. 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 1039.105, 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 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.

Sec. 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):

STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

- (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.

Sec. 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 Sec. Sec. 60.4201 and 60.4202 during the useful life of the engines.

Sec. 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).
- (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 Sec. 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.

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- (1) Reduce nitrogen oxides (NOX) emissions by 90 percent or more, or limit the emissions of NOX 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).

Sec. 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 Sec. 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 NOX emissions by 90 percent or more, or limit the emissions of NOX 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).

Sec. 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 Sec. Sec. 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.

Sec. 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

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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 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 Sec. 60.4200(d) are also exempt from the fuel requirements in this section.

Sec. 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 Sec. Sec. 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.

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Sec. 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 Sec. 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 Sec. 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.

Sec. 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 Sec. 60.4201(a) through (c) and Sec. 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 Sec. 60.4201(d) and Sec. 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.

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- (ii) Stationary CI internal combustion engines that meet Tier 1 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 1 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 1 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.
- (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 Sec. 60.4202 but does not meet all the emission standards for non-emergency engines in Sec. 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".

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- (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 Sec. Sec. 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.

Sec. 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 Sec. Sec. 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 Sec. 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.
- (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 Sec. 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 Sec. 60.4204(b) or Sec. 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 Sec. 60.4205(c), you must comply by purchasing an engine certified to the emission standards in Sec. 60.4204(b), or Sec. 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.

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- (d) If you are an owner or operator and must comply with the emission standards specified in Sec. 60.4204(c) or Sec. 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 Sec. 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 NOX 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 NOX 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 Sec. 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 meeting standards under Sec. 60.4205 but not Sec. 60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

Sec. 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.

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(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:

NTE requirement for each pollutant =
$$(1.25) \times (STD)$$
 (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 Sec. 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 Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c), determined from the equation in paragraph (c) of this section. Where:

STD = The standard specified for that pollutant in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c) may follow the testing procedures specified in Sec. 60.4213, as appropriate.

Sec. 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 Sec. 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 Sec. 60.8(c).
- (c) You must conduct three separate test runs for each performance test required in this section, as specified in Sec. 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:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad (Eq. 2)$$

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Where:

Ci = concentration of NOX or PM at the control device inlet,

Co = concentration of NOX or PM at the control device outlet, and

R = percent reduction of NOX or PM emissions.

(2) You must normalize the NOX or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO2) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_s}$$
 (Eq. 3)

Where:

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2.

Cd = Measured concentration of NOX or PM, uncorrected.

5.9 = 20.9 percent O2-15 percent O2, the defined O2 correction value, percent.

%O2 = Measured O2 concentration, dry basis, percent.

- (3) If pollutant concentrations are to be corrected to 15 percent O2 and CO2 concentration is measured in lieu of O2 concentration measurement, a CO2 correction factor is needed. Calculate the CO2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.
- (i) Calculate the fuel-specific Fo value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209_{\mu_q}}{F_c}$$
 (Eq. 4)

Where:

Fo = Fuel factor based on the ratio of O2 volume to the ultimate CO2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O2, percent/100.

Fd = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

Fc = Ratio of the volume of CO2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($dscf/10^6$ Btu).

(ii) Calculate the CO2 correction factor for correcting measurement data to 15 percent O2, as

follows:

$$X_{co_2} = \frac{5.9}{F_c}$$
 (Eq. 5)

Where:

XCO2 = CO2 correction factor, percent.

5.9 = 20.9 percent O2-15 percent O2, the defined O2 correction value, percent.

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(iii) Calculate the NOX and PM gas concentrations adjusted to 15 percent O2 using CO2 as

follows:

$$C_{adj} = C_d \frac{X_{Co_2}}{\%CO_2}$$
 (Eq. 6)

Where:

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2.

Cd = Measured concentration of NOX or PM, uncorrected.

%CO2 = Measured CO2 concentration, dry basis, percent.

(e) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW-hour}$$
 (Eq. 7)

Where:

ER = Emission rate in grams per KW-hour.

Cd = Measured NOX concentration in ppm.

 1.912×10^{-3} = Conversion constant for ppm NOX 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:

$$ER = \frac{C_{adj} \times Q \times T}{KW-hour} \qquad (Eq. 8)$$

Where:

ER = Emission rate in grams per KW-hour.

Cadj = 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.

Sec. 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.

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- (1) Submit an initial notification as required in Sec. 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;
 - (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.

Sec. 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 Sec. 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 Sec. 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 Sec. 60.4207.

Sec. 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

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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.

Sec. 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

(a) Owners and operators of stationary CI ICE that do not use diesel fuel, or who have been given authority by the Administrator under Sec. 60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of Sec. 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 Sec. 60.4202 or Sec. 60.4203 using such fuels.

(b) [Reserved]

Sec. 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in Sec. Sec. 60.1 through 60.19 apply to you.

Sec. 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.

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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 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 IIII.

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).

Tables to Subpart IIII of Part 60

TABLE 1 TO SUBPART IIII OF PART 60.—EMISSION STANDARDS FOR STATIONARY PRE-2007 MODEL YEAR ENGINES WITHA 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 + NOX HC NOX CO PM

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KW<8 (HP<11)	10.5 (7.8)	N/A	N/A	8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)	N/A	N/A	6.6 (4.9)	0.80(.060)
19≤KW<37 (25≤HP<50)	9.5 (7.1)	N/A	N/A	5.5 (4.1)	0.80(.060)
37≤KW<56 (50≤HP<75)	N/A	N/A	9.2 (6.9)	N/A	N/A
56≤KW<75 (75≤HP<100)	N/A	N/A	9.2 (6.9)	N/A	N/A
75≤KW<130 (100≤HP<175)	N/A	N/A	9.2 (6.9)	N/A	N/A
130≤KW<225 (175≤HP<300)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)	N/A	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 EMERGENCYSTATIONARY 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 Cl ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)

			(6)	
	Model	NOX+	co	PM
	year(s)	NMHC		
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)< td=""><td>2008+</td><td>7.5 (5.6)</td><td>5.5 (4.1)</td><td>0.30 (0.22)</td></hp<50)<>	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)
(25≤HP<50)				

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)</td>
 2011

 75≤KW<130 (100≤HP<175)</td>
 2010

 130≤KW≤560 (175≤HP≤750)
 2009

 KW>560 (HP>750)
 2008

Treasure Coast Energy Center Combined-Cycle Gas Turbine Air Permit No. 1110121-003-AC PSD-FL-353A PSD Permit Modification

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TABLE 4 TO SUBPART IIII OF PART 60.—EMISSION STANDARDS FOR STATIONARY FIRE PUMP ENGINES

	NMHC + NOx	CO	PM
2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (.75)
2011+	7.5 (5.6)	n/a	0.40 (0.30)
2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
2011+	7.5 (5.6)	n/a	0.40 (0.30)
2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
2011+	7.5 (5.6)	n/a	0.30 (0.22)
2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
2011+1	4.7 (3.5)	n/a	0.40 (0.30)
2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
2011+1	4.7 (3.5)	n/a	0.40 (0.30)
2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
2010+2	6.4 (4.8)	n/a	0.30 (0.22)
2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
2009+3	6.4 (4.8)	n/a	0.20 (0.15)
2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
2009+3	6.4 (4.8)	n/a	0.20 (0.15)
2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
2009+	6.4 (4.8)	n/a	0.20 (0.15)
2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
2008+	6.4 (4.8)	n/a	0.20 (0.15)
	2011+ 2010 and earlier 2011+ 2010 and earlier 2011+ 2010 and earlier 2011+1 2010 and earlier 2011+1 2010 and earlier 2011+1 2009 and earlier 2010+2 2008 and earlier 2009+3 2008 and earlier 2009+3 2008 and earlier 2009+4 2007 and earlier	2011+ 7.5 (5.6) 2010 and earlier 9.5 (7.1) 2011+ 7.5 (5.6) 2010 and earlier 9.5 (7.1) 2011+ 7.5 (5.6) 2010 and earlier 10.5 (7.8) 2011+1 4.7 (3.5) 2010 and earlier 10.5 (7.8) 2011+1 4.7 (3.5) 2009 and earlier 10.5 (7.8) 2010+2 6.4 (4.8) 2008 and earlier 10.5 (7.8) 2009+3 6.4 (4.8) 2008 and earlier 10.5 (7.8) 2009+3 6.4 (4.8) 2008 and earlier 10.5 (7.8) 2009+3 6.4 (4.8) 2008 and earlier 10.5 (7.8) 2009+4 6.4 (4.8) 2009 and earlier 10.5 (7.8)	2011+ 7.5 (5.6) n/a 2010 and earlier 9.5 (7.1) 6.6 (4.9) 2011+ 7.5 (5.6) n/a 2010 and earlier 9.5 (7.1) 5.5 (4.1) 2011+ 7.5 (5.6) n/a 2010 and earlier 10.5 (7.8) 5.0 (3.7) 2011+1 4.7 (3.5) n/a 2010 and earlier 10.5 (7.8) 5.0 (3.7) 2011+1 4.7 (3.5) n/a 2009 and earlier 10.5 (7.8) 5.0 (3.7) 2010+2 6.4 (4.8) n/a 2008 and earlier 10.5 (7.8) 3.5 (2.6) 2009+3 6.4 (4.8) n/a 2008 and earlier 10.5 (7.8) 3.5 (2.6) 2009+3 6.4 (4.8) n/a 2008 and earlier 10.5 (7.8) 3.5 (2.6) 2009+4 6.4 (4.8) n/a 2008 and earlier 10.5 (7.8) 3.5 (2.6) 2009+6 6.4 (4.8) n/a 2008 and earlier 10.5 (7.8) 3.5 (2.6)

¹ For model years 2011–2013, manufacturers, owners and operators of fire pump stationary Cl 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.

TABLE 5 TO SUBPART IIII OF PART 60.—LABELING AND RECORDKEEPING REQUIREMENTS FOR NEW STATIONARYEMERGENCY 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≤K W<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:]

² For 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.

³ In 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.

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Mode No.	Engine Speed1	Torque (percent)2	Weighting Factors
1	Rated	100	.030
2	Rated	75	0.50
3	Rated	50	0.20

TABLE 7 TO SUBPART IIII OF PART 60.—REQUIREMENTS FOR PERFORMANCE TESTS FOR STATIONARY CI ICE WITH ADISPLACEMENT OF ≥30 LITERS PER CYLINDER

[As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary C! ICE with a displacement of ≥30 liters per

cylinder:]		you must comply with the following requirements for performance tests for stationary CF ICE with a displacent			
For Each		Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary C	l internal	a. Reduce NOX	i. Select the sampling	(1) Method 1 or 1A of	(a) Sampling sites must
combustion eng	gine with	emissions by 90 percent or more.	port location and the number of traverse	40 CFR part 60, appendix A.	be located at the inlet and outlet of the control
a displacement liters per cylind			points;		device.
			ii. Measure O2 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 O2 concentration must be made at the same time as the measurements
					for NOX 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, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	(c) Measurements to determine moisture content must be made at the same time as the measurements for NOX concentration.
		iv. Measure NOX at the	(4) Method 7E of 40	(d) NOX concentration	
			inlet and outlet of the	CFR part 60, appendix A, Method 320 of 40	must be at 15 percent
			control device.	CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	O2, dry basis. Results of this test consist of the average of the three 1- hour or longer runs.
		b. Limit the concentration of NOX 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 O2 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 O2 concentration must be made at the same time as the measurement for NOX concentration.
			iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location;	(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	(c) Measurements to determine moisture content must be made at the same time as the measurement for NOX concentration.

¹ Engine speed: ±2 percent of point.
2 Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

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	and,	reference, see § 60.17).	
	iv. Measure NOX at the	(4) Method 7E of 40	(d) NOX concentration
	exhaust of the	CFR part 60, appendix A, Method 320 of 40	must be at 15 percent
	stationary internal combustion engine.	CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see § 60.17).	O2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
c. Reduce PM emissions by 60 percent or more.	i. Select the sampling port location and the number of traverse points;	(1) Method I 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 O2 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 O2 concentration must be made at the same time as the measurements
			for PM concentration.
	iii. If necessary, measure moisture	(3) Method 4 of 40 CFR part 60, appendix	(c) Measurements to determine and moisture
	content at the inlet and outlet of the control	Α.	content must be made
	device; and		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 O2, 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 IA 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 O2 concentration of the	(2) Method 3, 3A, or 3B of	(b) Measurements to determine O2
	stationary internal combustion engine exhaust at the sampling	40 CFR part 60, appendix	concentration must be made at the same time as the measurements
	port location; and	Α.	for PM concentration.
	iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the	(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
	sampling port location;		concentration.
	and		(1) 201
	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 O2, dry basis. Results of this test consist of the average of the three

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1-hour or longer runs.

TABLE 8 TO SUBPART IIII OF PART 60.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART

Applies to Explanation

subpart citation § 60.1 General applicability of the General yes Provisions § 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 yes modification § 60.6 Review of plans yes § 60.7 Notification and Recordkeeping Except that § 60.7 only applies as specified in § yes .8 only applies to stationary CI placement of (≥30 liters per ines that are not certified. e specified in subpart IIII.

	· ·		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 IIII.
§ 60.12	Circumvention	yes	
§ 60.13	Monitoring requirements	yes	Except that \S 60.13 only applies to stationary CI ICE with a displacement of (\ge 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	

[As stated in § 60.4218, you must comply with the following applicable General Provisions:]

General Provisions Subject of citation

STANDARDS OF PERFORMANCE FOR STATIONARY COMBUSTION TURBINES

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 6, 2006

State Rule Effective Date: January 8, 2007

40 CFR Part 60, Subpart KKKK—Standards of Performance for Stationary Combustion Turbines

Source: 71 FR 38497, July 6, 2006, unless otherwise noted.

INTRODUCTION

§ 60.4300 What is the purpose of this subpart?

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. Any additional heat input to associated heat recovery steam generators (HRSG) or duct burners should not be included when determining your peak heat input. However, this subpart does apply to emissions from any associated HRSG and duct burners.
- (b) Stationary combustion turbines regulated under this subpart are exempt from the requirements of subpart GG of this part. Heat recovery steam generators and duct burners regulated under this subpart are exempted from the requirements of subparts Da, Db, and Dc of this part.

§ 60.4310 What types of operations are exempt from these standards of performance?

- (a) Emergency combustion turbines, as defined in §60.4420(i), are exempt from the nitrogen oxides (NO_X) emission limits in §60.4320.
- (b) Stationary combustion turbines engaged by manufacturers in research and development of equipment for both combustion turbine emission control techniques and combustion turbine efficiency improvements are exempt from the NO_X emission limits in §60.4320 on a case-by-case basis as determined by the Administrator.
- (c) Stationary combustion turbines at integrated gasification combined cycle electric utility steam generating units that are subject to subpart Da of this part are exempt from this subpart.
- (d) Combustion turbine test cells/stands are exempt from this subpart.

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)?

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- (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. If your turbine is located in Alaska, you do not have to comply with the requirements in paragraph (a) of this section until January 1, 2008.
 - (1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂in 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) If your turbine is located in a noncontinental area or a continental area that the Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit, you must comply with one or the other of the following conditions:
 - (1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂in excess of 780 ng/J (6.2 lb/MWh) gross output, or
 - (2) You must not burn in the subject stationary combustion turbine any fuel which contains total sulfur with potential sulfur emissions in excess of 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

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) When an affected unit with heat recovery utilizes a common steam header with one or more combustion turbines, the owner or operator shall either:
 - (1) 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 heat recovery unit; or
 - (2) Develop, demonstrate, and provide information satisfactory to the Administrator on methods for apportioning the combined gross energy output from the heat recovery unit for each of the affected combustion turbines. 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 related under this part.

MONITORING

§ 60.4335 How do I demonstrate compliance for NO_X if I use water or steam injection?

STANDARDS OF PERFORMANCE FOR STATIONARY COMBUSTION TURBINES

- (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); and
 - (2) For units complying with the output-based standard, install, calibrate, maintain, and operate a fuel flow meter (or flow meters) to continuously measure the heat input to the affected unit; and
 - (3) For units complying with the output-based standard, install, calibrate, maintain, and operate a watt meter (or meters) to continuously measure the gross electrical output of the unit in megawatt-hours; and
 - (4) For combined heat and power units complying with the output-based standard, install, calibrate, maintain, and operate meters for useful recovered energy flow rate, temperature, and pressure, to continuously measure the total thermal energy output in British thermal units per hour (Btu/h).

§ 60.4340 How do I demonstrate continuous compliance for NO_X if I do not use water or steam injection?

- (a) If you are not using water or steam injection to control NO_X emissions, you must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NO_X emission result from the performance test is less than or equal to 75 percent of the NO_X emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_X emission limit for the turbine, you must resume annual performance tests.
- (b) As an alternative, you may install, calibrate, maintain and operate one of the following continuous monitoring systems:
 - (1) Continuous emission monitoring as described in §§60.4335(b) and 60.4345, or
 - (2) Continuous parameter monitoring as follows:
 - (i) For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, you must define parameters indicative of the unit's NO_X formation characteristics, and you must monitor these parameters continuously.
 - (ii) For any lean premix stationary combustion turbine, you must continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO_X mode.
 - (iii) For any turbine that uses SCR to reduce NO_X emissions, you must continuously monitor appropriate parameters to verify the proper operation of the emission controls.
 - (iv) For affected units that are also regulated under part 75 of this chapter, with state approval you can monitor the NO_X emission rate using the methodology in appendix E to part 75 of this chapter, or the low mass emissions methodology in §75.19, the requirements of this paragraph (b) may be met by performing the parametric monitoring described in section 2.3 of part 75 appendix E or in §75.19(c)(1)(iv)(H).

§ 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_xCEMS 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.

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- (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 O₂concentration exceeds 19.0 percent O₂(or the hourly average CO₂concentration is less than 1.0 percent CO₂), a diluent cap value of 19.0 percent O₂or 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.
 - Permitting Note: Based on correspondence with EPA's Office of Air Quality and Planning Standards, this requirement should have been removed when NSPS Subpart KKKK was revised to add concentration-based standards (ppmvd corrected to 15% oxygen) in addition to the output-based standards (lb/MWh). The regulation is currently under reconsideration for several issues. In the mean time, EPA states that the intent is to allow sources complying with the optional concentration-based standards to correct to 15% oxygen.
- (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.
- (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:

$$E = \frac{(NO_x)_b * (HI)_b}{P} \qquad (Eq. 1)$$

Where:

 $E = hourly NO_X$ emission rate, in lb/MWh,

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 $(NO_X)_h$ = 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.
- (2) For combined-cycle and combined heat and power complying with the output-based standard, use Equation 1 of this subpart, except that the gross energy output is calculated as the sum of the total electrical and mechanical energy generated by the combustion turbine, the additional electrical or mechanical energy (if any) generated by the steam turbine following the heat recovery steam generator, and 100 percent of the total useful thermal energy output that is not used to generate additional electricity or mechanical output, expressed in equivalent MW, as in the following equations:

$$P = (Pe) + (Pe) + Ps + Po$$
 (Eq. 2)

Where:

P = gross energy output of the stationary combustion turbine system in MW.

(Pe)_t = electrical or mechanical energy output of the combustion turbine in MW,

(Pe)_c = electrical or mechanical energy output (if any) of the steam turbine in MW, and

$$Ps = \frac{Q * H}{3.413 \times 10^6 \text{ Btu/MWh}}$$
 (Eq. 3)

Where:

Ps = useful thermal energy of the steam, measured relative to ISO conditions, not used to generate additional electric or mechanical output, in MW,

Q = measured steam flow rate in lb/h,

H = enthalpy of the steam at measured temperature and pressure relative to ISO conditions, in Btu/lb, and 3.413 x 10₆= conversion from Btu/h to MW.

Po = other useful heat recovery, measured relative to ISO conditions, not used for steam generation or performance enhancement of the combustion turbine.

(3) For mechanical drive applications complying with the output-based standard, use the following equation:

$$E = \frac{(NO_x)_{m}}{BL + AL} \qquad (Eq. 4)$$

Where:

 $E = NO_X$ emission rate in lb/MWh,

 $(NO_X)_m = NO_X$ emission rate in lb/h,

BL = manufacturer's base load rating of turbine, in MW, and

AL = actual load as a percentage of the base load.

- (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) For combined cycle and combined heat and power units with heat recovery, use the calculated hourly average emission rates from paragraph (f) of this section to assess excess emissions on a 30 unit operating day rolling average basis, as described in §60.4380(b)(1).

