

## Memorandum

# Florida Department of Environmental Protection

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TO: Trina L Vielhauer, Bureau of Air Regulation  
THROUGH: Jonathan K. Holtom, Title V Section *JH*  
FROM: Tom Cascio *Tom*  
DATE: June 23, 2008  
SUBJECT: Draft/Proposed Air Permit No. 1050233-022-AV  
Tampa Electric Company, Polk Power Station  
Title V Air Operation Permit Revision

Attached for your review are the following items:

- Written Notice of Intent to Issue Air Permit;
- Public Notice of Intent to Issue Air Permit;
- Statement of Basis;
- Draft/Proposed Permit; and
- P.E. Certification.

The Draft/Proposed Permit incorporates the specific conditions of air construction permit 1050233-018-AC, which authorized the construction of two nominal 165 megawatt simple cycle gas turbines firing only natural gas at the Polk Power Station, which is located in Polk County, Florida. The Statement of Basis provides a summary of the project and the rationale for issuance. The P.E. certification briefly summarizes the proposed project.

The application was received and deemed complete on April 24, 2008. Day 90 is July 23, 2008. There are no ongoing/open enforcement cases for this facility, as informed to us by the Southwest District Office.

I recommend your approval of the attached Draft/Proposed Permit.

Attachments

**P.E. CERTIFICATION STATEMENT**

**PERMITTEE**


Tampa Electric Company  
Post Office Box 111  
Tampa, Florida 33601-0111

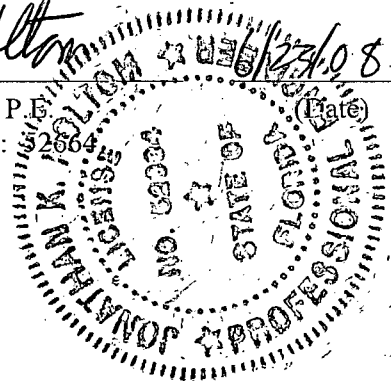
Draft 1050233-022-AV  
Facility ID No. 1050233  
Polk Power Station  
Title V Air Operation Permit Revision  
Polk County, Florida

**PROJECT DESCRIPTION**

The Revised Draft Permit incorporates the specific conditions of air construction permit 1050233-018-AC, which authorized the construction of two nominal 165 megawatt simple cycle gas turbines firing only natural gas at the Polk Power Station, which is located in Polk County, Florida.

***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).*

  
Jonathan K. Holtom, P.E.  
Registration Number: 52664





# 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

June 30, 2008

*Electronically Sent – Received Receipt Requested.*

Mr. Byron T. Burrows, P.E. (btburrows@tecoenergy.com)  
Manager, Air Programs  
Tampa Electric Company  
P.O. Box 111  
Tampa, Florida 33601-0111

Re: Draft/Proposed Permit Revision No. 1050233-022-AV  
Tampa Electric Company, Polk Power Station  
Title V Permit Revision

Dear Mr. Burrows:

Enclosed is the draft/proposed permit package to revise the Title V air operation permit for Polk Power Station. This facility is located in Polk County at 9995 State Route 37 South, Mulberry, Florida. The permit package includes the following documents:

- The Statement of Basis, which summarizes the facility, the equipment, the primary rule applicability, and the changes since the last Title V revision.
- The draft/proposed Title V air operation permit revision, which include the specific permit conditions that regulate the emissions units covered by the proposed project.
- The Written Notice of Intent to Issue Air Permit Revision provides important information regarding: the Permitting Authority's intent to issue an air permit for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue an air permit; the procedures for submitting comments on the revised Draft Permit; the process for filing a petition for an administrative hearing; and the availability of mediation.
- The Public Notice of Intent to Issue Air Permit Revision 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.

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](mailto:tom.cascio@dep.state.fl.us).