§ 60.4355 How do I establish and document a proper parameter monitoring plan?

(a) The steam or water to fuel ratio or other parameters that are continuously monitored as described in §§60.4335 and 60.4340 must be monitored during the performance test required under §60.8, to establish acceptable values and ranges.

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You may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. You must develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO_X emission controls. The plan must:

- (1) Include the indicators to be monitored and show there is a significant relationship to emissions and proper operation of the NO_x emission controls,
- (2) Pick ranges (or designated conditions) of the indicators, or describe the process by which such range (or designated condition) will be established,
- (3) Explain the process you will use to make certain that you obtain data that are representative of the emissions or parameters being monitored (such as detector location, installation specification if applicable),
- (4) Describe quality assurance and control practices that are adequate to ensure the continuing validity of the data,
- (5) Describe the frequency of monitoring and the data collection procedures which you will use (e.g., you are using a computerized data acquisition over a number of discrete data points with the average (or maximum value) being used for purposes of determining whether an exceedance has occurred), and
- (6) Submit justification for the proposed elements of the monitoring. If a proposed performance specification differs from manufacturer recommendation, you must explain the reasons for the differences. You must submit the data supporting the justification, but you may refer to generally available sources of information used to support the justification. You may rely on engineering assessments and other data, provided you demonstrate factors which assure compliance or explain why performance testing is unnecessary to establish indicator ranges. When establishing indicator ranges, you may choose to simplify the process by treating the parameters as if they were correlated. Using this assumption, testing can be divided into two cases:
 - (i) All indicators are significant only on one end of range (e.g., for a thermal incinerator controlling volatile organic compounds (VOC) it is only important to insure a minimum temperature, not a maximum). In this case, you may conduct your study so that each parameter is at the significant limit of its range while you conduct your emissions testing. If the emissions tests show that the source is in compliance at the significant limit of each parameter, then as long as each parameter is within its limit, you are presumed to be in compliance.
 - (ii) Some or all indicators are significant on both ends of the range. In this case, you may conduct your study so that each parameter that is significant at both ends of its range assumes its extreme values in all possible combinations of the extreme values (either single or double) of all of the other parameters. For example, if there were only two parameters, A and B, and A had a range of values while B had only a minimum value, the combinations would be A high with B minimum and A low with B minimum. If both A and B had a range, the combinations would be A high and B high, A low and B low, A high and B low, A low and B high. For the case of four parameters all having a range, there are 16 possible combinations.
- (b) For affected units that are also subject to part 75 of this chapter and that have state approval to use the low mass emissions methodology in §75.19 or the NO_X emission measurement methodology in appendix E to part 75, you may meet the requirements of this paragraph by developing and keeping on-site (or at a central location for unmanned facilities) a QA plan, as described in §75.19(e)(5) or in section 2.3 of appendix E to part 75 of this chapter and section 1.3.6 of appendix B to part 75 of this chapter.

§ 60.4360 How do I determine the total sulfur content of the turbine's combustion fuel?

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 SO_2/J (0.060 lb $SO_2/MMBtu$) heat input for units located in continental areas and 180 ng SO_2/J (0.42 lb $SO_2/MMBtu$) heat input for units located in noncontinental areas or a continental area that the

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Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. 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 and 0.4 weight percent (4,000 ppmw) or less for noncontinental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and 140 grains of sulfur or less per 100 standard cubic feet for noncontinental areas, has potential sulfur emissions of less than less than 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for noncontinental 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 or 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for noncontinental 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.
 - (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.

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- (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 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 or 30-day 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

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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. For the purposes of this subpart, a "30-day rolling average NO_X emission rate" is the arithmetic average of all hourly NO_X emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_X emissions rates for the preceding 30 unit operating days if a valid NO_X emission rate is obtained for at least 75 percent of all operating 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 O₂concentration, 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) For turbines required to monitor combustion parameters or parameters that document proper operation of the NO_X emission controls:
 - (1) An excess emission is a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.
 - (2) A period of monitor downtime is a unit operating hour in which any of the required parametric data are either not recorded or are invalid.

§ 60.4385 How are excess emissions and monitoring downtime defined for SO_2 ?

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 and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, 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?

- (a) If you operate an emergency combustion turbine, you are exempt from the NO_X limit and must submit an initial report to the Administrator stating your case.
- (b) Combustion turbines engaged by manufacturers in research and development of equipment for both combustion turbine emission control techniques and combustion turbine efficiency improvements may be exempted from the NO_X limit on a case-by-case basis as determined by the Administrator. You must petition for the exemption.

§ 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.

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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) There are two general methodologies that you may use to conduct the performance tests. For each test run:
 - (i) Measure the NO_X concentration (in parts per million (ppm)), using EPA Method 7E or EPA Method 20 in appendix A of this part. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of this part, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NO_X emission rate:

$$E = \frac{1.194 \times 10^{-7} * (NO_x)_e * Q_{sub}}{P}$$
 (Eq. 5)

Where:

 $E = NO_X$ emission rate, in lb/MWh

 1.194×10^{-7} = conversion constant, in lb/dscf-ppm

 $(NO_X)_c$ = average NO_X concentration for the run, in ppm

Q_{std} = stack gas volumetric flow rate, in dscf/hr

- P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to §60.4350(f)(2); or
 - (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 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 \pm 10 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than \pm 5ppm or \pm 0.5 percent CO_2 (or O_2) 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

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- 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% O_2 , 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 \pm 5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than \pm 3ppm or \pm 0.3 percent CO_2 (or O_2) from the mean for all traverse points; or
- (C) For turbines with a NO_X standard less than or equal to 15 ppm @ 15% O_2 , 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 \pm 2.5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than \pm 1ppm or \pm 0.15 percent CO_2 (or O_2) from the mean for all traverse points.
- (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) For a combined cycle and CHP turbine systems with supplemental heat (duct burner), you must measure the total NO_X emissions after the duct burner rather than directly after the turbine. The duct burner must be in operation during the performance test.
 - (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 emissions 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?

STANDARDS OF PERFORMANCE FOR STATIONARY COMBUSTION TURBINES

If you have chosen to monitor combustion parameters or parameters indicative of proper operation of NO_X emission controls in accordance with $\S60.4340$, the appropriate parameters must be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in $\S60.4355$.

§ 60.4415 How do I conduct the initial and subsequent performance tests for sulfur?

- (a) You must conduct an initial performance test, as required in §60.8. Subsequent SO₂performance 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); or
 - (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) Measure the SO₂concentration (in parts per million (ppm)), using EPA Methods 6, 6C, 8, or 20 in appendix A of this part. In addition, the American Society of Mechanical Engineers (ASME) standard, ASME PTC 19–10–1981–Part 10, "Flue and Exhaust Gas Analyses," manual methods for sulfur dioxide (incorporated by reference, see §60.17) can be used instead of EPA Methods 6 or 20. For units complying with the output based standard, concurrently, measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of this part, and measure and record the electrical and thermal output from the unit. Then use the following equation to calculate the SO₂emission rate:

$$E = \frac{1.664 \times 10^{-7} * (SO_2)_e * Q_{ad}}{P} \qquad (Eq. 6)$$

Where:

E = SO₂ emission rate, in lb/MWh

 1.664×10^{-7} = conversion constant, in lb/dscf-ppm

(SO₂)_c = average SO₂ concentration for the run, in ppm

Q_{std} = stack gas volumetric flow rate, in dscf/hr

- P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to §60.4350(f)(2); or
- (3) Measure the SO₂ and diluent gas concentrations, using either EPA Methods 6, 6C, or 8 and 3A, or 20 in appendix A of this part. In addition, you may use the manual methods for sulfur dioxide ASME PTC 19–10–1981–Part 10 (incorporated by reference, see §60.17). 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 SO₂emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in §60.4350(f) to calculate the SO₂emission rate in lb/MWh.
- (b) [Reserved]

DEFINITIONS

§ 60.4420 What definitions apply to this subpart?

STANDARDS OF PERFORMANCE FOR STATIONARY COMBUSTION TURBINES

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.

Combined cycle combustion turbine means any stationary combustion turbine which recovers heat from the combustion turbine exhaust gases to generate steam that is only used to create additional power output in a steam turbine.

Combined heat and power combustion turbine means any stationary combustion turbine which recovers heat from the exhaust gases to heat water or another medium, generate steam for useful purposes other than additional electric generation, or directly uses the heat in the exhaust gases for a useful purpose.

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.

Combustion turbine test cell/stand means any apparatus used for testing uninstalled stationary or uninstalled mobile (motive) combustion turbines.

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.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary combustion 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.

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.

Emergency combustion turbine means any stationary combustion turbine which operates in an emergency situation. Examples include stationary combustion turbines 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 combustion turbines used to pump water in the case of fire or flood, etc. Emergency stationary combustion turbines do not include stationary combustion turbines used as peaking units at electric utilities or stationary combustion turbines at industrial facilities that typically operate at low capacity factors. Emergency combustion turbines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are required by the manufacturer, the vendor, or the insurance company associated with the turbine. Required testing of such units should be minimized, but there is no time limit on the use of emergency combustion turbines.

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).

Heat recovery steam generating unit means a unit where the hot exhaust gases from the combustion turbine are routed in order to extract heat from the gases and generate steam, for use in a steam turbine or other device that utilizes steam. Heat recovery steam generating units can be used with or without duct burners.

Integrated gasification combined cycle 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 solid coal is directly burned in the unit during operation.

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

STANDARDS OF PERFORMANCE FOR STATIONARY COMBUSTION TURBINES

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.

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, the Northern Mariana Islands, or offshore platforms.

Peak load means 100 percent of the manufacturer's design capacity of the combustion turbine at ISO conditions.

Regenerative cycle combustion turbine means any stationary combustion turbine which recovers heat from the combustion turbine exhaust gases to preheat the inlet combustion air to the combustion turbine.

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.

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, 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.

Useful thermal output means the thermal energy made available for use in any industrial or commercial process, or used in any heating or cooling application, i.e., total thermal energy made available for processes and applications other than electrical or mechanical generation. Thermal output for this subpart means the energy in recovered thermal output measured against the energy in the thermal output at 15 degrees Celsius and 101.325 kilopascals of pressure.

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)	NO _X emission standard
New turbine firing natural gas, electric generating	≤ 50 MMBtu/h	42 ppm at 15 percent O ₂ or 290 ng/J of useful output (2.3 lb/MWh).
New turbine firing natural gas, mechanical drive	≤ 50 MMBtu/h	100 ppm at 15 percent O ₂ or 690 ng/J of useful output (5.5 lb/MWh).
New turbine firing natural gas	> 50 MMBtu/h and \leq 850 MMBtu/h	25 ppm at 15 percent O ₂ or 150 ng/J of useful output (1.2 lb/MWh).
New, modified, or reconstructed turbine firing natural gas	> 850 MMBtu/h	15 ppm at 15 percent O ₂ or 54 ng/J of useful output (0.43 lb/MWh)

STANDARDS OF PERFORMANCE FOR STATIONARY COMBUSTION TURBINES

New turbine firing fuels other than natural gas, electric generating	≤ 50 MMBtu/h	96 ppm at 15 percent O ₂ or 700 ng/J of useful output (5.5 lb/MWh).
New turbine firing fuels other than natural gas, mechanical drive	≤ 50 MMBtu/h	150 ppm at 15 percent O ₂ or 1,100 ng/J of useful output (8.7 lb/MWh).
New turbine firing fuels other than natural gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	74 ppm at 15 percent O ₂ or 460 ng/J of useful output (3.6 lb/MWh).
New, modified, or reconstructed turbine firing fuels other than natural gas	> 850 MMBtu/h	42 ppm at 15 percent O ₂ or 160 ng/J of useful output (1.3 lb/MWh).
Modified or reconstructed turbine	≤ 50 MMBtu/h	150 ppm at 15 percent O ₂ or 1,100 ng/J of useful output (8.7 lb/MWh).
Modified or reconstructed turbine firing natural gas	> 50 MMBtu/h and \leq 850 MMBtu/h	42 ppm at 15 percent O ₂ or 250 ng/J of useful output (2.0 lb/MWh).
Modified or reconstructed turbine firing fuels other than natural gas	> 50 MMBtu/h and \leq 850 MMBtu/h	96 ppm at 15 percent O ₂ or 590 ng/J of useful output (4.7 lb/MWh).
Turbines located north of the Arctic Circle (latitude 66.5 degrees north), turbines operating at less than 75 percent of peak load, modified and reconstructed offshore turbines, and turbine operating at temperatures less than 0 °F	≤ 30 MW output	150 ppm at 15 percent O ₂ or 1,100 ng/J of useful output (8.7 lb/MWh).
Turbines located north of the Arctic Circle (latitude 66.5 degrees north), turbines operating at less than 75 percent of peak load, modified and reconstructed offshore turbines, and turbine operating at temperatures less than 0 °F	> 30 MW output	96 ppm at 15 percent O ₂ or 590 ng/J of useful output (4.7 lb/MWh).
Heat recovery units operating independent of the combustion turbine	All sizes	54 ppm at 15 percent O ₂ or 110 ng/J of useful output (0.86 lb/MWh).

STATEMENT OF BASIS

Initial Title V Air Operation Permit Permit No. 1110121-002-AV

APPLICANT

The applicant for this project is Florida Municipal Power Authority. The applicant's responsible official and mailing address are: Mr. Edward S. Leongomez, Plant Manager, Treasure Coast Energy Center, 8553 Commodity Circle, Orlando, Florida 32819.

FACILITY DESCRIPTION

The applicant operates the Treasure Coast Energy Center, which is located at 4545 Energy Lane, Fort Pierce, in Saint Lucie County, Florida.

This facility is a nominal 300 megawatt (MW) gas-fired combined cycle electrical power plant. The plant includes one 170 MW combustion turbine generator, one heat recovery steam generator (HRSG), a 130 MW steam turbine generator, a 930,000 gallon fuel oil storage tank, a mechanical draft cooling tower, and auxiliary equipment. The facility is located southwest of the City of Fort Pierce, East of Highway 95, in St. Lucie County.

PROJECT DESCRIPTION

The purpose of this permitting project is to issue the initial Title V air operation permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for an initial Title V air operation permit received August 11, 2008.

Request for additional information letter sent October 9, 2008.

Additional information received December 2, 2008.

Request for additional information letter sent December 29, 2008.

Additional information received March 13, 2009.

Request for additional information letter sent April 10, 2009.

Additional information received April 16, 2009.

Application deemed complete on April 16, 2009.

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is not a major source of hazardous air pollutants (HAP).

Title IV: The facility operates units subject to the acid rain provisions of the Clean Air Act.

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

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

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

<u>CAM</u>: Compliance Assurance Monitoring (CAM) does not apply to the combined cycle unit because the existing nitrogen oxides (NO_X) continuous emissions monitoring system (CEMS) is used to demonstrate continuous compliance with emissions limits. The other emissions units have no add-on pollution control devices.

STATEMENT OF BASIS

PROJECT REVIEW

This Title V air operation permit incorporates air construction permit modification 1110121-003-AC that updated the specific conditions of PSD-FL-353 for the combined cycle unit by removing obsolete references to NSPS Subparts GG and Da, and appropriately rewording or adding applicable emissions unit specific conditions based on NSPS Subpart KKKK regulations (Requirements for Gas Turbines and Duct Burners). Other minor changes were made as described in the project's Technical Evaluation and Preliminary Determination document.

CONCLUSION

This project is the initial Title V air operation permit No. 1110121-002-AV for the facility, and is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, 62-213 and 62-214, F.A.C. In accordance with the terms and conditions of this permit, the above named permittee is hereby authorized to operate the facility as shown on the application and approved drawings, plans, and other documents, on file with the permitting authority.

Florida Municipal Power Authority Treasure Coast Energy Center Facility ID No. 1110121

St. Lucie County

Draft/Proposed Initial Title V Air Operation Permit

Permit No. 1110121-002-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: 850/488-0114 Fax: 850/921-9533

Compliance Authority

State of Florida
Department of Environmental Protection
Southeast District Office

400 North Congress Avenue West Palm Beach, Florida 33401

> Telephone: 561/681-6600 Fax: 561/681-6755

Initial Title V Air Operation Permit Draft/Proposed Permit No. 1110121-002-AV

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DRAFT/PROPOSED PERMIT

PERMITTEE:

Florida Municipal Power Authority 8553 Commodity Circle Orlando, Florida 32819 Permit No. 1110121-002-AV Treasure Coast Energy Center Facility ID No. 1110121 Initial Title V Air Operation Permit

This permit is the initial Title V air operation permit for the above referenced facility. The existing Treasure Coast Energy Center is located in St. Lucie County at 4545 Energy Lane, Fort Pierce, Florida. UTM Coordinates are: Zone 17, 561.5161 km East and 3028.9963 km North. Latitude is: 27° 23' 04" North; and, Longitude is: 80° 22' 18" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Effective Date: January 1, 2010

Renewal Application Due Date: May 20, 2014

Expiration Date: December 31, 2014

(Draft/Proposed)

Joseph Kahn, Director Division of Air Resource Management

JK/tlv/jkh/tbc

Subsection A. Facility Description.

This facility is a nominal 300 megawatt (MW) gas-fired combined cycle electrical power plant. The plant includes one 170 MW combustion turbine generator, one heat recovery steam generator (HRSG), a 130 MW steam turbine generator, a 930,000 gallon fuel oil storage tank, a mechanical draft cooling tower, and auxiliary equipment. The facility is located southwest of the City of Fort Pierce, East of Highway 95, in St. Lucie County.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description		
Regulated	Regulated Emissions Units		
001	Unit 1 consists of a General Electric PG7241 FA gas turbine electrical generator (nominal 170 MW) equipped with evaporative inlet air cooling, a heat recovery steam generator (HRSG) with supplemental duct firing, a HRSG stack, and a steam turbine electrical generator (nominal 130 MW).		
002	One distillate fuel oil storage tank for Unit 1 combustion turbine (930,000 gallons).		
003	One 8-cell mechanical draft cooling tower.		
004	One safe shutdown generator (approximately 1,102 horsepower (hp)) with associated 1000 gallon fuel oil storage tank.		
005	One diesel engine fire pump (approximately 290 hp) with associated 500 gallon fuel oil storage tank.		

Subsection C. Applicable Regulations.

Based on the initial Title V air operation permit application received on August 11, 2008, this facility is not a major source of hazardous air pollutants (HAP). This facility is classified as a prevention of significant deterioration (PSD) major facility. A summary of applicable regulations is shown in the following table.

Federal Regulations	EU No(s).
40 Code of Federal Regulations (CFR) 60, Subpart A, New Source Performance Standards (NSPS) General Provisions	001, 004, 005
40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	004, 005
40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines for Which Construction is Commenced After February 18, 2005	001
40 CFR 75 Acid Rain Monitoring Provisions	1

SECTION I. FACILITY INFORMATION.

State Regulations		
Rule 62-4, Florida Administrative Code (F.A.C.) (Permitting Requirements)		
Rule 62-204, F.A.C. (Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference)		
Rule 62-210, F.A.C. (Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms)	001, 002, 003, 004, 005	
Rule 62-212, F.A.C. (Preconstruction Review, PSD Review and Best Available Control Technology (BACT))		
Rule 62-213, F.A.C. (Title V Air Operation Permits for Major Sources of Air Pollution)		
Rule 62-214, F.A.C. (Requirements For Sources Subject To The Federal Acid Rain Program)	001	
Rule 62-296, F.A.C. (Emission Limiting Standards)		
Rule 62-297, F.A.C. (Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures)		
Rule 62-296.470, F.A.C. (Clean Air Interstate Rule) (CAIR)	001	

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. 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 is deemed necessary and ordered at this time. [Rule 62-296.320(1)(a), 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.** <u>Unconfined Particulate Matter</u>. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:
 - a. Paving of roads, parking areas and equipment yards
 - b. Landscaping and planting of vegetation
 - c. Maintenance of paved areas as needed
 - d. Regular mowing of grass and care of vegetation
 - e. Limiting access to plant property for unnecessary vehicles [Rule 62-296.320(4)(c)2., F.A.C.; and provided by the applicant in Title V air operation permit application received August 11, 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 calendar year. [Rule 62-210.370(3), F.A.C.]
- FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due 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/permitting/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 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.]

SECTION II. FACILITY-WIDE CONDITIONS.

FW9. Prevention of Accidental Releases (Section 112(r) of CAA).

- a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 1515, Lanham-Seabrook, MD 20703-1515, Telephone: 301/429-5018.
- b. The permittee shall 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]

Subsection A. Unit 1 Combined Cycle Gas Turbine (EU 001)

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

EU No.	Brief Description
001	Unit 1 consists of a General Electric PG7241 FA gas turbine electrical generator (nominal 170 MW) equipped with evaporative inlet air cooling, a heat recovery steam generator (HRSG) with supplemental duct firing, a HRSG stack, and a steam turbine electrical generator (nominal 130 MW). Stack height is 170 feet. Stack exit diameter is 19 feet. Commercial operation of the unit began on June 10, 2008. Compliance Assurance Monitoring (CAM) does not apply to the combined cycle unit because the existing nitrogen oxides (NO _X) continuous emissions monitoring system (CEMS) is used to demonstrate compliance with emissions limits.

Applicable Standards and Regulations

- A.1. NSPS Requirements. The combustion turbine shall comply with all applicable requirements of 40 CFR 60, listed below, adopted by reference in Rule 62-204.800(8)(b), F.A.C. The Department determines that compliance with the BACT emissions performance requirements also assures compliance with the New Source Performance Standards for Subpart KKKK. Some separate reporting and monitoring may be required by the individual subparts.
 - (a) Subpart A, General Provisions, including:
 - 40 CFR 60.7, Notification and Record Keeping
 - 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
 - (b) Subpart KKKK, Standards of Performance for Stationary Gas Turbines: These provisions include standards for combustion gas turbines and duct burners.

[Permit Nos. 0110121-001-AC and 0110121-003-AC; and or other rule cites.]

Equipment

- A.2. <u>Gas Turbine</u>. The permittee is authorized to tune, operate, and maintain one General Electric Model PG7241FA gas turbine-electrical generator set with a nominal generating capacity of 170 MW. The gas turbine is equipped with DLN combustors, and has an inlet air filtration system with evaporative coolers. The unit includes the Speedtronic Mark VI automated gas turbine control system, and has dual-fuel capability. [1110121-001-AC, Specific Condition A.3.]
- A.3. HRSG. The permittee is authorized to operate and maintain one heat recovery steam generator (HRSG) with a HRSG exhaust stack. The HRSG is designed to recover heat energy from the gas turbine and deliver steam to the steam turbine electrical generator. The HRSG is equipped with supplemental gas-fired duct burners having a maximum heat input rate of 565.3 MMBtu per hour (HHV). The duct burners are designed in accordance with the following specifications: 0.04 lb carbon monoxide (CO)/million British thermal units (MMBtu) and 0.08 lb NO_x/MMBtu. [1110121-001-AC, Specific Condition A.4.]

Control Technology

A.4. <u>DLN Combustion</u>. The permittee shall operate and maintain the General Electric DLN 2.6 combustion system (or better) to control NO_X emissions from the gas turbine when firing natural gas. The system shall be maintained and tuned in accordance with the manufacturer's recommendations.

Subsection A. Unit 1 Combined Cycle Gas Turbine (EU 001)

- A.5. Water Injection. The permittee shall operate and maintain a water injection system to reduce NO_X emissions from the gas turbine when firing distillate fuel oil. The system shall be maintained and tuned in accordance with the manufacturer's recommendations.
- A.6. Selective Catalytic Reduction (SCR) System. The permittee shall tune, operate, and maintain an SCR system to control NO_X emissions from the gas turbine when firing either natural gas or distillate fuel oil. The SCR system consists of an ammonia (NH₃) injection grid, catalyst, ammonia storage, monitoring and control system, electrical, piping and other ancillary equipment. The SCR system shall be designed, constructed and operated to achieve the permitted levels for NO_X and NH₃ emissions.

Ammonia Storage: In accordance with 40 CFR 68.130, the storage of ammonia shall comply with all applicable requirements of the Chemical Accident Prevention Provisions in 40 CFR 68.

[Design; Rule 62-212.400(BACT), F.A.C.; Permit No. 0110121-001-AC]

Essential Potential to Emit (PTE) Parameters

- A.7. Permitted Capacity Gas Turbine. The maximum heat input rate to the gas turbine is 1,900 MMBtu per hour when firing natural gas and 1,986 MMBtu per hour when firing distillate fuel oil (based on a compressor inlet air temperature of 59° F, the higher heating value (HHV) of each fuel, and 100% load). Heat input rates will vary depending upon gas turbine characteristics, ambient conditions, alternate methods of operation, and evaporative cooling. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rule 62-210.200(PTE), F.A.C.; 1110121-001-AC, Specific Condition A.8.]
- A.8. Permitted Capacity HRSG Duct Burners. The total maximum heat input rate to the duct burners for the HRSG is 565.3 MMBtu per hour based on the higher heating value (HHV) of natural gas. Only natural gas shall be fired in the duct burners. [Rule 62-210.200(PTE), F.A.C.; 1110121-001-AC, Specific Condition A.9.]
- **A.9.** 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.10.** Hours of Operation. The gas turbine may operate throughout the year (8760 hours per year). Restrictions on individual methods of operation are specified in separate conditions. [Rules 62-210.200(PTE) and 62-212.400 (BACT), F.A.C.; 1110121-001-AC, Specific Condition A.10.]
- **A.11.** Authorized Fuels. The gas turbine shall fire natural gas as the primary fuel, which shall contain no more than 2.0 grains of sulfur per 100 standard cubic feet of natural gas. As a restricted alternate fuel, the gas turbine may fire ultra low sulfur distillate fuel oil containing no more than 0.0015% sulfur by weight. The gas turbine shall fire no more than 500 hours of fuel oil, regardless of mode, during any calendar year. [Rules 62-210.200(PTE) and 62-212.400 (BACT), F.A.C.; 1110121-001-AC, Specific Condition A.11.]
- **A.12.** <u>Methods of Operation</u>. Subject to the restrictions and requirements of this permit, the gas turbine may operate under the following methods of operation.
 - a. Combined Cycle Operation: The gas turbine/HRSG system may operate to produce direct, shaft-driven electrical power and steam-generated electrical power from the steam turbine-electrical generator as a combined cycle unit subject to the restrictions of this permit. In accordance with the specifications of the SCR and HRSG manufacturers, the SCR system shall be on line and functioning properly during combined cycle operation or when the HRSG is producing steam.
 - b. Pseudo Simple Cycle Operation: The gas turbine/HRSG system may operate in a pseudo simple cycle mode where steam from the HRSG bypasses the steam turbine electrical generator and is dumped directly

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- to the condenser. This is not considered a separate mode of operation with respect to emission limits (i.e. emission limits of combined cycle operation still apply).
- c. *Inlet Fogging*: In accordance with the manufacturer's recommendations and appropriate ambient conditions, the evaporative cooling system may be operated to reduce the compressor inlet air temperature and provide additional direct, shaft-driven electrical power. This method of operation is commonly referred to as "fogging."
- d. *Duct Firing*: The HRSG system may fire natural gas in the duct burners to provide additional steam-generated electrical power.

[Rules 62-210.200 (PTE) and 62-212.400 (BACT), F.A.C.; 1110121-001-AC, Specific Condition A.12.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for Specific Condition A.13. are based on the specified averaging time of the applicable test method.

A.13. Emission Standards. Emissions from the turbine/HRSG system shall not exceed the following standards.

Pollutant	Fuel	Method of Operation	Stack Test, 3-Run Average		CEMS Average	
			ppmvd @ 15% O ₂	lb/hr ^f	ppmvd @ 15% O ₂	
	Oil	Combustion Turbine (CT) (w/o Duct Burner)	8.0	37.8		
~~ 3		CT & Duct Burner (DB)	8.0	47.3	8.0, 24-h block	
CO a		CT, Normal (w/o DB)	4.1	17.2		
	Gas	CT & (DB)	7.6	40.1		
	Oil/Gas	All Modes	NA	NA	6.0, 12-month rolling	
	Oil	CT (w/o DB)	8.0	62.0	8.0, 24-hr block	
	Oli	CT & DB	8.0	78.0	42, 30-day rolling ^g	
NO _x ^b		CT, Normal (w/o DB)	2.0	13.1	2.0, 24-hr block	
	Gas	CT & DB	2.0	16.9	15, 30-day rolling ^g	
Particulate	e		0.0015% sulfur fu	el oil, 2 g	gr S/100 SCF of gas	
Matter ^c (PM/PM ₁₀)	Oil/Gas All Modes		Visible emissions shall not exceed 10% opacity for each 6-minute block average.			
Sulfuric Acid Mist/Sulfur Dioxide ^d (SAM/SO ₂)	Oil/Gas	All Modes	0.0015% sulfur fuel oil, 2 gr S/100 SCF of gas			
Ammonia ^e	Oil/Gas	CT, All Modes	5.0	NA	NA	

- a. Continuous compliance with the 24-hour and 12-month CO standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 10 tests associated with the certification and quality assurance of the CEMS instruments may also be used to demonstrate compliance with the individual standards for natural gas, fuel oil, and basic duct burner mode.
- b. Continuous compliance with the 24-hr NO_X standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 7E or Method 20 tests associated with demonstration of compliance with 40 CFR 60, Subpart KKKK or certification and quality assurance of

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- the CEMS instruments may also be used to demonstrate compliance with the individual standards for normal natural gas, fuel oil, and duct burner modes during the time of those tests. NO_X mass emission rates are defined as oxides of nitrogen expressed as NO₂.
- c. The fuel sulfur specifications, combined with the efficient combustion design and operation of the gas turbine represents (BACT) for PM/PM₁₀ emissions. Compliance with the fuel specifications, CO standards, and visible emissions standards shall serve as indicators of good combustion. Compliance with the fuel specifications shall be determined by the requirements in Specific Condition A.28. Compliance with the visible emissions standard shall be demonstrated by conducting tests in accordance with EPA Method 9.
- d. The fuel sulfur specifications effectively limit the potential emissions of SAM and SO₂ from the gas turbine and represent BACT for these pollutants. Compliance with the fuel sulfur specifications shall be determined by the requirements in Specific Condition A.28.
- e. The SCR system shall be designed and operated for an ammonia slip limit of no more than 5 parts per million by volume dry (ppmvd) corrected to 15% oxygen (O₂) based on the average of three test runs.
- f. The mass emission rate standards are based on a turbine inlet condition of 59° F, evaporative cooling on, and using the HHV of the fuel. Mass emission rate may be adjusted from actual test conditions in accordance with the performance curves and/or equations on file with the Department.
- g. Compliance with 40 CFR 60, NSPS, Subpart KKKK as described in 60.4380(b)(1). [Rule 62-212.400 (BACT), F.A.C.; 1110121-001-AC, Specific Condition A.13.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of an NSPS, National Emission Standards for Hazardous Air Pollutants (NESHAP) or Acid Rain program provision.

{Permitting Note: The following conditions A.14. through A.18. apply only to the State Implementation Plan (SIP)-based emissions standards specified in Specific Condition A.13.}

- A.14. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown, and documented malfunctions shall be permitted, provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. For the gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in a 24-hour block except for the following specific cases. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail.
 - a. Steam Turbine Generator/Heat Recovery Steam Generator (STG/HRSG) System Cold Startup: For cold startup of the steam turbine/HRSG system, excess emissions from the gas turbine/HRSG system shall not exceed six hours in a 24-hour block. A "cold startup of the steam turbine/HRSG system" is defined as startup of the combined cycle system following a shutdown of the steam turbine lasting at least 48 hours.
 - {Permitting Note: During a cold startup of the steam turbine system, the gas turbine/HRSG system is brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue}
 - b. Steam Turbine/HRSG System Warm Startup: For warm startup of the steam turbine/HRSG system, excess emissions shall not exceed four hours in a 24-hour block. A "warm startup of the steam turbine/HRSG system" is defined as a startup of the combined cycle system following a shutdown of the steam turbine lasting at least 8 hours and less than 48 hours.
 - c. Steam Turbine Generator (STG)/HRSG System Hot Startup: For hot startup of the STG/HRSG system, excess emissions shall not exceed two hours in a 24-hour block. A "hot startup of the STG/HRSG

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- system" is defined as a startup of the combined cycle system following a shutdown of the steam turbine lasting less than 8 hours.
- d. *Shutdown:* For shutdown of the combined cycle operation, excess emissions from the gas turbine/HRSG system shall not exceed three hours in a 24-hour block.
- e. *Fuel Switching:* Excess emissions due to oil-to-gas fuel switching shall not exceed 1 hour in 24-hour block.
- f. Documented Malfunction: For the combustion turbine generator (CTG)/HRSG system, excess emissions resulting from documented malfunctions shall not exceed two hours in a 24-hour block.
- [1110121-001-AC, Specific Condition A.18.]
- A.15. 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. [Rule 62-210.700(4), F.A.C.; 1110121-001-AC, Specific Condition A.16.]
- A.16. Operating Procedures. The Best Available Control Technology (BACT) determinations established by this permit rely on "good operating practices" to reduce emissions. Therefore, all operators and supervisors shall be properly trained to operate and ensure maintenance of the gas turbine, HRSG, and pollution control systems in accordance with the guidelines and procedures established by each manufacturer. The training shall include good operating practices as well as methods for minimizing excess emissions. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; 1110121-001-AC, Specific Condition A.14.]

A.17. 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.

 [Rule 62-210.200(245), F.A.C.; 1110121-001-AC, Specific Condition A.15.]
- b. *Shutdown* is the cessation of the operation of an emissions unit for any purpose. [Rule 62-210.200(230), F.A.C.; 1110121-001-AC, Specific Condition A.15.]
- 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. [Rule 62-210.200(159), F.A.C.; 1110121-001-AC, Specific Condition A.15.]
- **A.18.** Alternate Visible Emissions Standard. Visible emissions due to startups, shutdowns, and malfunctions shall not exceed 10% opacity except for up to ten, 6-minute averaging periods during a calendar day, which shall not exceed 20% opacity. [Rule 62-212.400(BACT), F.A.C.; 1110121-001-AC, Specific Condition A.17.]
- A.19. <u>Ammonia Injection</u>. Ammonia injection shall begin as soon as operation of the gas turbine/HRSG system achieves the operating parameters specified by the manufacturer. As authorized by Rule 62-210.700(5), F.A.C., condition Number A.14. allows excess emissions only for specifically defined periods of startup, shutdown, fuel switching, and documented malfunction of the gas turbine/HRSG system including the pollution control equipment. [Design; Rules 62-212.400(BACT) and 62-210.700, F.A.C.; 1110121-001-AC, Specific Condition A.19.]

Continuous Monitoring Requirements

A.20. <u>DLN Tuning</u>. CEMS data collected during initial or other major dry low nitrogen oxides (DLN) tuning sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is

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performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Compliance Authority with an advance notice of at least 14 days that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail. [Design; Rule 62-4.070(3), F.A.C.; 1110121-001-AC, Specific Condition A.20.]

- A.21. CEM Systems. The permittee shall calibrate, maintain, and operate continuous emission monitoring systems (CEMS) to measure and record the emissions of CO and NO_x from the combined cycle gas turbine in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards of this section. Each monitoring system shall be installed, calibrated, and properly functioning prior to the initial performance tests. Within one working day of discovering emissions in excess of a CO or NO_x standard (and subject to the specified averaging period), the permittee shall notify the Compliance Authority.
 - a. CO Monitor: The 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, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The Relative Accuracy Test Audits (RATA) tests required for the CO monitor shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 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.
 - b. NO_x Monitor: Each NO_x monitor shall be certified, operated, and maintained in accordance with the requirements of 40 CFR 75. Record keeping and reporting shall be conducted pursuant to Subparts F and G in 40 CFR 75. The RATA tests required for the NO_x monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60.
 - c. Diluent Monitor: The oxygen (O₂) or 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. If a CO₂ monitor is installed, 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.

[1110121-001-AC, Specific Condition A.25.]

A.22. CEMS Data Requirements.

- a. *Data Collection*: Emissions shall be monitored and recorded at all times including startup, operation, shutdown, and malfunction except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over an hour. 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 moisture contents in the exhaust gas versus load for each allowable fuel, 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. Compliance with the emission standards of 40 CFR Part 60 Subpart KKKK is covered in Appendix NSPS, Subpart KKKK.
- b. *Valid Hour*: Hourly average values shall begin at the top of each hour. Each hourly average value shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit

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- combusted fuel during that quadrant of an hour. Notwithstanding this requirement, an hourly value shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). If less than two such data points are available, the hourly average value is not valid. An hour in which any oil is fired is attributed towards compliance with the permit standards for oil firing. The permittee shall use all valid measurements or data points collected during an hour to calculate the hourly average values.
- c. 24-hour Block Averages: A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of all available valid hourly average emission rate values for the 24-hour block. For purposes of determining compliance with the 24-hour CEMS standards, the missing data substitution methodology of 40 CFR part 75, subpart D, shall not be utilized. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. [Rule 62-212.400(BACT), F.A.C.]
 - {Permitting Note: There may be more than one 24-hour compliance demonstration required for CO and NO_X emissions depending on the use of alternate methods of operation}
- d. 12-month Rolling Averages: Compliance with the long-term emission limit for CO shall be based on a 12-month rolling average. Each 12-month rolling average shall be the arithmetic average of all valid hourly averages collected during the current calendar month and the previous 11 calendar months.
- e. Data Exclusion: Each CEMS shall monitor and record emissions during all operations including episodes of startup, shutdown, malfunction, fuel switches and DLN tuning. Some of the CEMS emissions data recorded during these episodes may be excluded from the corresponding CEMS compliance demonstration subject to the provisions of Condition Nos. 18 and 20 of this section. All periods of data excluded shall be consecutive for each such episode and only data obtained during the described episodes (startup, shutdown, malfunction, fuel switches, DLN tuning) may be used for the appropriate exclusion periods. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable. Data recorded during such episodes shall not be excluded if the episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented. Best operational practices shall be used to minimize hourly emissions that occur during such episodes. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited.
- f. Availability: Monitor availability for the CEMS shall be 95% or greater in any calendar quarter. The quarterly excess emissions report shall be used to demonstrate monitor availability. 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, except as otherwise authorized by the Department's Compliance Authority.

[Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; 1110121-001-AC, Specific Condition A.26.]

A.23. Ammonia Monitoring Requirements. In accordance with the manufacturer's specifications, the permittee shall install, calibrate, operate and maintain an ammonia flow meter to measure and record the ammonia injection rate to the SCR system prior to the initial compliance tests. The permittee shall document and periodically update the general range of ammonia flow rates required to meet permitted emissions levels over the range of load conditions allowed by this permit by comparing NO_x emissions recorded by the CEM system with ammonia flow rates recorded using the ammonia flow meter. During NO_x monitor downtimes or malfunctions, the permittee shall operate at the ammonia flow rate and, as applicable for fuel oil firing, the

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water-to-fuel ratio, that is consistent with the documented flow rate for the combustion turbine load condition. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; 1110121-001-AC, Specific Condition A.27.]

Test Methods and Procedures

A.24. Test Methods. Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments		
	Procedure for Collection and Analysis of Ammonia in Stationary Source		
CTM-027	This is an EPA conditional test method.		
	• The minimum detection limit shall be 1 parts per million (ppm).		
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources		
9	Visual Determination of the Opacity of Emissions from Stationary Sources		
	Determination of Carbon Monoxide Emissions from Stationary Sources		
10	The method shall be based on a continuous sampling train.		
10	• The ascarite trap may be omitted or the interference trap of section 10.1 may be used in lieu of the silica gel and ascarite traps.		
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines		

Method CTM-027 is published on EPA's Technology Transfer Network Web Site at "http://www.epa.gov/ttn/emc/ctm.html". The other 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 62-297.620, F.A.C. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A; 1110121-001-AC, Specific Condition A.21.]

- **A.25.** 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(7), F.A.C.]
- A.26. Annual Compliance Tests. During each federal fiscal year (October 1st, to September 30th), the gas turbine shall be tested to demonstrate compliance with the emission standard for visible emissions. NO_X and CO emissions data collected during the required continuous monitor Relative Accuracy Test Audits (RATAs) may be used to demonstrate compliance with the CO and NO_X standards. Annual testing to determine the ammonia slip shall be conducted while firing the primary fuel. NO_X emissions recorded by the CEMS shall be reported for each ammonia slip test run. CO emissions recorded by the CEMS shall be reported for the visible emissions observation period. [Rules 62-212.400 (BACT) and 62-297.310(7)(a)4, F.A.C.; 1110121-001-AC, Specific Condition A.23.]
- **A.27.** Compliance Tests Prior To Renewal. Compliance tests shall be performed for PM/PM₁₀, and SAM/SO₂ once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Condition **A.13.** [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

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A.28. Continuous Compliance. The permittee shall demonstrate continuous compliance with the 24-hour CO and NO_x emissions standards based on data collected by the certified CEMS. Within 45 days of conducting any Relative Accuracy Test Assessments (RATA) on a CEMS, the permittee shall submit a report to the Compliance Authority summarizing results of the RATA. Compliance with the CO emission standards also serves as an indicator of efficient fuel combustion, which reduces emissions of particulate matter. [Rule 62-212.400 (BACT), F.A.C.; 1110121-001-AC, Specific Condition A.24.]