Sincerely,

Trina L. Vielhauer, Chief  
Bureau of Air Regulation

TLV/jkh/tbc

Enclosures

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**WRITTEN NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION**

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*In the Matter of an  
Application for Title V Air Operation Permit by:*

Tampa Electric Company  
Post Office Box 111  
Tampa, Florida 33601-0111

DRAFT/PROPOSED 1050233-022-AV  
Facility ID No. 1050233  
Polk Power Station  
Title V Air Operation Permit Revision  
Polk County, Florida

*Responsible Official:*  
Byron T. Burrows, P.E., Manager, Air Programs

**Facility Location:** Tampa Electric Company operates Polk Power Station, which is located at 9995 State Route 37 South in Mulberry in Polk County, Florida.

**Project:** The regulated emissions units at the solid fuel gasification facility include a 260 megawatt (electric) combined cycle combustion turbine which fires syngas or No. 2 fuel oil; an auxiliary boiler which fires No. 2 fuel oil; a sulfuric acid plant; a solid fuel handling system; a solid fuel gasification system; two nominal 165 megawatt simple cycle gas turbines firing either natural gas or No. 2 fuel oil; and two nominal 165 megawatt simple cycle gas turbines firing only natural gas. The purpose of this permit revision is to incorporate specific conditions related to the addition of the latter two gas turbines into the facility's Title V air operation permit. Construction of these gas turbines was previously authorized by air construction permit 1050233-018-AC.

Details of the project are provided in the application and the enclosed Statement of Basis.

**Permitting Authority:** Applications for Title V air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213, 62-214 and 62-296.470 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 address indicated above for the Permitting Authority. The complete project file includes the Draft/Proposed 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 Permit 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 Permit:** The Permitting Authority gives notice of its intent to issue a revised 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 proposed Draft/Proposed 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.

**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

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Tampa Electric Company  
Polk Power Station

Draft/Proposed Permit 1050233-022-AV  
Title V Permit Revision

## WRITTEN NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION

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(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 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/Proposed Title V air operation permit for a period of thirty (30) days from the date of publication of this 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 on the official web site for notices at Florida Administrative Weekly (FAW) at <http://faw.dos.state.fl.us/> and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If 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 Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

**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 petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts 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

**WRITTEN NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION**

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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 results 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 sixty (60) days of the expiration of the Administrator's 45 (forty-five) 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 thirty (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.



Trina L. Vielhauer, Chief  
Bureau of Air Regulation

**WRITTEN NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION**

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**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permit package (including the Public Notice, the Statement of Basis, and the Draft/Proposed Permit) was sent by electronic mail with received receipt requested before the close of business on 7/1/08 to the persons listed below.

- Mr. Byron T. Burrows, P.E., Tampa Electric Company: [btburrows@tecoenergy.com](mailto:btburrows@tecoenergy.com)
- Mr. Joshua D. Ellwein, P.E., Tampa Electric Company: [jdellwein@tecoenergy.com](mailto:jdellwein@tecoenergy.com)
- Mr. Thomas W. Davis, P.E., Environmental Consulting & Technology: [tdavis@ectinc.com](mailto:tdavis@ectinc.com)
- Ms. Gracy Danois, U.S. EPA Region 4: [danois.gracy@epa.gov](mailto:danois.gracy@epa.gov)
- Ms. Mara Nasca, Southwest District Office: [mara.nasca@dep.state.fl.us](mailto:mara.nasca@dep.state.fl.us)
- Ms. Barbara Friday, DEP BAR: [Barbara.Friday@dep.state.fl.us](mailto:Barbara.Friday@dep.state.fl.us) (for posting with U.S. EPA, Region 4)

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.

Barbara J. Friday 7/1/08  
(Clerk) (Date)

## PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION

Florida Department of Environmental Protection  
Division of Air Resource Management, Bureau of Air Regulation  
Draft/Proposed Air Permit Revision No. 1050233-022-AV  
Tampa Electric Company, Polk Power Station  
Polk County, Florida

**Applicant:** The applicant for this project is Tampa Electric Company. The applicant's authorized representative and mailing address is: Mr. Byron T. Burrows, P.E., Manager, Air Programs, Tampa Electric Company, Polk Power Station, Post Office Box 111, Tampa, Florida, 33601-0111.

**Facility Location:** Tampa Electric Company, operates the existing Polk Power Station, which is located in Polk County at 9995 State Route 37 South in Mulberry, Florida.