Recordkeeping and Reporting Requirements

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

- A.29. Monitoring of Capacity. The permittee shall monitor and record the operating rate of the gas turbine and HRSG duct burner system on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown, malfunction, and fuel switching). Such monitoring shall be made using a monitoring component of the CEM system required above, or by monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; 1110121-001-AC, Specific Condition A.28.]
- A.30. Monthly Operations Summary. By the fifth calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the gas turbine for the previous month of operation: fuel consumption, hours of operation, hours of duct firing, and the updated 12-month rolling 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. The fuel consumption shall be monitored in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; 1110121-001-AC, Specific Condition A.29.]
- **A.31.** 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: 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. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D4468-85, D5504-01, D6228-98 and D6667-01, D3246-81 or more recent versions.
 - b. Fuel Oil: Compliance with the distillate fuel oil sulfur limit shall be demonstrated by sampling and analysis of the fuel by the permittee or vendor for sulfur, and reporting the results to the Compliance Authority before initial startup. Sampling the fuel oil sulfur content shall be conducted in accordance with ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, and one of the following test methods for sulfur in petroleum products: ASTM methods D5453-00, D129-91, D1552-90, D2622-94, or D4294-90. More recent versions of these methods may be used. For each fuel delivery, the permittee shall maintain a permanent file of the certified fuel sulfur analysis from the fuel vendor, or from an analysis conducted by the permittee, in accordance with the above methods. At the request of a Compliance Authority, the permittee shall perform additional sampling and analysis for the fuel sulfur content.

The above methods shall be used to determine the fuel sulfur content in conjunction with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-4.160(15), F.A.C.; 1110121-001-AC, Specific Condition A.30.1

A.32. Emissions Performance Test Reports. A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the

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last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. and in Appendix SC of this permit. [Rule 62-297.310(8), F.A.C.; 1110121-001-AC, Specific Condition A.31.]

A.33. 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 Quarterly Report: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of CO and NOx emissions in excess of the BACT permit standards following the NSPS format in 40 CFR 60.7(c), Subpart A. Periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. In addition, the report shall summarize the CEMS systems monitor availability for the previous quarter.
- c. NSPS Semi-Annual Excess Emissions Reports: Within thirty (30) days following each calendar semi-annual period, the permittee shall submit a report on any periods of excess emissions above the applicable NSPS limit that occurred during the previous semi-annual period to the Compliance Authority.

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

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7, and 60.332(j)(1); 1110121-001-AC, Specific Condition A.32.]

A.34. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility. The permittee shall also keep records sufficient to determine the annual throughput of distillate fuel oil for the fuel oil storage tank for use in the Annual Operating Report. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(2), F.A.C.; 1110121-001-AC, Specific Condition A.33.]

B. Fuel Oil Storage Tank (EU 002)

ID	Emission Unit Description
002	One distillate fuel oil storage tank for Unit 1 combustion turbine (930,000 gallons).

NSPS Applicability

B.1. NSPS Subpart Kb Applicability. Subpart Kb does not apply to storage vessels with a capacity greater than or equal to 151 cubic meters storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 cubic meters but less than 151 cubic meters storing a liquid with a maximum true vapor pressure less than 15.0 kPa. Tanks with a capacity greater than or equal to 40,000 gallons (151 cubic meters) storing a liquid with a maximum true vapor pressure less than 5.2 kPa and greater than 3.5 kPa, are exempt from the General Provisions (40 CFR 60, Subpart A) and from the provisions of NSPS Subpart Kb, except for the monitoring requirements. Tanks with a capacity greater than or equal to 40,000 gallons (151 cubic meters) storing a liquid with a maximum true vapor pressure less than 3.5 kPa, are exempt from the General Provisions (40 CFR 60, Subpart A) and from the provisions of NSPS Subpart Kb. The fuel oil storage tank (EU 002) has a capacity greater than 151 cubic meters and the vapor pressure of the ultra low sulfur fuel oil is less than 3.5 kPa, therefore NSPS Kb, including the monitoring requirements, does not apply to this unit.

[40 CFR 60.110b(a) and (b), and 60.116b(c); Rule 62-204.800(8), F.A.C.; 1110121-001-AC, Specific Condition B.1.]

Equipment Specifications

B.2. Equipment. The permittee is authorized to operate and maintain one 990,000 gallon distillate fuel oil storage tank designed to provide ultra low sulfur fuel oil to the Unit 1 gas turbine. [Rule 62-210.200(PTE), F.A.C.; 1110121-001-AC, Specific Condition B.2.]

Performance Requirements

B.3. Hours of Operation. The hours of operation are not restricted (8760 hours per year). [Rule 62-210.200(PTE), F.A.C.; 1110121-001-AC, Specific Condition B.3.]

Notification, Reporting, and Records

B.4. Oil Tank Records. The permittee shall keep readily accessible records showing the dimension of each storage vessel and an analysis showing the capacity of each storage tank. Records shall be retained for the life of the facility. The permittee shall also keep records sufficient to determine the annual throughput of distillate fuel oil for use in the Annual Operating Report.

[Rule 62-204.800(8)(b), F.A.C.; 1110121-001-AC, Specific Condition B.4.]

Subsection C. Cooling Tower (EU 003)

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

EU No.	Brief Description
003	One 8-cell mechanical draft cooling tower.

Equipment and Performance Requirements

C.1. Cooling Tower. The permittee is authorized to operate one 8-cell mechanical draft cooling tower with the following nominal design characteristics: a circulating water flow rate of 111,130 gpm; a design air flow rate of 1,000,000 acfm per cell; drift eliminators; a drift rate of no more than 0.0005 percent of the circulating water flow. [Rule 62-212.400(BACT); 1110121-001-AC, Specific Condition C.1.]

{Permitting Note: This work practice standard is established as BACT for PM/PM₁₀ emissions from the cooling tower. Based on this design criteria, potential emissions are expected to be less than 10 tons of PM per year and less than 2 tons of PM₁₀ per year. Actual emissions are expected to be lower than these rates.}.

Subsection D. Safe Shutdown Generator (EU 004)

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

EU No.	Brief Description
004	One safe shutdown generator (approximately 1,102 hp) with associated 1000 gallon fuel oil storage tank.

NESHAP Applicability

NESHAP Subpart ZZZZ Applicability. The facility is not a "Major Source" of hazardous air pollutants (HAP), therefore the generator is not subject to Subpart ZZZZ.

NSPS Applicability

NSPS Subpart IIII Applicability. The safe shutdown generator is a Stationary Compression Ignition Internal Combustion Engines (Stationary ICE) and is subject to 40 CFR 60, Subpart IIII.

[40 CFR 60, NSPS-Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines]

Equipment Specifications

D.1. Safe Shutdown Generator. The permittee is authorized to operate and maintain one safe shutdown generator. The safe shutdown generator may operate when the transmission connection is lost and the plant shuts down, and during occasional testing to ensure operability. The safe shutdown generator shall only fire ultra low sulfur (ULS) fuel oil. [1110121-001-AC, Specific Condition D.1.]

Emissions and Performance Requirements

D.2. Hours of Operation. The safe shutdown generator shall not operate for more than 200 hours per year. [Rule 62-210.200(PTE), F.A.C.; 1110121-001-AC, Specific Condition D.2.]

{Permitting Note: Emissions from the safe shutdown generator were included in the potential to emit for the air construction permit project.}

Subsection E. Diesel Fire Pump (EU 005)

Subsection E. Diesel Fire Pump

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

EU No.	Brief Description
005	One diesel engine fire pump (approximately $300 \ \underline{290}$ hp) with associated 500 gallon fuel oil storage tank.

NESHAP Applicability

<u>NESHAP Subpart ZZZZ Applicability</u>. The facility is not a "Major Source" of hazardous air pollutants (HAP), therefore the generator is not subject to Subpart ZZZZ.

NSPS Applicability

NSPS Subpart IIII Applicability. This fire pump engine is an Emergency Stationary Compression Ignition Internal Combustion Engine (Stationary ICE) and is subject to 40 CFR 60, Subpart IIII.

It shall comply with 40 CFR 60, Subpart IIII only to the extent that the regulations apply to the emission unit and its operations (e.g., fire pumps, horsepower, and model year selected).

[40 CFR 60, NSPS-Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines]

Equipment Specifications

E.1. Fire Pump. The permittee is authorized to operate and maintain one diesel engine driven fire pump (approximately 290 hp) with associated 500 gallon fuel oil storage tank. The diesel engine fire pump shall only fire ultra low sulfur (ULS) fuel oil. [1110121-001-AC, Specific Condition E.1.]

Essential Potential to Emit (PTE) Parameters

E.2. Hours of Operation. The fire pump may operate 200 hours per year. [Rule 62-210.200 (PTE), F.A.C.; 1110121-001-AC, Specific Condition E.2.]

{Permitting Note: The fire pump is considered emergency equipment, therefore exempt from permitting, however its emissions are included in the potential to emit for the project.}

SECTION IV. ACID RAIN PART.

Subsection A. Phase II

Operated by: Florida Municipal Power Authority

ORIS Code: 56400

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

E.U.

001

ID No. Brief Description

Unit 1 consists of a General Electric PG7241 FA gas turbine electrical generator (nominal 170 MW) equipped with evaporative inlet air cooling, a heat recovery steam generator (HRSG) with supplemental duct firing, a HRSG stack, and a steam turbine electrical generator (nominal 130 MW).

- A.1. <u>Application</u>. The Phase II Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of this Phase II acid rain unit must comply with the standard requirements and special provisions set forth in the application listed below:
 - a. DEP Form No. 62-210.900(1)(a), dated 07/31/06, received 08/11/08. [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]
- A.2. <u>Sulfur Dioxide Emission Allowances</u>. 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.

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 82-214, F.A.C.

1
3

STEP 1

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

Treasure Coast Energy Center	FI,	56400
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	ь	c	d	8
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 Optin Units Monitor Certification Deadline
Unit1	No	Yes		
		Yes		:
		Yes	44.00	
		Yes		
		Yes	3,000	
		Yes		
		. Yes		
		Yes		
		Yes		
	,	Yes		
		Yes		
		Yes		

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Treasure Coast Energy Center	
Plant Name (from STEP 1)	

STEP 3

Acid Rain Part Requirements.

Read the standard 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 52-214,320 and 330, F.A.C., in accordance with the desattines specified in Rule 62-214,320, F.A.C.; and
(ii) Submit in a timely marrier any supplemental information that the DEP determines in recessary in order to review an Acid Rain Part application and issue or damy 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

(6) Have an Acid Rain Part.

Monitoring Requirements.

The owners and operators and, to the extent applicable, designated representative of each Acid Rein source and each Acid Rein unit at
the source shall comply with the moritoring requirements as provided in 40 CFR Part 75, and Rule 52-214.420, F.A.C.
 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 Rein emissions limitations and emissions reduction requirements for safer dioxide and nitrogen acides under the Acid Rein

Program.

(3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the towners 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

(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 centers and operators of cech source and each Add Rein unit at the source shall:

(i) Hold allowances, as of the allowance transfer deciding, in the unit occupitance subseccount (after deductions under 40 CFR 73.34(e)), or in the compliance subseccount of another Add Rein unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sufur dioxide for the previous calendar year from the unit; and

(i) Corrupty with the applicable Acid Rein emissions finitiations for suffur dioxide.

(2) Each Ion of suffur dioxide emitted in excess of the Acid Rein emissions limitations for suffur dioxide shall constitute a separate violation of the Acid.

(3) An Acid Rein unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as frillness.

(6) Seeling Institute 3 2006 as Acid Rein units and the surfur dioxide requirements as frillness.

An Acid Rais unit shall be subject to the requirements under paregraph (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

ces shall be held in, deducted from, or transferred among Allowance Yracking System accounts in accordance with the Acid Rein

Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur disside requirements prior to the calendar year for which the allowance was elected.

(6) An allowance allocated by the Administrator under the Acid Raia Program is a limited authorization to emit sulfur disside in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Program, the Acid Rain Program, the Acid Rain Program.

40 CER 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 Add Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rein unit at the source shall compty with the applicable Acid Rein 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 uired under 40 CFR Part 77. The owners and operators of an Aod Rain unit that has excess amissions in any calendar year shall:

(i) Pay without demand the pensity required, and pay upon demand the Interest on that pensity, 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 scale of the following documents for a period of 5 years from the date the document is created. This period may be addended for cause, at any

each of the following documents for a pends of 3 years from the date the document is created. This period may be addeded for cause, at an time prior to the end of 5 years, in whiting by the EAA or the DEP.

(i) The certificate of representation for the designated representative for the house 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 conflictate and documents that liber estated on site at the source beyond such 5-year period until such documents after an experience of representation changing the designated representative;

(ii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program;

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Treasure Coast Energy Center	
Plant Name (from STEP 1)	

STEP 3. Continued

Recordkeeping and Reporting Requirements (cont)

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

Liebility.

- (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 ewed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

 (2) Any person who knowingly makes a laise, material statement in any record, submission, or report under the Acid Rain Program shall be subject to chiminal 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 lakes affect.

- lakes effect.

 (4) Each Acid Rain source and each Acid Rain unit shall most the requirements of the Acid Rain Program.

 (5) Amy 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 are 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 75.11 (NO, overaging plans), and except with regard to the requirements applicable to units with a common stock under 40 CFR 77.47 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators on the designated representative of one Acid Rain unit shall not be liable for any violation by any other 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.

 (7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 75 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 Aci.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an examption under 40 CFR 72.7or 728 shall be

- construct as:

 (1) Except as expressly provided in little 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 the I of the Act relating to applicable Netional Amoterni Air Quality Standards or State Implementation Pleas:

 (2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not effect the source's
- (2) Limiting the number of advocances 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, including any produces review requirements under such estate law;
 (4) Modifying the Federal Power Act or affecting the eatherity of the Federal Energy Regulatory Commission under the Federal Power Act;
 (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 SO, 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.

in column "h" enter the hours.

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

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	Treasure Coast Energy Cerner						
	Plant Name (from STEP 1)						
STEP 5	ı	j	k	ı	m	n	
For SO ₂ Opt-In units only.		<u> </u>					
(Not required for 50 ₂ Opt-In renewal applications.)	Unit ID#	Baseline or Alternative Baseline under	Actual SO ₂ Emissions Rate under	Allowable 1985 SO ₂ Emissions Rate under	Current Allowable SO ₂ Errissions Rate under	Current Promulgated SO: Emissions Rate under	
in column "i" enter the unit ID# for		40 CFR 74.20 (mmBtu)	40 CFR 74.22 (lbs/mm8lu)	40 CFR 74,23 (lbs/mm8tu)	40 CFR 74.24 (lbs/mmBtu)	40 CFR,74.25 (lbs/mm3tu)	
avery 50 ₂ Opt-in unit identified in column "a" (and in			(1000)		V		
column "f").							
For columns "j" through "n," enter the information							
regulred under 40 CFR 74.20-74.25							
and attach all supporting	í						
documentation required by 40 CFR							
74.20-74.25.				 			
			i				
STEP 6		n source seeks to qualify for plan as provided in 40 CFR				rgy, a	
For SO ₂ Opt-in	B. A statement who	other the combustion unit was the combustion unit is not	as previously an affe	ected unit under 40 CF	R 74.		
units only.	exemption under	r 40 CFR 72.7, 72.8, or 72.1	14.				
Attach additional requirements, certify and sign.	D. Attach a complete compliance plan for SO ₂ 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 remewal 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 attamate 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	Certification (for	designated representa	itive or alternate	designated repres	entative only)		
Read the cartification statement; provide name, title, owner company name,	submitted in this docu- information, I certify the	to this submission on behalf of certify under penalty of law that ment and ell its attachments. 8 at the statements and information on penalties for submitting false prisonment.	f I have personally exa ased on my inquiry of t on are to the best of m	mined, and am familiar w those individua's with prin y knowledge and belief tr	ich, the statements and nary responsibility for of us, accurate, and comp	information staining the fete. I am aware	
phone, and e-mail address; sign, and	Roger Fontes		G	eneral Manager and C	EO		
date.	Name Tide Florida Municipal Power Authority						
	Company Name						
	(407) 355-7767		roger.fontes@fmpa.	com			
	Phone		E-mail address				
,	Signature 608	_ aren	Hand	Date			
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SECTION V. CAIR PART FORM

CLEAN AIR INTERSTATE RULE PROVISIONS

Clean Air Interstate Rule (CAIR).

Operated by: Florida Municipal Power Authority

Plant: Treasure Coast Energy Center

ORIS Code: 56400

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

EU No.	EPA Unit ID#	Brief Description
001	1	Unit 1 consists of a General Electric PG7241 FA gas turbine electrical generator (nominal 170 MW) equipped with evaporative inlet air cooling, a heat recovery steam generator (HRSG) with supplemental duct firing, a HRSG stack, and a steam turbine electrical generator (nominal 130 MW).

<u>Clean Air Interstate Rule Application</u>. 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)) dated May 27, 2008, which is attached at the end of this section. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]

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 Renewa	l	
STEP 1	Plant Name:	State;	ORIS or EIA Plant Code:
Identify the source by plant name and ORIS or EIA plant code	Treasure Coast Energy Center	Florida	56-400
•			

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 will hold nitrogen oxides (NO _X) allowances in accordance with 40 CFR	Unit will hold sulfur dioxide (SO ₂) allowances in accordance with 40 CFR	Unit will hold NO _X Ozone Season allowances in accordance with 40 CFR	New Units Expected Commence Commercial	New Units Expected Monitor Certification
Unit ID#	98.106(c)(1)	98.206(c)(1)	96.308(c)(1)	Operation Date	Deadline
1	x	x	×		
					- Letterature
····				,	
Section 5-25 to 2		······			
		_			

DEP Form No. 62-210.900(1)(b) - Form

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STEP 3

Read the standard requirements. Plant Name (from STEP 1) Treesure Coast Energy Center

CAIR NO_x ANNUAL TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO_A source and each CAIR NO_A unit at the source shall:
 (i) Submit to the DEP a complete and cartified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the (i) Submit to the DEP a complete and certified CAIR deadlines specified in Rule 62-213.420, F.A.C.; and
- 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 98, Subpart CC, and operate the source and the unit in compliance with such CAIR

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 resortkeeping requirements of 40 CFR Part 96, Subpart HN, and Rule 62-298.470, F.A.C. (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 98, Subpart HN, 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 8.154(a) in an emount 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 98, 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 deadfine 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 allowances shall not be idealcided, for compliance with the requirements under paragraph (1) of the NO_X Requirements, for a control period in a calendary year before the year for which the CAIR NO_X allowance was all not be idealcided, for compliance with the requirements under paragraph (1) of the NO_Y Requirements, for a control period in a calendary year before the year for which the CAIR NO_X allowance was allowance as allowed the control period to the NO_Y Requirements, for a contraction of the NO_Y 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 98, Subparts FF and CG.

 (3) A CAIR NO_X allowance is a limited suthorization to emit one ton of NO_X in accordance with the CAIR NO_X Annual Tracing Program, the CAIR NO_X in accordance with the CAIR NO_X Annual Tracing Program, the CAIR NO_X in accordance with the CAIR NO_X Annual Tracing Program, the CAIR NO_X to an exemption under 40 CFR 98.105 and no provision of the CAIR NO_X with a suthorization under 40 CFR Part 98. Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_X unit.

 (6) A CAIR NO_X allowance does not constitute a pro

Excess Emissions Requirements,

- If a CAIR NO₂ source emits NO₂ during any control period in excess of the CAIR NO₂ emissions limitation, then:

 (1) The owners and operators of the source and each CAIR NO₂ unit at the source shall surrender the CAIR NO₂ allowances required for deduction under 40 CFR 86.154(d)(1) and pay any fire, 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 two of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 98, 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 between the end of 5 years, in writing by the DEP or the Administrator.

 (1) The contribute or 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 ure source and as documents used demonstrate the true of the selections in the confined to impression, provided that the confined and defined the confined to it is 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 98, Subject HH, of this part, provided that to the extent that 40 CFR 974 98, Subject HH, provides for a 2-year period the recordance provided and 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
- Tracing Program

 (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Annual Tracing Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Tracing Program.

 (2) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x with at the source shall supmit the reports required under the CAIR NO_x Annual Tracing Program, including those under 40 CFR Part 96, Subpart HH.

DEP Form No. 62-210.900(1)(b) -- Form

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Plant Name (from STEP 1) Treasure Coast Energy Center

STEP 3. Continued

Liability.

- (1) Each CAIR NO, 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 outs at the source.

 (3) Any provision of the CAIR NO_x annual Trading Program that applies to a CAIR NO_x unit 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, 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, source or CAIR NO, 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 SQ₂ source and each CAIR SQ₂ unit at the source shall;
 (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96 222 and Rute 62-298 470, F.A.C., in accordance with the deadlines specified in Rute 62-213.420, F.A.C.; and
- (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 95, 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 SO, source and each SO, CAIR unit at the source shall comply with the remotivoring, reporting, and recordskepting requirements of 46 CFR Part 98. Subpart HHH, and Rule 62-296.470, F.A.C. (2) The emissions measurements recorded and reported in accordance with 49 CFR Part 98. Subpart HHH, shall be used to determine compliance by each CAIR SO, source with the following CAIR SO, Emission Requirements.

SO₂ Emission Requirements.

- (1) As of the allowance transfer deadling 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 tomage equivalent in CAIR SO₂ allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 90.254(a) and (0), not less than the tons of total sudur clostic emissions for the control period. As determined in accordance with 40 CFR P at 95, subject to the requirements under paragraph (1) of the Suffur 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.
- of January 1, 2010 or the deagene for moveing we wisk ornalisations and the period therefore the control for the SO, Emission Requirements, (3) A CAIR SO, allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO, Emission Requirements, for a control pariod in a calendar year before the year for which the CAIR SO, allowance was allocated.

 (4) CAIR SO, allowances shall be held in deducted from, or transferred into or among CAIR SO, Allowance Tracking System accounts in
- (4) CAIR SC) anowardes shall be here in centrated from a valuation and a subsection of the accordance with 40 CFR Part 98. Subparts FFF and GGS.

 (5) A CAIR SC) allowance is a limited authorization to entit suther discide in accordance with the CAIR SC) Trading Program. No provision of the CAIR SC) 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 firmit such authorization.
- (6) A CAR SO₂ allowance does not constitute a property right.

 (7) Upon recordation by the Administrator under 40 CFR Part 98, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO₂ once to or from a CAIR SO₂ unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR

Excess Emissions Requirements.

- If a CAIR SO₂ source emits 3O₂ during any control period in excess of the CAIR 9O₂ omissions 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 88,254(q/t) 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 abate 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, Suspant AAA, the Clean Air Act, and applicable state law

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Plant Name (from STEP 1) Treasure Coast Energy Center

STEP 3 Continued

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the CAIR SO, source and each CAIR SO, until 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 entended for cause, at any lims 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 SO, unit at the source and elid documents that demonstrate the fruth of the statements in the certificate of representation; provided that the certificate and cocuments shall be retained on site at the source beyond such Syvar period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 98.213 changing the CAIR designated representative.

 (ii) All emissions monitoring information, in accordiace with 40 CFR Part 96, Subpart HiPH, of this part, provided that to the extent that 40 CFR 97 96, Subpart HiPH, provides for a 3-year period for recordiseeping, the 3-year period shall apply.

 (iii) Copies of all reports, comprisince certifications, and other submissions and all records made or required under the CAIR SO₂ Trading Program.

- (v) Copies of all documents used to complete a CAIR Plant form and any other submission under the CAIR SO₂ Tracing Program or to demonstrate compliance with the requirements of the CAIR SO₂ Tracing 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 Tracing Program, including those under 40 CFR Part 96, Subpart HHH.

- (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 SO₃ 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 federatly enforceable permit, or the Clean Air Act.

CAIR NO, OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of cach CAIR NO_X Ozone Season source and each CAIR NO_XOzone Season unit at the source shall: (i) Submit to the DEP a complete and certified CAIR Pain form under 40 CFR 98,322 and Rule 62-296 470, F.A.C., is accordance with the deadlines specified in Rule 62-213,420, F.A.C.; and
- (ii) [fiestwad]:

 (2) The owners and operators of each CAIR NO_X Ozone Season source required to have a Title V operating permit or an construction permit. and self CAR NO_X Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAR Part of the V operating permit or air construction permit at the source shall have a CAR Part included in the Title V operating permit or air construction permit at the source and operate the source and the unit in compliance with such CAIR Part.

Manitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO₄ Ozone Season source and each CAIR NO₂ Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 98, Subpart HHHH, and Rute 62-298,470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart 1911/14, shall be used to determine compliance by each CAIR NO. Ozone Season source with the following CAIR NO. Ozone Season Emissions Requirements.

NO, Ozone Season Emission Requirements.

- (1) As of the allowance trunsfer deadline for a control period, the owners and operators of each CAIR NO_A Ozone Season source and each CAIR NO_A Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_A Ozone Season allowances available for compliance deductions for the control period under 40 CFR 98,354(a) in an amount not less than the tors of total NO_A emissions for the control period from all CAIR NO_A Ozone Season units at the source, as determined in accordance with 40 CFR Pan 96, Subpart HHHH.

 (2) A CAIR NO_A Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO_A Ozone Season Emission Requirements starting on the latter of May 1, 2009 or the deadline for miceting the unit's monitor certification requirements under 40 CFR 98.376(b)(1),(2), or (3) and for each control period three after the deducted, for compliance with the requirements under paragraph (1) of the NO_A Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_A Ozone Season allowance was allocated.

- (4) CAIR NO, Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO, Ozone Season Allowance
- (4) CAR NO_X Dono Season allowances sinst be neto in, deducted from, or transferred this or among CAIN NO_X Ozona Season Allowance. Tracking System accounts in accommance with 40 CFR Part 96, Subparts FFFF and GGGC, in accordance with the CAIR NO_X Ozona Season Tracking Program. No provision of the CAIR NO_X Ozona Season Tracking Program, No provision of the CAIR NO_X Ozona Season Tracking Program, the CAIR Part, or an exemption under 40 CFR 95:305 and no provision of law that be constituted to limit the authority of the state or the United States in terminate or limit such authorization.
 (5) A CAIR NO_X Ozona 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

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CAIR NO₂ Ozone Season allowance to or from a CAIR NO₂ Ozone Season units compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_X Ozone Season unit.

Plant Name (from STEP 1)

Treasure Coast Energy Center

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 summiner the CAIR NO_x Ozone Season allowances required for deduction under 40 CFR 98.354(d)(1) and pay any tine, 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 56, Subpert AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

- (i) 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 dair 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 of the Administrator.

 (i) The certificate of representation under 40 CFR 95.313 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 that has 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 96.13 changing the CAIR designated representative.

 (ii) All emissions monitoring information, in accordance with 40 CFR 9at 96. Subpair HHHH, of this part, provided that to the extent that 40 CFR Part 96. Subpair HHHH, provides for a 3-year period for recordiseping, 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 Seasoo Trading Program.

- Ceases Insuring Program.

 (w) 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 Cozone Season source and each CAIR NO_X Ozone Season uset 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 meat the requirements of the CAIR NO_X Ozone Season
- (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 NO_X Ozone Season source shall also apply to the owners and operators of auch source and of the CAIR NO_X Ozone Season units at the source.
- (3) Any provision of the CAIR NO₂ Ozone Season Trading Program that applies to a CAIR NO₂ Ozone Season unit or the CAIR designated representative of a CAIR NO₂ 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 Ozono 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 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

STFP4

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 sutherized to make this submission on behalf of the owners and operators of the CAIR course or CAIR units for which the submission is made. I perify under penalty of law that I have personally examined, and am familiat with, the statements and information submitted in this document and all its affactments. Besed on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the beat of my knowledge and belief true, accurate, and competer. I am event that deep are significant penalties for submitting false statements and information or emitting required statements and information, including the possibility of one or impliconment.

Name Thomas E. Reedy		Title Assistant General Manager, Power Resources		
Company Owner Name Florida Muni	cipal Power Agency			
Phone (407) 355-7767	E-mail Ad	E-mail Address Tom.Reedy@fmpa.com		
Signature Tan Ree	Q-1	Date February 17, 2009		
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SECTION VI. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.

Appendix I, List of Insignificant Emissions Units and/or Activities.

Appendix NSPS, Subpart A – General Provisions.

Appendix NSPS, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Appendix NSPS Subpart KKKK, Requirements for Gas Turbines and Duct Burners.

Appendix RR, Facility-wide Reporting Requirements.

Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

° F: degrees Fahrenheit

acfm: actual cubic feet per minuteAOR: Annual Operating Report

ARMS: Air Resource Management System (Department's database)

BACT: best available control technology

Btu: British thermal units

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

CFR: Code of Federal Regulations

CO: carbon monoxide

COMS: continuous opacity monitoring system **DARM**: Division of Air Resources Management

DCA: Department of Community Affairs

DEP: Department of Environmental Protection

Department: Department of Environmental Protection

dscfm: dry standard cubic feet per minute **EPA**: Environmental Protection Agency

ESP: electrostatic precipitator (control system for reducing particulate matter)

EU: emissions unit

F.A.C.: Florida Administrative Code

F.D.: forced draft **F.S.**: Florida Statutes

FGR: flue gas recirculation

Fl: fluoride ft²: square feet ft³: cubic feet

gpm: gallons per minute

gr: grains

HAP: hazardous air pollutant

Hg: mercury

I.D.: induced draft **ID**: identification

ISO: International Standards Organization (refers to those conditions at 288 Kelvin, 60% relative humidity and

101.3 kilopascals pressure.)

kPa: kilopascalsLAT: Latitudelb: pound

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

lbs/hr: pounds per hourLONG: Longitude

MACT: maximum achievable technology

mm: millimeter

MMBtu: million British thermal units **MSDS**: material safety data sheets

MW: megawatt

NESHAP: National Emissions Standards for Hazardous Air Pollutants

NO_X: nitrogen oxides

NSPS: New Source Performance Standards

O&M: operation and maintenance

O2: oxygen

ORIS: Office of Regulatory Information Systems

OS: Organic Solvent

Pb: lead

PM: particulate matter

PM₁₀: particulate matter with a mean aerodynamic diameter of 10 microns or less

PSD: prevention of significant deterioration

psi: pounds per square inchPTE: potential to emit

RACT: reasonably available control technology

RATA: relative accuracy test auditRMP: Risk Management PlanRO: Responsible Official

SAM: sulfuric acid mist sef: standard cubic feet

scfm: standard cubic feet per minute

SIC: standard industrial classification code

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 lbs/hr: pounds per hour LONG: Longitude

MACT: maximum achievable technology

mm: millimeter

MMBtu: million British thermal units MSDS: material safety data sheets

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

MW: megawatt

NESHAP: National Emissions Standards for Hazardous Air Pollutants

NO_x: nitrogen oxides

NSPS: New Source Performance Standards

O&M: operation and maintenance

O₂: oxygen

ORIS: Office of Regulatory Information Systems

OS: Organic Solvent

Pb: lead

PM: particulate matter

PM₁₀: particulate matter with a mean aerodynamic diameter of 10 microns or less

PSD: prevention of significant deterioration

psi: pounds per square inch

PTE: potential to emit

RACT: reasonably available control technology

RATA: relative accuracy test audit
RMP: Risk Management Plan
RO: Responsible Official

SAM: sulfuric acid mist **scf**: standard cubic feet

scfm: standard cubic feet per minute

SIC: standard industrial classification code

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:

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

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

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

11033 200

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

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

LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

JEA

TCEC Initial Title V Operation Permit Application

Attachment D

List of Insignificant Emissions Units and/or Activities

FMPA

Treasure Coast Energy Center Facility ID. No.: 1110121

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:

Storage Tank	Contents	Volume (gallons)
Backup Fuel Oil Tank	Fuel Oil	930,000
CTG Lubrication Oil Tank	Lube Oil	6,200
STG Lubrication Oil Tank	Lube Oil	3,500
STG Electro-hydraulic Control Oil Tank	Hydraulic Fluid	550
Emergency Generator Fuel Tank	Diesel Fuel	1,000
Fire Pump Fuel Tank	Diesel Fuel	500
Aqueous Ammonia Tank	19 % Aqueous Ammonia	41,000

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LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

JEA TCEC Initial Title V Operation Permit Application

Attachment D

List of Trivial Activities

Indoor sand blasting and abrasive grit blasting where temporary enclosures are used to contain particulates

Open stockpiling of material

Plant grounds maintenance

Routine maintenance/repair activities such as cleaning, welding, grinding, non-asbestos insulation removal, hand held tools/equip., meter repair/maintenance, on-line/off-line cleaning of equip.

Indoor fugitives such as vacuum cleaning, solvent storage, office supplies/equipment

Testing equipment such as CEMs, stack sampling calibration gases, oxygen detector

Internal combustion engines which drive compressors, generators, water pumps, or other auxiliary equipment

HVAC (heating, ventilation, and air conditioning systems)

Vent/exhaust systems for:

Print room storage cabinets
Transformer bldg.
Maint /welding bldgs.
Operating equipment vents
Degasifier/dearators/decarbonators
Air blowers/evacuators/air locks
Oil/water separator vents

Transformers, switches, and switchgear processing (including cleaning and changing)

Generator venting

Vent/exhaust from kitchen and breakrooms

Vents/stacks for sewer lines or enclosed areas req. for safety or by code

Sewage treatment fac./equip. ranging in size from porta-john to sewage treatment plants

Steam releases

Storage and use of chemicals solely for water/waste water treatment

Transfer sumps

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APPENDIX I

LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

JEA TCEC Initial Title V Operation Permit Application Attachment D
Lawn maintenance equipment/activities
Application of fungicide, herbicide, pesticide
Air compressors and centrifuges used for compressing air
Recovered materials recycling systems including: bulb crushers, aerosol can puncturing
Waste accumulation/consolidation
Compressed air system
Storage tanks less than 550 gallons
Storage of products in sealed containers
Fires
Chemical spills, leaks & transfers
Oil spills, leaks & change out
Insulating activities
Asphalt or concrete sealing
High pressure water blasting
Excavation for construction activities
Chemical cleaning
Welding all types
Cutting all types
Sanding or grinding all types
Emissions from portable equipment Welding machines (diesel or gas) Pumps (diesel or gas)
Sweeping
Filter change out (oil & air)

August 2008

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APPENDIX I

LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

JEA TCEC Initial Title V Operation Permit Application	Attachment D
Air conditioner repairs	
Battery maintenance	
Fuel oil storage tank cleaning	
A/C servicing by licensed contractor	
Lube oil changes	
Receiving fuel oil (trucks & pipeline)	
Aerosol can use (cleaners, etc.)	
Turbine washing	
Vehicle servicing (oil changes, antifreeze changes, etc.)	
Soldering of electrical components (silver, tine solder)	
Portable equipment and tools, including electric and gasoline powered	
Electro plating	
Welding, grinding and cutting activities (metal fumes)	
Machining metal parts (cutting oil, metal fumes)	
Oil-filled electrical equipment vents	
Fume hood in laboratory	
Space heaters	
Fire and safety equipment	
Portable emergency generators	
Mercury containing equipment such as manometers	
Non-chlorinated solvent degreasing equipment	

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Vacuum pumps in laboratory operations

Equipment use for steam cleaning

SUBPART A-GENERAL PROVISIONS FOR 40 CFR 60

Updated 6/7/06

[Source: Federal Register dated 7/1/98, Federal Register 5/8/98, 2/12/99, 10/17/00, 6/28/02, 6/1/06]

Subpart A-General Provisions for 40 CFR 60

40 CFR 60.1 Applicability.

- (a) Except as provided in 40 CFR 60 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 controlagency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (CAA) as amended November 15, 1990 (42 U.S.C. 7661).

 [40 CFR 60.1(a), (b) and (c)]

40 CFR 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.

§ 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.

SUBPART A-GENERAL PROVISIONS FOR 40 CFR 60

- (2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.
- (c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

40 CFR 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 <u>date construction</u> (or reconstruction as defined under § 60.15) of an affected facility is <u>commenced</u> 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 <u>actual date of initial startup</u> of an affected facility postmarked within 15 days after such date.
- 4. A notification of <u>any physical or operational change</u> 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 40 CFR 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 40 CFR 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 40 CFR 60.8 in lieu of Method 9 observation data as allowed by 40 CFR 60.11(e)(5) of 40 CFR 60. 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 system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a 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

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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 40 CFR 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.
- (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 40 CFR 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 40 CFR 60.7(c) shall both be submitted.

[See Attached Figure 1-Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance]

- (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

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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 re-port (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
- (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 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 40 CFR 60.7(a) is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of 40 CFR 60.7(a).
- (h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[40 CFR 60.7(a), (b), (c), (d), (e), (f), (g), (h)]

40 CFR 60.8 Performance tests.

section.

(a) 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 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).

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[40 CFR 60.8(a)]

- (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 40 CFR 60.8 shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

 [40 CFR 60.8(b)(1), (2), (3), (4) & (5)]
- (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.

 [40 CFR 60.8(c)].
- (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 perfomance 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. [40 CFR 60.8(e)].
- (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,

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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.

[40 CFR 60.8(f)].

§ 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.)

40 CFR 60.10 State authority.

The provisions of 40 CFR 60 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.

 [40 CFR 60.10(a) and (b)].

40 CFR 60.11 Compliance with standards and maintenance requirements.

- (a) Compliance with standards in this part, other than opacity standards, shall be determined only by performance tests established by 40 CFR 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 40 CFR 60.11(e)(5). 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 40 CFR 60.8 unless one of the following conditions apply. If no performance test under 40 CFR 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 40 CFR 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

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these cases, the 30-day prior notification to the Administrator required in 40 CFR 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 40 CFR 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 40 CFR 60.11(e)(5), 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 40 CFR 60, 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 40 CFR 60.11(e)(3), the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with 40 CFR 60.11(b), 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 40 CFR 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 40 CFR 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of 40 CFR 60.7(e)(1) shall apply.
- (4) The 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 40 CFR 60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and 40 CFR 60.8 performance test results.
- (5) The 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 40 CFR 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 40 CFR 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 40 CFR 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 40 CFR 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 40 CFR 60.13(c), 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.

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- (6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by 40 CFR 60.8, the opacity observation results and observer certification required by 40 CFR 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 40 CFR 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 40 CFR 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, the 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 of 40 CFR 60 shall supersede any conflicting provisions of 40 CFR 60.11.

 [40 CFR 60.11(a), (b), (c), (d), (e) and (f)]

40 CFR 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.

[40 CFR 60.12]

40 CFR 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 of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to 40 CFR 60, 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 40 CFR 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 continuos opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he/she shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator

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of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of 40 CFR 60. 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 40 CFR 60.8 and as described in 40 CFR 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 40 CFR 60.13(c) at least 10 days before the performance test required under 40 CFR 60.8 is conducted.
- (2) Except as provided in 40 CFR 60.13(c)(1), 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 shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. 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 shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include 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. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.
- (e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), 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 40 CFR 60.13(c) 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 40 CFR 60.13(c) 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 40 CFR 60 shall be used.
 - (g) (1) When more than one continuous monitoring system is used to measure the emissions from only one affected facility (e.g. multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator

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- shall install an applicable continuous monitoring system on each separate effluent unless installation of fewer systems is approved by the Administrator.
- (2) When the effluents from two or more affected facilities subject to the same opacity standard are combined before being released to the atmosphere, the owner or operator may either install a continuous opacity monitoring system at a location monitoring the combined effluent or install an opacity combiner system comprised of opacity and flow monitoring systems on each stream, and shall report as per Sec. 60.7(c) on the combined effluent. When the affected facilities are not subject to the same opacity standard applicable, except for documented periods of shutdown of the affected facility, subject to the most stringent opacity standard shall apply
- (3) When the effluents from two or more affected facilities subject to the same emissions standard, other than opacity, are combined before 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 continuous monitoring standard, separate continuous monitoring systems shall be installed on each effluent and the owner or operator shall report as required for each affected facility.
- (h) 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 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. For owners or operators complying with the requirements in Sec. 60.7(f)(1) or (2), data averages must include any data recorded during periods of monitor breakdown or malfunction. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non reduced form (e.g., ppm pollutant and percent O2 or ng or pollutant per J of heat input). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

[Rule 62-296.800, F.A.C.; 40 CFR 60.13(h)].

- (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

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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.

[Rule 62-296.800, F.A.C.; 40 CFR 60.13(i)].

- (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 40 CFR 60.8 of this subpart or other tests performed
- following the criteria in 40 CFR 60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).
- (2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure that the CEMS data indicate the source emissions 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., 40 CFR 60.45(g)(2) and 40 CFR 60.45(g)(3), 40 CFR 60.73(e), and 40 CFR 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.

[Rule 62-296.800, F.A.C.; 40 CFR 60.13(j)].

40 CFR 60.14 Modification.

(a) Except as provided under 40 CFR 60.14(e) and 40 CFR 60.14(f), 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.

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[Rule 62-296.800, F.A.C.; 40 CFR 60.14(a)].

- (b) Emission rate shall be expressed as kg/hr (lbs./hour) 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 40 CFR 60.14(b)(1) 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 40 CFR 60.14(b)(1). When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in 40 CFR 60 appendix C of 40 CFR 60 shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator 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.

[Rule 62-296.800, F.A.C.; 40 CFR 60.14(b)].

(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.

[Rule 62-296.800, F.A.C.; 40 CFR 60.14(c)].

- (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 40 CFR 60.14(c) and 40 CFR 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 40 CFR 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.

[Rule 62-296.800, F.A.C.; 40 CFR 60.14(e)].

(f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.

[Rule 62-296.800, F.A.C.; 40 CFR 60.14(f)].

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- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in 40 CFR 60.14(a), compliance with all applicable standards must be achieved. [Rule 62-296.800, F.A.C.; 40 CFR 60.14(g)].
- (h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.
- (i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.
- (j) (1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.
 - (2) This exemption shall not apply to any new unit that:
 - (i) Is designated as a replacement for an existing unit;
- (ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and
 - (iii) Is located at a different site than the existing unit.
- (k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A temporary clean coal control technology demonstration project, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.
- (l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

40 CFR 60.15 Reconstruction.

(a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.

[Rule 62-296.800, F.A.C.; 40 CFR 60.15(a)].

- (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. [Rule 62-296.800, F.A.C.; 40 CFR 60.15(b)].
- (c) "Fixed capital cost" means the capital needed to provide all the depreciable components. [Rule 62-296.800, F.A.C.; 40 CFR 60.15(c)].

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- (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. [Rule 62-296.800, F.A.C.; 40 CFR 60.15(d)].
- (e) The Administrator will determine, within 30 days of the receipt of the notice required by 40 CFR 60.15(d) and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.

[Rule 62-296.800, F.A.C.; 40 CFR 60.15(e)].

- (f) The Administrator's determination under 40 CFR 60.15(e) shall be based on:
- (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
- (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
- (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
- (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements. [Rule 62-296.800, F.A.C.; 40 CFR 60.15(f)].
- (g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

[Rule 62-296.800, F.A.C.; 40 CFR 60.15(g)].

§ 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) (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).

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- (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:

Vmax=(XH2-K1)* K2

Where:

Vmax=Maximum permitted velocity, m/sec.

K1=Constant, 6.0 volume-percent hydrogen.

K2=Constant, 3.9(m/sec)/volume-percent hydrogen.

XH2=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, Vmax, 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, Vmax, as determined by the method specified in paragraph (f)(6).
- (6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.
 (d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.
- (e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.
- (f) (1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.
- (2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- (3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^{r} C_i H_i$$

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Eq. 1

where:

HT=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,
$$_{1.740 \times 10^{-7}}$$
 ($\frac{1}{ppm}$) ($\frac{g \text{ mole}}{scm}$) ($\frac{MJ}{kcal}$)

where the standard temperature for ($\frac{g \text{ mole}}{scm}$) is 20°C;

Eq. 2

Ci=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

Hi=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, Vmax, for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation. Log10 (Vmax)=(HT+28.8)/31.7

Vmax=Maximum permitted velocity, M/sec

28.8=Constant

31.7=Constant

HT=The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, Vmax, for air-assisted flares shall be determined by the following equation. Vmax=8.706+0.7084 (HT)

Vmax=Maximum permitted velocity, m/sec

8.706=Constant

0.7084=Constant

HT=The net heating value as determined in paragraph (f)(3).

§ 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 post-marked 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

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Administrator, similar to the post-mark 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) (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.
- (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.

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02/14/00

SUBPART A- STANDARDS OF PERFORMANCE FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES

Updated 7/19/06- EFFECTIVE 9/11/06

Source Federal Register Dated 7/11/06

Subpart IIII--Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

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60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

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Table 2 to Subpart IIII of Part 60--Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE < 37 KW (50 HP) and with a Displacement of < 10 liters per cylinder

Table 3 to Subpart IIII of Part 60--Certification Requirements for Stationary Fire Pump Engines

Table 4 to Subpart IIII of Part 60--Emission Standards for Stationary Fire Pump Engines

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Table 6 to Subpart IIII of Part 60--Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

Table 7 to Subpart IIII of Part 60--Requirements for Performance Tests for Stationary CI ICE with a displacement of >=30 liters per cylinder

Table 8 to Subpart IIII of Part 60--Applicability of General Provisions to Subpart IIII

Sec. 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 Cl 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.

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- (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.

Sec. 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 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.

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Sec. 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 Cl 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.

Sec. 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 Sec. Sec. 60.4201 and 60.4202 during the useful life of the engines.

Sec. 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?

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- (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).
- (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 Sec. 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 (NOX) emissions by 90 percent or more, or limit the emissions of NOX 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).

Sec. 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 Sec. 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 NOX emissions by 90 percent or more, or limit the emissions of NOX 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).

Sec. 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 Sec. Sec. 60.4204 and 60.4205 according to the manufacturer's written

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instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

Sec. 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 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 Sec. 60.4200(d) are also exempt from the fuel requirements in this section.

Sec. 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.

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- (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 Sec. Sec. 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.

Sec. 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 Sec. 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 Sec. 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.

Sec. 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 Sec. 60.4201(a) through (c) and Sec. 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.

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- (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 Sec. 60.4201(d) and Sec. 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 1 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 1 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 1 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.
- (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.

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- (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 Sec. 60.4202 but does not meet all the emission standards for non-emergency engines in Sec. 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 Sec. Sec. 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.

Sec. 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.

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- (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 Sec. Sec. 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 Sec. 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.
- (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 Sec. 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 Sec. 60.4204(b) or Sec. 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 Sec. 60.4205(c), you must comply by purchasing an engine certified to the emission standards in Sec. 60.4204(b), or Sec. 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 Sec. 60.4204(c) or Sec. 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 Sec. 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 NOX 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 NOX 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 Sec. 60.4213.

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(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 meeting standards under Sec. 60.4205 but not Sec. 60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

Sec. 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:

NTE requirement for each pollutant = $(1.25) \times (STD)$ (Eq. 1)

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary C1 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 Sec. 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 Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c), determined from the equation in paragraph (c) of this section.

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Where:

STD = The standard specified for that pollutant in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in Sec. 60.4204(a), Sec. 60.4205(a), or Sec. 60.4205(c) may follow the testing procedures specified in Sec. 60.4213, as appropriate.

Sec. 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 Sec. 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 Sec. 60.8(c).
- (c) You must conduct three separate test runs for each performance test required in this section, as specified in Sec. 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:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad (Eq. 2)$$

Where:

Ci = concentration of NOX or PM at the control device inlet,

Co = concentration of NOX or PM at the control device outlet, and

R = percent reduction of NOX or PM emissions.

(2) You must normalize the NOX or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO2) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_2}$$
 (Eq. 3)

Where:

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2.

Cd = Measured concentration of NOX or PM, uncorrected.

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5.9 = 20.9 percent O2-15 percent O2, the defined O2 correction value, percent.

%O2 = Measured O2 concentration, dry basis, percent.

- (3) If pollutant concentrations are to be corrected to 15 percent O2 and CO2 concentration is measured in lieu of O2 concentration measurement, a CO2 correction factor is needed. Calculate the CO2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.
- (i) Calculate the fuel-specific Fo value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209_{F_d}}{F_c}$$
 (Eq. 4)

Where:

Fo = Fuel factor based on the ratio of O2 volume to the ultimate CO2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O2, percent/100.

Fd = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, $dsm^3/J (dscf/10^6 \text{ Btu})$.

Fc = Ratio of the volume of CO2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($dscf/10^6$ Btu).

(ii) Calculate the CO2 correction factor for correcting measurement data to 15 percent O2, as follows:

$$X_{co_2} = \frac{5.9}{F_2}$$
 (Eq. 5)

Where:

XCO2 = CO2 correction factor, percent.

5.9 = 20.9 percent O2-15 percent O2, the defined O2 correction value, percent.

(iii) Calculate the NOX and PM gas concentrations adjusted to 15 percent O2 using CO2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2}$$
 (Eq. 6)

Where:

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2.

Cd = Measured concentration of NOX or PM, uncorrected.

%CO2 = Measured CO2 concentration, dry basis, percent.

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(e) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW-hour}$$
 (Eq. 7)

Where:

ER = Emission rate in grams per KW-hour.

Cd = Measured NOX concentration in ppm.

 1.912×10^{-3} = Conversion constant for ppm NOX 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:

$$ER = \frac{C_{adj} \times Q \times T}{KW-hour} \qquad (Eq. 8)$$

Where:

ER = Emission rate in grams per KW-hour.

Cadj = 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.

Sec. 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 Sec. 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;
 - (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.

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- (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.

Sec. 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 Sec. 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 Sec. 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 Sec. 60.4207.

Sec. 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.

Sec. 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 Cl ICE that do not use diesel fuel, or who have been given authority by the Administrator under Sec. 60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of Sec. 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 Sec. 60.4202 or Sec. 60.4203 using such fuels.

(b) [Reserved]

Sec. 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in Sec. Sec. 60.1 through 60.19 apply to you.

Sec. 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

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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 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 IIII.

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).

Tables to Subpart IIII of Part 60

TABLE 1 TO SUBPART IIII OF PART 60.—EMISSION STANDARDS FOR STATIONARY PRE-2007 MODEL YEAR ENGINES WITHA 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	Emission standards for stationary pre-2007 model year engines with a displacen	nent of <10 liters per
power	cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a d	isplacement of <10 liters
	per cylinder in g/KW-hr (g/HP-hr)	

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	NMHC + NOX	НС	NOX	СО	PM
KW<8 (HP<11)	10.5 (7.8)	N/A	N/A	8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)	N/A	N/A	6.6 (4.9)	0.80(.060)
19≤KW<37 (25≤HP<50)	9.5 (7.1)	N/A	N/A	5.5 (4.1)	0.80(.060)
37≤KW<56 (50≤HP<75)	N/A	N/A	9.2 (6.9)	N/A	N/A
56≤KW<75 (75≤HP<100)	N/A	N/A	9.2 (6.9)	N/A	N/A
75≤KW<130 (100≤HP<175)	N/A	N/A	9.2 (6.9)	N/A	N/A
130≤KW<225 (175≤HP<300)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)	N/A	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)	N/A	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 EMERGENCYSTATIONARY 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)	NOX + NMHC	СО	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)		

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:]

[As stated in § 60:4202(d), you must certify new stationary life pur	np 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	Model Years	NMHC + NOx	CO	PM
Power				
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (.75)
	2011+	7.5 (5.6)	n/a	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)	n/a	0.40 (0.30)
19≤KW<37	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
(25≤HP<50)	2011+	7.5 (5.6)	n/a	0.30 (0.22)

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			7	0.00 (0.60)
37≤KW<56	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
(50≤HP<75)	2011+1	4.7 (3.5)	n/a	0.40 (0.30)
56≤KW<75	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
(75≤HP<100)	2011+1	4.7 (3.5)	n/a	0.40 (0.30)
75≤KW<130	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
(100≤HP<175)	2010+2	6.4 (4.8)	n/a	0.30 (0.22)
130≤KW<225	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
(175≤HP<300)	2009+3	6.4 (4.8)	n/a	0.20 (0.15)
225≤KW<450	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
(300≤HP<600)	2009+3	6.4 (4.8)	n/a	0.20 (0.15)
450≤KW≤560	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
(600≤HP≤750)	2009+	6.4 (4.8)	n/a	0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)	n/a	0.20 (0.15)

¹ For 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.

TABLE 5 TO SUBPART IIII OF PART 60.—LABELING AND RECORDKEEPING REQUIREMENTS FOR **NEW STATIONARYEMERGENCY 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 Speed1	Torque (percent)2	Weighting Factors
1	Rated	100	.030
2	Rated	75	0.50
3	Rated	50	0.20

¹ Engine speed: ±2 percent of point.

TABLE 7 TO SUBPART IIII OF PART 60.—REQUIREMENTS FOR PERFORMANCE TESTS FOR STATIONARY CI ICE WITH ADISPLACEMENT 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:]

According to the For Each Complying with the You must Using following requirements requirement to (1) Method 1 or 1A of 1. Stationary CI internal a. Reduce NOX i. Select the sampling (a) Sampling sites must be located at the inlet combustion engine with port location and the 40 CFR part 60, emissions by 90 percent a displacement of ≥30 number of traverse appendix A. and outlet of the control or more. liters per cylinder. points; device. ii. Measure O2 at the (2) Method 3, 3A, or (b) Measurements to 3B of 40 CFR part 60, determine O2 inlet and outlet of the control device; appendix A. concentration must be made at the same time as the measurements for NOX concentration. iii. If necessary, (3) Method 4 of 40 (c) Measurements to

² For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CLICE 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.

³ In model years 2009-2011, manufacturers of fire pump stationary Cl 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.

² Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

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	measure moisture content at the inlet and outlet of the control device; and,	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).	determine moisture content must be made at the same time as the measurements for NOX concentration.
	iv. Measure NOX at the inlet and outlet of the control device.	(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).	(d) NOX 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.
b. Limit the concentration of NOX 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 O2 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 O2 concentration must be made at the same time as the measurement for NOX 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, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348– 03 (incorporated by reference, see § 60.17).	(c) Measurements to determine moisture content must be made at the same time as the measurement for NOX concentration.
	iv. Measure NOX at the exhaust of the stationary internal combustion engine.	(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).	(d) NOX concentration must be at 15 percent O2, dry basis. Results of this test consist of the average of the three I-hour or longer runs.
c. Reduce PM emissions by 60 percent or more.	i. Select the sampling port location and the number of traverse points;	(1) Method I or IA of 40 CFR part 60, appendix A.	(a) Sampling sites must be located at the inlet and outlet of the control device.
	ii. Measure O2 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 O2 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 O2, dry basis. Results of this test consist of the average of the three I-hour or longer runs.
d. Limit the concentration of PM in the stationary Cl internal combustion	i. Select the sampling port location and the number of traverse points;	(1) Method I or IA 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

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 engine exhaust.			device.
	ii. Determine the O2 concentration of the stationary internal combustion engine exhaust at the sampling	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A.	(b) Measurements to determine O2 concentration must be made at the same time as the measurements
	port location; and 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.	for PM concentration. (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 O2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

TABLE 8 TO SUBPART IIII OF PART 60.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART IIII

[As stated in § 60.4218, you must comply with the following applicable General Provisions:]

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 IIII.
§ 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	

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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: July 6, 2006

State Rule Effective Date: January 8, 2007

40 CFR Part 60, Subpart KKKK—Standards of Performance for Stationary Combustion Turbines

Source: 71 FR 38497, July 6, 2006, unless otherwise noted.

INTRODUCTION

§ 60.4300 What is the purpose of this subpart?

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. Any additional heat input to associated heat recovery steam generators (HRSG) or duct burners should not be included when determining your peak heat input. However, this subpart does apply to emissions from any associated HRSG and duct burners.
- (b) Stationary combustion turbines regulated under this subpart are exempt from the requirements of subpart GG of this part. Heat recovery steam generators and duct burners regulated under this subpart are exempted from the requirements of subparts Da, Db, and Dc of this part.

§ 60.4310 What types of operations are exempt from these standards of performance?

- (a) Emergency combustion turbines, as defined in §60.4420(i), are exempt from the nitrogen oxides (NO_X) emission limits in §60.4320.
- (b) Stationary combustion turbines engaged by manufacturers in research and development of equipment for both combustion turbine emission control techniques and combustion turbine efficiency improvements are exempt from the NO_x emission limits in §60.4320 on a case-by-case basis as determined by the Administrator.
- (c) Stationary combustion turbines at integrated gasification combined cycle electric utility steam generating units that are subject to subpart Da of this part are exempt from this subpart.
- (d) Combustion turbine test cells/stands are exempt from this subpart.

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)?

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- (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 (SO_2)?

- (a) If your turbine is located in a continental area, you must comply with either paragraph (a)(1) or (a)(2) of this section. If your turbine is located in Alaska, you do not have to comply with the requirements in paragraph (a) of this section until January 1, 2008.
 - (1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂in 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) If your turbine is located in a noncontinental area or a continental area that the Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit, you must comply with one or the other of the following conditions:
 - (1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂in excess of 780 ng/J (6.2 lb/MWh) gross output, or
 - (2) You must not burn in the subject stationary combustion turbine any fuel which contains total sulfur with potential sulfur emissions in excess of 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

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) When an affected unit with heat recovery utilizes a common steam header with one or more combustion turbines, the owner or operator shall either:
 - (1) 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 heat recovery unit; or
 - (2) Develop, demonstrate, and provide information satisfactory to the Administrator on methods for apportioning the combined gross energy output from the heat recovery unit for each of the affected combustion turbines. 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 related under this part.

MONITORING

§ 60.4335 How do I demonstrate compliance for NO_X if I use water or steam injection?

- (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); and
 - (2) For units complying with the output-based standard, install, calibrate, maintain, and operate a fuel flow meter (or flow meters) to continuously measure the heat input to the affected unit; and
 - (3) For units complying with the output-based standard, install, calibrate, maintain, and operate a watt meter (or meters) to continuously measure the gross electrical output of the unit in megawatt-hours; and
 - (4) For combined heat and power units complying with the output-based standard, install, calibrate, maintain, and operate meters for useful recovered energy flow rate, temperature, and pressure, to continuously measure the total thermal energy output in British thermal units per hour (Btu/h).

§ 60.4340 How do I demonstrate continuous compliance for NO_X if I do not use water or steam injection?

- (a) If you are not using water or steam injection to control NO_X emissions, you must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NO_X emission result from the performance test is less than or equal to 75 percent of the NO_X emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_X emission limit for the turbine, you must resume annual performance tests.
- (b) As an alternative, you may install, calibrate, maintain and operate one of the following continuous monitoring systems:
 - (1) Continuous emission monitoring as described in §§60.4335(b) and 60.4345, or
 - (2) Continuous parameter monitoring as follows:
 - (i) For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, you must define parameters indicative of the unit's NO_X formation characteristics, and you must monitor these parameters continuously.
 - (ii) For any lean premix stationary combustion turbine, you must continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO_X mode.
 - (iii) For any turbine that uses SCR to reduce NO_X emissions, you must continuously monitor appropriate parameters to verify the proper operation of the emission controls.
 - (iv) For affected units that are also regulated under part 75 of this chapter, with state approval you can monitor the NO_X emission rate using the methodology in appendix E to part 75 of this chapter, or the low mass emissions methodology in §75.19, the requirements of this paragraph (b) may be met by performing the parametric monitoring described in section 2.3 of part 75 appendix E or in §75.19(c)(1)(iv)(H).

§ 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_xCEMS 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 O₂concentration exceeds 19.0 percent O₂(or the hourly average CO₂concentration is less than 1.0 percent CO₂), a diluent cap value of 19.0 percent O₂or 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.
 - Permitting Note: Based on correspondence with EPA's Office of Air Quality and Planning Standards, this requirement should have been removed when NSPS Subpart KKKK was revised to add concentration-based standards (ppmvd corrected to 15% oxygen) in addition to the output-based standards (lb/MWh). The regulation is currently under reconsideration for several issues. In the mean time, EPA states that the intent is to allow sources complying with the optional concentration-based standards to correct to 15% oxygen.
- (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.
- (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:

$$E = \frac{\left(NO_{x}\right)_{b} * \left(HI\right)_{b}}{P} \qquad \left(Eq. 1\right)$$

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.
- (2) For combined-cycle and combined heat and power complying with the output-based standard, use Equation 1 of this subpart, except that the gross energy output is calculated as the sum of the total electrical and mechanical energy generated by the combustion turbine, the additional electrical or mechanical energy (if any) generated by the steam turbine following the heat recovery steam generator, and 100 percent of the total useful thermal energy output that is not used to generate additional electricity or mechanical output, expressed in equivalent MW, as in the following equations:

$$P = (Pe) + (Pe) + Ps + Po$$
 (Eq. 2)

Where:

P = gross energy output of the stationary combustion turbine system in MW.

(Pe)_t = electrical or mechanical energy output of the combustion turbine in MW,

(Pe)_c = electrical or mechanical energy output (if any) of the steam turbine in MW, and

$$Ps = \frac{Q * H}{3.413 \times 10^6 \text{ Btu/MWh}}$$
 (Eq. 3)

Where:

- Ps = useful thermal energy of the steam, measured relative to ISO conditions, not used to generate additional electric or mechanical output, in MW,
- Q = measured steam flow rate in lb/h,
- H = enthalpy of the steam at measured temperature and pressure relative to ISO conditions, in Btu/lb, and $3.413 \times 10_6$ = conversion from Btu/h to MW.
- Po = other useful heat recovery, measured relative to ISO conditions, not used for steam generation or performance enhancement of the combustion turbine.
- (3) For mechanical drive applications complying with the output-based standard, use the following equation:

$$E = \frac{(NO_x)_{m}}{BL * AL} \qquad (Eq. 4)$$

Where:

 $E = NO_X$ emission rate in lb/MWh,

 $(NO_X)_m = NO_X$ emission rate in lb/h,

BL = manufacturer's base load rating of turbine, in MW, and

AL = actual load as a percentage of the base load.

- (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) For combined cycle and combined heat and power units with heat recovery, use the calculated hourly average emission rates from paragraph (f) of this section to assess excess emissions on a 30 unit operating day rolling average basis, as described in §60.4380(b)(1).

§ 60.4355 How do I establish and document a proper parameter monitoring plan?

- (a) The steam or water to fuel ratio or other parameters that are continuously monitored as described in §§60.4335 and 60.4340 must be monitored during the performance test required under §60.8, to establish acceptable values and ranges. You may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. You must develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO_X emission controls. The plan must:
 - (1) Include the indicators to be monitored and show there is a significant relationship to emissions and proper operation of the NO_X emission controls,
 - (2) Pick ranges (or designated conditions) of the indicators, or describe the process by which such range (or designated condition) will be established,
 - (3) Explain the process you will use to make certain that you obtain data that are representative of the emissions or parameters being monitored (such as detector location, installation specification if applicable),
 - (4) Describe quality assurance and control practices that are adequate to ensure the continuing validity of the data,
 - (5) Describe the frequency of monitoring and the data collection procedures which you will use (e.g., you are using a computerized data acquisition over a number of discrete data points with the average (or maximum value) being used for purposes of determining whether an exceedance has occurred), and
 - (6) Submit justification for the proposed elements of the monitoring. If a proposed performance specification differs from manufacturer recommendation, you must explain the reasons for the differences. You must submit the data supporting the justification, but you may refer to generally available sources of information used to support the justification. You may rely on engineering assessments and other data, provided you demonstrate factors which assure compliance or explain why performance testing is unnecessary to establish indicator ranges. When establishing indicator ranges, you may choose to simplify the process by treating the parameters as if they were correlated. Using this assumption, testing can be divided into two cases:
 - (i) All indicators are significant only on one end of range (e.g., for a thermal incinerator controlling volatile organic compounds (VOC) it is only important to insure a minimum temperature, not a maximum). In this case, you may conduct your study so that each parameter is at the significant limit of its range while you conduct your emissions testing. If the emissions tests show that the source is in compliance at the significant limit of each parameter, then as long as each parameter is within its limit, you are presumed to be in compliance.
 - (ii) Some or all indicators are significant on both ends of the range. In this case, you may conduct your study so that each parameter that is significant at both ends of its range assumes its extreme values in all possible combinations of the extreme values (either single or double) of all of the other parameters. For example, if there were only two parameters, A and B, and A had a range of values while B had only a minimum value, the combinations would be A high with B minimum and A low with B minimum. If both A and B had a range, the combinations would be A high and B high, A low and B low, A high and B low, A low and B high. For the case of four parameters all having a range, there are 16 possible combinations.
- (b) For affected units that are also subject to part 75 of this chapter and that have state approval to use the low mass emissions methodology in §75.19 or the NO_X emission measurement methodology in appendix E to part 75, you may meet the requirements of this paragraph by developing and keeping on-site (or at a central location for unmanned facilities) a QA plan, as described in §75.19(e)(5) or in section 2.3 of appendix E to part 75 of this chapter and section 1.3.6 of appendix B to part 75 of this chapter.

§ 60.4360 How do I determine the total sulfur content of the turbine's combustion fuel?

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,

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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 and 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for units located in noncontinental areas or a continental area that the Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. 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 and 0.4 weight percent (4,000 ppmw) or less for noncontinental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and 140 grains of sulfur or less per 100 standard cubic feet for noncontinental areas, has potential sulfur emissions of less than less than 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for noncontinental 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 or 180 ng SO₂/J (0.42 lb SO₂/MMBtu) heat input for noncontinental 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.
 - (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.

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- (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 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.

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- (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 or 30-day 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. For the purposes of this subpart, a "30-day rolling average NO_X emission rate" is the arithmetic average of all hourly NO_X emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_X emissions rates for the preceding 30 unit operating days if a valid NO_X emission rate is obtained for at least 75 percent of all operating 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 O₂concentration, 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) For turbines required to monitor combustion parameters or parameters that document proper operation of the NO_X . emission controls:
 - (1) An excess emission is a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.
 - (2) A period of monitor downtime is a unit operating hour in which any of the required parametric data are either not recorded or are invalid.

§ 60.4385 How are excess emissions and monitoring downtime defined for SO_2 ?

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 and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, 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 asdelivered 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?

- (a) If you operate an emergency combustion turbine, you are exempt from the NO_X limit and must submit an initial report to the Administrator stating your case.
- (b) Combustion turbines engaged by manufacturers in research and development of equipment for both combustion turbine emission control techniques and combustion turbine efficiency improvements may be exempted from the NO_X limit on a case-by-case basis as determined by the Administrator. You must petition for the exemption.

§ 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) There are two general methodologies that you may use to conduct the performance tests. For each test run:
 - (i) Measure the NO_X concentration (in parts per million (ppm)), using EPA Method 7E or EPA Method 20 in appendix A of this part. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of this part, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NO_X emission rate:

$$E = \frac{1.194 \times 10^{-7} * (NO_{x})_{e} * Q_{sub}}{P}$$
 (Eq. 5)

Where:

 $E = NO_x$ emission rate, in lb/MWh

 1.194×10^{-7} = conversion constant, in lb/dscf-ppm

 $(NO_X)_c$ = average NO_X concentration for the run, in ppm

Q_{std} = stack gas volumetric flow rate, in dscf/hr

- P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to \$60.4350(f)(2); or
 - (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 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:

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- (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 ± 5ppm 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 ± 3ppm or ± 0.3 percent CO₂ (or O₂) from the mean for all traverse points; or
 - (C) For turbines with a NO_X standard less than or equal to 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 ± 2.5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ± 1ppm or ± 0.15 percent CO₂ (or O₂) from the mean for all traverse points.
- (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) For a combined cycle and CHP turbine systems with supplemental heat (duct burner), you must measure the total NO_X emissions after the duct burner rather than directly after the turbine. The duct burner must be in operation during the performance test.
 - (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 emissions 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?

If you have chosen to monitor combustion parameters or parameters indicative of proper operation of NO_X emission controls in accordance with $\S60.4340$, the appropriate parameters must be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in $\S60.4355$.

§ 60.4415 How do I conduct the initial and subsequent performance tests for sulfur?

- (a) You must conduct an initial performance test, as required in §60.8. Subsequent SO₂performance 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); or
 - (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) Measure the SO₂concentration (in parts per million (ppm)), using EPA Methods 6, 6C, 8, or 20 in appendix A of this part. In addition, the American Society of Mechanical Engineers (ASME) standard, ASME PTC 19–10–1981–Part 10, "Flue and Exhaust Gas Analyses," manual methods for sulfur dioxide (incorporated by reference, see §60.17) can be used instead of EPA Methods 6 or 20. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of this part, and measure and record the electrical and thermal output from the unit. Then use the following equation to calculate the SO₂emission rate:

$$E = \frac{1.664 \times 10^{-7} * (SO_2)_e * Q_{ad}}{P}$$
 (Eq. 6)

Where:

E = SO₂ emission rate, in lb/MWh

 1.664×10^{-7} = conversion constant, in lb/dscf-ppm

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 $(SO_2)_c$ = average SO_2 concentration for the run, in ppm

Q_{std} = stack gas volumetric flow rate, in dscf/hr

- P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to §60.4350(f)(2); or
- (3) Measure the SO₂and diluent gas concentrations, using either EPA Methods 6, 6C, or 8 and 3A, or 20 in appendix A of this part. In addition, you may use the manual methods for sulfur dioxide ASME PTC 19–10–1981–Part 10 (incorporated by reference, see §60.17). 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 SO₂emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in §60.4350(f) to calculate the SO₂emission rate in lb/MWh.
- (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.

Combined cycle combustion turbine means any stationary combustion turbine which recovers heat from the combustion turbine exhaust gases to generate steam that is only used to create additional power output in a steam turbine.

Combined heat and power combustion turbine means any stationary combustion turbine which recovers heat from the exhaust gases to heat water or another medium, generate steam for useful purposes other than additional electric generation, or directly uses the heat in the exhaust gases for a useful purpose.

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.

Combustion turbine test cell/stand means any apparatus used for testing uninstalled stationary or uninstalled mobile (motive) combustion turbines.

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.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary combustion 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.

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.

Emergency combustion turbine means any stationary combustion turbine which operates in an emergency situation. Examples include stationary combustion turbines 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 combustion turbines used to pump water in the case of fire or flood, etc. Emergency stationary combustion turbines do not include stationary combustion turbines used as peaking units at electric utilities or stationary combustion turbines at industrial facilities that typically operate at low capacity factors. Emergency combustion turbines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are required by the manufacturer, the vendor, or the insurance company associated with the turbine. Required testing of such units should be minimized, but there is no time limit on the use of emergency combustion turbines.

Excess emissions means a specified averaging period over which either (1) the NO_X emissions are higher than the applicable emission limit in ξ 60.4320; (2) the total sulfur content of the fuel being combusted in the affected facility

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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).

Heat recovery steam generating unit means a unit where the hot exhaust gases from the combustion turbine are routed in order to extract heat from the gases and generate steam, for use in a steam turbine or other device that utilizes steam. Heat recovery steam generating units can be used with or without duct burners.

Integrated gasification combined cycle 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 solid coal is directly burned in the unit during operation.

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, coalderived 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.

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, the Northern Mariana Islands, or offshore platforms.

Peak load means 100 percent of the manufacturer's design capacity of the combustion turbine at ISO conditions.

Regenerative cycle combustion turbine means any stationary combustion turbine which recovers heat from the combustion turbine exhaust gases to preheat the inlet combustion air to the combustion turbine.

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.

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.

Useful thermal output means the thermal energy made available for use in any industrial or commercial process, or used in any heating or cooling application, i.e., total thermal energy made available for processes and applications other than

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electrical or mechanical generation. Thermal output for this subpart means the energy in recovered thermal output measured against the energy in the thermal output at 15 degrees Celsius and 101.325 kilopascals of pressure.

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)	NO _X emission standard
New turbine firing natural gas, electric generating	≤ 50 MMBtu/h	42 ppm at 15 percent O ₂ or 290 ng/J of useful output (2.3 lb/MWh).
New turbine firing natural gas, mechanical drive	≤ 50 MMBtu/h	100 ppm at 15 percent O ₂ or 690 ng/J of useful output (5.5 lb/MWh).
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).
New, modified, or reconstructed turbine firing natural gas	> 850 MMBtu/h	15 ppm at 15 percent O ₂ or 54 ng/J of useful output (0.43 lb/MWh)
New turbine firing fuels other than natural gas, electric generating	≤ 50 MMBtu/h	96 ppm at 15 percent O ₂ or 700 ng/J of useful output (5.5 lb/MWh).
New turbine firing fuels other than natural gas, mechanical drive	≤ 50 MMBtu/h	150 ppm at 15 percent O ₂ or 1,100 ng/J of useful output (8.7 lb/MWh).
New turbine firing fuels other than natural gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	74 ppm at 15 percent O ₂ or 460 ng/J of useful output (3.6 lb/MWh).
New, modified, or reconstructed turbine firing fuels other than natural gas	> 850 MMBtu/h	42 ppm at 15 percent O ₂ or 160 ng/J of useful output (1.3 lb/MWh).
Modified or reconstructed turbine	≤ 50 MMBtu/h	150 ppm at 15 percent O ₂ or 1,100 ng/J of useful output (8.7 lb/MWh).
Modified or reconstructed turbine firing natural gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	42 ppm at 15 percent O ₂ or 250 ng/J of useful output (2.0 lb/MWh).
Modified or reconstructed turbine firing fuels other than natural gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	96 ppm at 15 percent O ₂ or 590 ng/J of useful output (4.7 lb/MWh).

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Turbines located north of the Arctic Circle (latitude 66.5 degrees north), turbines operating at less than 75 percent of peak load, modified and reconstructed offshore turbines, and turbine operating at temperatures less than 0 °F	≤30 MW output	150 ppm at 15 percent O ₂ or 1,100 ng/J of useful output (8.7 lb/MWh).
Turbines located north of the Arctic Circle (latitude 66.5 degrees north), turbines operating at less than 75 percent of peak load, modified and reconstructed offshore turbines, and turbine operating at temperatures less than 0 °F	> 30 MW output	96 ppm at 15 percent O ₂ or 590 ng/J of useful output (4.7 lb/MWh).
Heat recovery units operating independent of the combustion turbine	All sizes	54 ppm at 15 percent O ₂ or 110 ng/J of useful output (0.86 lb/MWh).

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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
Semi-Annual Monitoring Report	Every 6 months	RR4
Annual Operating Report	April 1	RR5
Annual Emissions Fee Form and Fee	March 1	RR6
Annual Statement of Compliance	Within 60 days after the end of each calendar year (or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement); and Within 60 days after submittal of a written agreement for transfer of responsibility, or Within 60 days after permanent shutdown.	RR7
Notification of Administrative Permit Corrections	As needed	RR8
Notification of Startup after Shutdown for More than One Year	Minimum of 60 days prior to the intended startup date or, if emergency startup, as soon as possible after the startup date is ascertained	
Permit Renewal Application	225 days prior to the expiration date of permit	TV17
Test Reports	Maximum 45 days following compliance tests	TR8

{Permitting Note: See permit Section III. Emissions Units and Specific Conditions, for any additional Emission Unit-specific reporting requirements.}

RR2. Reports of Problems.

- a. Plant Operation-Problems. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.
- b. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - (1) A description of and cause of noncompliance; and
 - (2) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
- c. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes

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- aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
- d. "Immediately" shall mean the same day, if during a workday (i.e., 8:00 a.m. 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of Rule 62-4.160(15) and 40 CFR 70.6(a)(3)(iii)(B), "promptly" or "prompt" shall have the same meaning as "immediately". [Rule 62-4.130, Rule 62-4.160(8), Rule 62-4.160(15), and Rule 62-213.440(1)(b), F.A.C.; 40 CFR 70.6(a)(3)(iii)(B)]
- RR3. Reports of Deviations from Permit Requirements. The permittee shall report in accordance with the requirements of Rule 62-210.700(6), F.A.C. (below), and Rule 62-4.130, F.A.C. (condition RR2.), deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. Rule 62-210.700(6): In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. (See condition RR2.). A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rules 62-213.440(1)(b)3.b., and 62-210.700(6)F.A.C.]

- RR4. Semi-Annual Monitoring Reports. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. [Rule 62-213.440(1)(b)3.a., F.A.C.]
- **RR5.** Annual Operating Report.
 - a. The permittee shall submit to the Compliance Authority, each calendar year, on or before April 1, a completed DEP Form No 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year.
 - b. Emissions shall be computed in accordance with the provisions of Rule 62-210.370(2), F.A.C. [Rules 62-210.370(2) & (3), and 62-213.440(3)2., F.A.C.]
- **RR6.** Annual Emissions Fee Form and Fee. Each Title V source permitted to operate in Florida must pay between January 15 and March 1 of each year, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.
 - a. If the Department has not received the fee by February 15 of the year following the calendar year for which the fee is calculated, the Department will send the primary responsible official of the Title V source a written warning of the consequences for failing to pay the fee by March 1. If the fee is not postmarked by March 1 of the year due, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee unpaid plus interest on such amount computed in accordance with Section 220.807, F.S. If the Department determines that a submitted fee was inaccurately calculated, the Department shall either refund to the permittee any amount overpaid or notify the permittee of any amount underpaid. The Department shall not impose a penalty or interest on any amount underpaid, provided that the permittee has timely remitted payment of at least 90 percent of the amount determined to be due and remits full payment within 60 days after receipt of notice of the amount underpaid. The Department shall waive the collection of underpayment and shall not refund overpayment of the fee, if the amount is less than 1 percent of the fee due, up to \$50.00. The Department shall make every effort to provide a timely assessment of the adequacy of the submitted fee. Failure to pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.
 - b. Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five (5) years and shall be made available to the Department upon request.
 - c. A completed DEP Form 62-213.900(1), "Major Air Pollution Source Annual Emissions Fee Form", must be submitted by a responsible official with the annual emissions fee.

[Rules 62-213.205(1), (1)(g), (1)(i) & (1)(j), F.A.C.]

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RR7. Annual Statement of Compliance.

- a. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit that includes all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C., using DEP Form No. 62-213.900(7). Such statement shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C., for Title V requirements and with Rule 62-214.350, F.A.C., for Acid Rain requirements. Such statements shall be submitted (postmarked) to the Department and EPA:
 - (1) Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and
 - (2) Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.
- b. In lieu of individually identifying all applicable requirements and specifying times of compliance with, non-compliance with, and deviation from each, the responsible official may use DEP Form No. 62-213.900(7) as such statement of compliance so long as the responsible official identifies all reportable deviations from and all instances of non-compliance with any applicable requirements and includes all information required by the federal regulation relating to each reportable deviation and instance of non-compliance.
- c. The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.

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

RR8. Notification of Administrative Permit Corrections.

- a. A facility owner shall notify the Department by letter of minor corrections to information contained in a permit. Such notifications shall include:
 - (1) Typographical errors noted in the permit;
 - (2) Name, address or phone number change from that in the permit;
 - (3) A change requiring more frequent monitoring or reporting by the permittee;
 - (4) A change in ownership or operational control of a facility, subject to the following provisions:
 - (a) The Department determines that no other change in the permit is necessary;
 - (b) The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the Department has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and
 - (c) The new permittee has notified the Department of the effective date of sale or legal transfer.
 - (5) Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-76510;
 - (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. 7651-76510, 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.

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- 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 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. <u>EPA Report Submission</u>. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to: Air, Pesticides & Toxics Management Division, United States Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street SW, Atlanta, GA 30303-8960. Phone: 404/562-9077.
- RR12. Acid Rain Report Submission. Acid Rain Program Information shall be submitted, as necessary, to: Department of Environmental Protection, 2600 Blair Stone Road, Mail Station #5510, Tallahassee, Florida 32399-2400. Phone: 850/488-6140. Fax: 850/922-6979.
- RR13. Report Certification. All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C. [Rule 62-213.440(1)(b)3.c, F.A.C.]
- RR14. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]
- RR15. Confidential Information. Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. Any permittee may claim confidentiality of any data or other information by complying with this procedure. [Rules 62-213.420(2), and 62-213.440(1)(d)6., F.A.C.]
- RR16. Forms and Instructions. The forms used by the Department in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The forms are listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, by contacting the appropriate permitting authority or by accessing the Department's web site at: http://www.dep.state.fl.us/Air/forms.htm.
 - a. Major Air Pollution Source Annual Emissions Fee Form (Effective 01/03/2001).
 - b. Statement of Compliance Form (Effective 06/02/2002).

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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. <u>Calculation of Emission Rate</u>. For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

TR4. Applicable Test Procedures.

- a. Required Sampling Time.
 - (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
 - (2) Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
 - (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
 - (c) The minimum observation period for opacity tests conducted by employees or agents of the

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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.

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- (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
- (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees 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

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- steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
- (3) The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct 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

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- which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- c. Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a 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.

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- (17) The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
- (18) All measured and calculated data required to be determined by each applicable test procedure for each run.
- (19) The detailed calculations for one run that relate the collected data to the calculated emission rate.
- (20) The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
- (21) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who 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. [Rules 62-213.420(1)(b)2., F.A.C.]
- TV6. Changes Without Permit Revision. Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation:
 - a. Permitted sources may change among those alternative methods of operation;
 - 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. <u>Circumvention</u>. 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. <u>Timely information</u>. 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. <u>Halting or reduction of source activity</u>. 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).

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- TV18. Permit Renewal. The permittee shall renew its permit as required by Rules 62-4.090, 62.213.420(1) and 62-213.430(3), F.A.C. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information 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. <u>Insignificant Emissions Units or Pollutant-Emitting Activities</u>. 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.]

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(Version Dated 6/22/2009)

TV24. Transfer of Permits. Per Rule 62-4.160(11), F.A.C., this permit is transferable only upon Department approval in accordance with Rule 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility. The permittee shall also comply with the 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. <u>Title</u>. 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. <u>Liability</u>. 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.]

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(Version Dated 6/22/2009)

TV30. Recordkeeping.

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five (5) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - (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).

TITLE V GENERAL CONDITIONS

(Version Dated 6/22/2009)

- (1) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
 - (a) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or,
 - (b) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
- (2) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
 - (a) A calibrated flowmeter that records data on a continuous basis, if available; or
 - (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.

TITLE V GENERAL CONDITIONS

(Version Dated 6/22/2009)

- (c) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
- (2) If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- e. Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of 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. <u>Designation and Update</u>. 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.

REFERENCED ATTACHMENTS

The Following Attachments are Included for Applicant Convenience:

Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996). Table H, Permit History.

FIGURE 1 - SUMMARY REPORT

Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996)

[Note: This form is referenced in 40 CFR 60.7, Subpart A-General Provisions		
Pollutant (Circle One): SO ₂ NO _X TRS H ₂ S	CO Opacity	
Reporting period dates: From	to	
Company:		
Emission Limitation:		
Address:		
Monitor Manufacturer:		
Date of Latest CMS Certification or Audit:		
Process Unit(s) Description:		
Total source operating time in reporting period 1:		
Emission data summary 1	CMS performance summary 1	
Duration of excess emissions in reporting period	1. CMS downtime in reporting period due to:	
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 emissions	2. Total CMS Downtime	
3. Total duration of excess emissions x (100) / [Total	3. [Total CMS Downtime] x (100) / [Total source	
source operating time]	operating time] % 2	
For opacity, record all times in minutes. For gases,	record all times in hours	
For the reporting period: If the total duration of excoperating time or the total CMS downtime is 5 percommany report form and the excess emission report	cess emissions is 1 percent or greater of the total ent or greater of the total operating time, both the	
Note: On a separate page, describe any changes since la	ast quarter in CMS, process or controls.	
I <u>certify</u> that the information contained in this report is tru	ue, accurate, and complete.	
Name:		
Signature:		
Title:		

Permit History

Permit No.	Issue Date	Expiration Date
1110121-001-AC PSD-FL-353	May 30, 2006	July 31, 2009
1110121-003-AC PSD-FL-353A		January 1, 2010

'dee_morse@nps.gov'; Catherine_collins@fws.gov; Halpin, Mike; To: Forney.Kathleen@epamail.epa.gov; Hoefert, Lee Cascio, Tom; Walker, Elizabeth (AIR) Cc: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-Subject: AV/1110121-003-AC/(PSD-FL353A) A new PSD Permit Application has been received in Florida and is currently under review. Click here to access the Scanned Permit Application: http://arm-permit2k.dep.state.fl.us/psd/1110121/0000309A.pdf ARMS PA Project ID: 1110121-002-AV/1110121-003AC PSD YES (PSD-FL-353A) NO Facility Name: Florida Municipal Power Agency Treasure Coast Energy Center Florida County: St. Lucie Project Description: Initial Title V Permit with concurrent processing of minor changes to the air construction permit.

Permit Application Processor:

Tom Cascio

Processor Phone:

(850)921-9526

Processor Email Address:

Tom.Cascio@dep.state.fl.us

Received in-house:

8/11/2008

Possible Impact Areas:

Everglades

Chassahowitska

<http://www.dep.state.fl.us/air/eproducts/apds/default.asp> .

Please direct any questions regarding this permit application to the permit application processor. If I can be of any assistance, please let me know.

Thank you!

Barbara Friday

Bureau of Air Regulation

Division of Air Resource Management (DARM)

(850)921-9524

From:

Exchange Administrator

Sent:

Friday, August 22, 2008 10:35 AM

To:

Friday, Barbara

Subject:

Delivery Status Notification (Relay)

Attachments:

ATT202970.txt; FW: New Initial Title V Operation Permit/Air Construction Permit/PSD -

1110121-002-AV/1110121-003-AC/(PSD-FL353A)





(284 B)

ATT202970.txt W: New Initial Title V Operat...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

dee_morse@nps.gov

From: System Administrator

To: Hoefert, Lee

Sent: Friday, August 22, 2008 10:35 AM
Subject: Permit/Air Construction Permit/PSD -

1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Your message

To: 'dee_morse@nps.gov'; 'Catherine_collins@fws.gov'; Halpin, Mike; 'Forney.Kathleen@epamail.epa.gov'; Hoefert, Lee

Cc: Cascio, Tom; Walker, Elizabeth (AIR)

Subject: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Sent: 8/22/2008 10:35 AM

was delivered to the following recipient(s):

Hoefert, Lee on 8/22/2008 10:35 AM

From: System Administrator

To: Cascio, Tom
Sent: Friday, August 22, 2008 10:35 AM

Subject: Delivered: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD -

1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Your message

To: 'dee_morse@nps.gov'; 'Catherine_collins@fws.gov'; Halpin, Mike; 'Forney.Kathleen@epamail.epa.gov'; Hoefert, Lee

Cc: Cascio, Tom; Walker, Elizabeth (AIR)

Subject: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Sent: 8/22/2008 10:35 AM

was delivered to the following recipient(s):

Cascio, Tom on 8/22/2008 10:35 AM

From:

System Administrator

To: Sent: Halpin, Mike; Walker, Elizabeth (AIR) Friday, August 22, 2008 10:35 AM

Subject:

Delivered: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD -

1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Your message

To:

'dee_morse@nps.gov'; 'Catherine_collins@fws.gov'; Halpin, Mike; 'Forney.Kathleen@epamail.epa.gov'; Hoefert, Lee

Cc:

Cascio, Tom; Walker, Elizabeth (AIR)

Subject:

FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Sent:

8/22/2008 10:35 AM

was delivered to the following recipient(s):

Halpin, Mike on 8/22/2008 10:35 AM

Walker, Elizabeth (AIR) on 8/22/2008 10:35 AM

From: Halpin, Mike To: Friday, Barbara

Sent: Friday, August 22, 2008 10:37 AM

Subject: Read: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-

AV/1110121-003-AC/(PSD-FL353A)

Your message

To: 'dee_morse@nps.gov'; 'Catherine_collins@fws.gov'; Halpin, Mike; 'Forney.Kathleen@epamail.epa.gov'; Hoefert, Lee

Cc: Cascio, Tom; Walker, Elizabeth (AIR)

Subject: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Sent: 8/22/2008 10:35 AM

was read on 8/22/2008 10:37 AM.

From:

Mail Delivery System [MAILER-DAEMON@mseive02.rtp.epa.gov]

Sent:

Friday, August 22, 2008 10:35 AM

To:

Friday, Barbara

Subject:

Successful Mail Delivery Report

Attachments:

Delivery report; Message Headers





Delivery report.txt (503 B)

Message

Headers.txt(2 KB)
This is the mail system at host mseive02.rtp.epa.gov.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<Forney.Kathleen@epamail.epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250 OK, sent 48AECE96 26974 100835 2 1FC0B1E42E1

From:

Cascio, Tom

To: Sent: Friday, Barbara

Sent.

Friday, August 22, 2008 10:39 AM

Subject:

Read: FW. New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-

AV/1110121-003-AC/(PSD-FL353A)

Your message

To:

'dee_morse@nps.gov'; 'Catherine_collins@fws.gov'; Halpin, Mike; 'Forney.Kathleen@epamail.epa.gov'; Hoefert, Lee

Cc:

Cascio, Tom; Walker, Elizabeth (AIR)

Subject:

FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Sent:

8/22/2008 10:35 AM

was read on 8/22/2008 10:39 AM.

From: System Administrator

To: Halpin, Mike; Walker, Elizabeth (AIR)
Sent: Friday, August 22, 2008 10:35 AM

Subject: Delivered: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD -

1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Your message

To: 'dee_morse@nps.gov'; 'Catherine_collins@fws.gov'; Halpin, Mike; 'Forney.Kathleen@epamail.epa.gov'; Hoefert, Lee

Cc: Cascio, Tom; Walker, Elizabeth (AIR)

Subject: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Sent: 8/22/2008 10:35 AM

was delivered to the following recipient(s):

Halpin, Mike on 8/22/2008 10:35 AM Walker, Elizabeth (AIR) on 8/22/2008 10:35 AM

From:

Halpin, Mike

Sent:

Friday, August 22, 2008 10:45 AM

To:

Friday, Barbara

Subject:

Delivered: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD -

1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Attachments:

ATT203023.txt



Your message was delivered to the recipient.

From:

Hoefert, Lee

To: Sent: Friday, Barbara

Friday, August 22, 2008 11:24 AM

Subject:

Read: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-

AV/1110121-003-AC/(PSD-FL353A)

Your message

To:

'dee_morse@nps.gov'; 'Catherine_collins@fws.gov'; Halpin, Mike; 'Forney.Kathleen@epamail.epa.gov'; Hoefert, Lee

Cc:

Cascio, Tom; Walker, Elizabeth (AIR)

Subject:

FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Sent:

8/22/2008 10:35 AM

was read on 8/22/2008 11:24 AM.

To: 'dee_morse@nps.gov'; Catherine_collins@fws.gov; Halpin, Mike; Hoefert, Lee;

Forney.Kathleen@epamail.epa.gov

Cc: Cascio, Tom; Walker, Elizabeth (AIR)

Subject: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-AV/1110121-

003-AC/(PSD-FL353A)

We are currently awaiting a \$250.00 application fee for processing.

If you have any questions, feel free to contact me.

Thanks, Barbara Friday (850)921-9524

From: Catherine_Collins@fws.gov

Sent: Monday, August 25, 2008 1:21 PM

To: Friday, Barbara

Subject: FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-

AV/1110121-003-AC/(PSD-FL353A)

Return Receipt

Your FW: New Initial Title V Operation Permit/Air Construction

document: Permit/PSD - 1110121-002-AV/1110121-003-AC/(PSD-FL353A)

was Catherine Collins/R9/FWS/DOI

received

by:

at: 08/25/2008 11:21:29 AM

From:

Catherine_Collins@fws.gov Monday, August 25, 2008 1:22 PM Sent:

To: Friday, Barbara

FW: New Initial Title V Operation Permit/Air Construction Permit/PSD - 1110121-002-Subject:

AV/1110121-003-AC/(PSD-FL353A)

Return Receipt

FW: New Initial Title V Operation Permit/Air Construction Your

document: Permit/PSD - 1110121-002-AV/1110121-003-AC/(PSD-FL353A)

Catherine Collins/R9/FWS/DOI was

received

by:

at: 08/25/2008 11:21:42 AM

To: esl@fpua.com

Cc: ArmbrusterSA@bv.com; Anderson, Lennon; Forney Kathleen@epamail.epa.gov;

Oquendo Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER;

1110121-002-AV/1110121-003-AC

Attachments: 1110121DraftProposedCombinedWrittenNoticeofIntent.pdf

Dear Sir/ Madam:

Attached is the official Written Notice of Intent to Issue Air 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".

<u>Note:</u> 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(s).

Click on the following link to access the permit project documents: http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/1110121.002.AV.D_pdf.zip_

Click on the following link to access the permit project documents: http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1110121.003.AC.D pdf.zip

Attention: Tom Cascio

Owner/Company Name: FLORIDA MUNICIPAL POWER AGENCY

Facility Name: TREASURE COAST ENERGY CENTER

Project Number: 1110121-002-AV Permit Status: DRAFT/PROPOSED Permit Activity: INITIAL ISSUANCE

Facility County: ST. LUCIE

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/eproducts/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)921-9524

From:

Exchange Administrator

Sent:

Wednesday, July 15, 2009 2:49 PM

To:

Friday, Barbara

Subject: Attachments: Delivery Status Notification (Relay)

ATT126766.txt; FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY

CENTER; 1110121-002-AV/1110121-003-AC

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

esl@fpua.com

From: To: System Administrator ArmbrusterSA@bv.com

Sent:

Wednesday, July 15, 2009 3:46 PM

Subject:

Delivered: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY

CENTER; 1110121-002-AV/1110121-003-AC

Your message

To: es

esl@fpua.com

Cc:

ArmbrusterSA@bv.com; Anderson, Lennon; Forney.Kathleen@epamail.epa.gov;

Oquendo. Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject:

FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-

002-AV/1110121-003-AC

Sent: 7/15/2009 2:48 PM

was delivered to the following recipient(s):

ArmbrusterSA@bv.com on 7/15/2009 2:59 PM

From:

Armbruster, Stanley A. (Stan) [ArmbrusterSA@bv.com]

To:

Friday, Barbara

Sent:

Subject:

Wednesday, July 15, 2009 7:38 PM Read: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-002-AV/1110121-003-AC

Your message

To:

ArmbrusterSA@bv.com

Subject:

was read on 7/15/2009 7:38 PM.

From:

Armbruster, Stanley A. (Stan) [ArmbrusterSA@bv.com]

Sent:

Thursday, July 16, 2009 12:34 PM

To:

Friday, Barbara

Subject:

RE: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER;

1110121-002-AV/1110121-003-AC

This is to confirm that I received the email and can view the documents in the links provided.

Regards, Stanley Armbruster Project Manager Black & Veatch Phone: 913-458-2763

Cell: 913-752-7157 Fax: 913-458-2934

From: Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]

Sent: Wednesday, July 15, 2009 1:48 PM

To: esl@fpua.com

Cc: Armbruster, Stanley A. (Stan); Anderson, Lennon; Forney.Kathleen@epamail.epa.gov;

Oquendo.Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan; Cascio, Tom

Subject: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-002-AV/1110121-003-

AC

Dear Sir/ Madam:

Attached is the official Written Notice of Intent to Issue Air 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(s).

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1110121.002.AV.D pdf.zip

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1110121.003.AC.D pdf.zjp

Attention: Tom Cascio

Owner/Company Name: FLORIDA MUNICIPAL POWER AGENCY

Facility Name: TREASURE COAST ENERGY CENTER

Project Number: 1110121-002-AV Permit Status: DRAFT/PROPOSED Permit Activity: INITIAL ISSUANCE

Facility County: ST. LUCIE

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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)921-9524

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole 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.

From: To:

System Administrator Anderson, Lennon

Sent:

Wednesday, July 15, 2009 2:48 PM

Subject:

Delivered: FLORÍDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY

CENTER; 1110121-002-AV/1110121-003-AC

Your message

To: <u>esl@fpua.com</u>

Cc:

<u>ArmbrusterSA@bv.com</u>; Anderson, Lennon; <u>Forney.Kathleen@epamail.epa.gov</u>;

Oquendo.Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject:

FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-

002-AV/1110121-003-AC

Sent: 7/15/2009 2:48 PM

was delivered to the following recipient(s):

Anderson, Lennon on 7/15/2009 2:48 PM

From: To: Anderson, Lennon Friday, Barbara

Sent:

Monday, July 20, 2009 12:37 PM

Subject:

Read: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER;

1110121-002-AV/1110121-003-AC

Your message

To:

esl@fpua.com

Cc:

ArmbrusterSA@bv.com; Anderson, Lennon; Forney.Kathleen@epamail.epa.gov;

Oquendo.Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject:

FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-

002-AV/1110121-003-AC

Sent: 7/15/2009 2:48 PM

was read on 7/20/2009 12:37 PM.

From: Mail Delivery System [MAILER-DAEMON@mseive01.rtp.epa.gov]

Sent: Wednesday, July 15, 2009 2:49 PM

To: Friday, Barbara

Subject: Successful Mail Delivery Report Attachments: Delivery report; Message Headers

This is the mail system at host mseive01.rtp.epa.gov.

Your message was successfully delivered to the destination(s) listed below. If the message was delivered to mailbox you will receive no further notifications. Otherwise you may still receive notifications of mail delivery errors from other systems.

The mail system

<Forney.Kathleen@epamail.epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250
OK, sent 4A5E247D_11356_9530_2 B456B4432C

<Quendo.Ana@epamail.epa.gov>: delivery via 127.0.0.1[127.0.0.1]:10025: 250 OK, sent 4A5E247D_11356_9530_2 B456B4432C

From:

System Administrator

To:

Nelson, Deborah; Gibson, Victoria; Cascio, Tom

Sent:

Wednesday, July 15, 2009 2:48 PM

Subject:

Delivered: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY

CENTER; 1110121-002-AV/1110121-003-AC

Your message

To:

esl@fpua.com

Cc:

<u>ArmbrusterSA@bv.com</u>; Anderson, Lennon; <u>Forney.Kathleen@epamail.epa.gov</u>;

Oquendo.Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject:

FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-

002-AV/1110121-003-AC

Sent: 7/15/2009 2:48 PM

was delivered to the following recipient(s):

Nelson, Deborah on 7/15/2009 2:48 PM

Gibson, Victoria on 7/15/2009 2:48 PM

Cascio, Tom on 7/15/2009 2:48 PM

From:

Nelson, Deborah Friday, Barbara

To: Sent:

Thursday, July 16, 2009 9:56 AM

Subject:

Read: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER;

1110121-002-AV/1110121-003-AC

Your message

To: es]

esl@fpua.com

Cc:

<u>ArmbrusterSA@bv.com</u>; Anderson, Lennon; <u>Forney.Kathleen@epamail.epa.gov</u>;

Oguendo. Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject:

FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-

002-AV/1110121-003-AC

Sent: 7/15/2009 2:48 PM

was read on 7/16/2009 9:56 AM.

From: To: Gibson, Victoria Friday, Barbara

Sent:

Wednesday, July 15, 2009 2:52 PM

Subject:

Read: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER;

1110121-002-AV/1110121-003-AC

Your message

To: esl@fpua.com

Cc:

<u>ArmbrusterSA@bv.com</u>; Anderson, Lennon; <u>Forney.Kathleen@epamail.epa.gov</u>;

Oquendo.Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject:

FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-

002-AV/1110121-003-AC

Sent: 7/15/2009 2:48 PM

was read on 7/15/2009 2:52 PM.

From:

Cascio, Tom Friday, Barbara

To: Sent:

Wednesday, July 15, 2009 3:44 PM

Subject:

Read: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER;

1110121-002-AV/1110121-003-AC

Your message

To: esl@fpua.com

Cc:

ArmbrusterSA@bv.com; Anderson, Lennon; Forney.Kathleen@epamail.epa.gov;

Oquendo.Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject:

FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-

002-AV/1110121-003-AC

Sent: 7/15/2009 2:48 PM

was read on 7/15/2009 3:44 PM.

From: System Administrator To: Holtom, Jonathan

Sent: Wednesday, July 15, 2009 2:48 PM

Subject: Delivered: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY

CENTER; 1110121-002-AV/1110121-003-AC

Your message

To: esl@fpua.com

Cc: ArmbrusterSA@bv.com; Anderson, Lennon; Forney.Kathleen@epamail.epa.gov;

Oquendo.Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-

002-AV/1110121-003-AC

Sent: 7/15/2009 2:48 PM

was delivered to the following recipient(s):

Holtom, Jonathan on 7/15/2009 2:48 PM

From:

Holtom, Jonathan Friday, Barbara

To: Sent:

Wednesday, July 15, 2009 3:00 PM

Subject:

Read: FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER;

1110121-002-AV/1110121-003-AC

Your message

To: e

esl@fpua.com

Cc:

<u>ArmbrusterSA@bv.com</u>; Anderson, Lennon; <u>Forney.Kathleen@epamail.epa.gov</u>;

Oquendo.Ana@epamail.epa.gov; Nelson, Deborah; Gibson, Victoria; Holtom, Jonathan;

Cascio, Tom

Subject:

FLORIDA MUNICIPAL POWER AGENCY - TREASURE COAST ENERGY CENTER; 1110121-

002-AV/1110121-003-AC

Sent: 7/15/2009 2:48 PM

was read on 7/15/2009 3:00 PM.