**Project:** The regulated emissions units at the solid fuel gasification facility include a 260 megawatt (electric) combined cycle combustion turbine which fires syngas or No. 2 fuel oil; an auxiliary boiler which fires No. 2 fuel oil; a sulfuric acid plant; a solid fuel handling system; a solid fuel gasification system; two nominal 165 megawatt simple cycle gas turbines firing either natural gas or No. 2 fuel oil; and two nominal 165 megawatt simple cycle gas turbines firing only natural gas. The purpose of this permit revision is to incorporate specific conditions related to the addition of the latter two gas turbines into the facility's Title V air operation permit. Construction of these gas turbines was previously authorized by air construction permit 1050233-018-AC.

**Permitting Authority:** Applications for Title V air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213, 62-214 and 62-296.470 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 Revision 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 address indicated above for the Permitting Authority. The complete project file includes the Draft/Proposed 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 Permit 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 Air Permit:** The Permitting Authority gives notice of its intent to issue an air permit revision 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, 62-213, 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 proposed Draft/Proposed Permit Revision 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 Draft/Proposed Title V Air Operation Permit Revision for a period of thirty (30) days from the date of publication of this 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

(Public Notice to be Published in the Newspaper)



## PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION

location on the official web site for notices at Florida Administrative Weekly (FAW) at <http://faw.dos.state.fl.us/> and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the Draft/Proposed Permit Revision, the Permitting Authority shall issue a Revised Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

**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 this 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) 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 petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts 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.

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**Mediation:** Mediation is not available for this proceeding.

**EPA Review:** EPA has agreed to treat the Draft/Proposed Title V Air Operation Permit Revision as a Proposed Title V Air Operation Permit Revision 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 Revision will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that results in a different decision or

(Public Notice to be Published in the Newspaper)

## **PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION**

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 sixty (60) days of the expiration of the Administrator's 45 (forty-five) 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 thirty (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>.

## STATEMENT OF BASIS

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### PROJECT DESCRIPTION

The purpose of this project is to revise Title V air operation permit No. 1050233-016-AV by incorporating specific conditions related to the addition of two new gas turbines at the facility authorized by air construction permit 1050233-018-AV.

### FACILITY DESCRIPTION

The regulated emissions units at the solid fuel gasification facility include a 260 megawatt (electric) combined cycle combustion turbine which fires syngas or No. 2 fuel oil; an auxiliary boiler which fires No. 2 fuel oil; a sulfuric acid plant; a solid fuel handling system; a solid fuel gasification system; two nominal 165 megawatt simple cycle gas turbines firing either natural gas or No. 2 fuel oil; and two nominal 165 megawatt simple cycle gas turbines firing only natural gas.

### PRIMARY REGULATORY REQUIREMENTS

The existing facility is subject to:

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.

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

PSD (Prevention of Significant Deterioration): The facility is a PSD-major facility pursuant to Rule 62-212, F.A.C.

New Source Performance Standards (NSPS): Unit 003 is subject to 40 Code of Federal Regulations (CFR) 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. Unit 005 is subject to 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants. Units 001, 009, 010, 011 and 012 are subject to 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines). They are not be subject to NSPS Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for which Construction is Commenced after February 18, 2005) because the purchase contract with General Electric was signed on July 21, 2000, which is prior to the NSPS effective date.

NESHAP: Units 011 and 012 are not subject to 40 CFR 63, Subpart YYYY (National Emissions Standard for Hazardous Air Pollutants for Stationary Combustion Gas Turbines) because the facility is not a major source of HAP.

CAIR: The facility is subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, Florida Administrative Code (F.A.C).

Siting: This plant is subject to certain requirements of Chapter 403, Part II, Florida Statutes, Electric Power Plant and Transmission Line Siting, including a modification of the conditions Site Certification PA92-32.

CAM: The facility is not subject to compliance assurance monitoring (CAM). Because continuous emissions monitors (CEMS) are used to demonstrate compliance with the applicable standards for NO<sub>x</sub> (Units 001, 009, 010, 011 and 012), a CAM plan is not required. Water injection for NO<sub>x</sub> control is the only add on pollution control device used at the facility.

## STATEMENT OF BASIS

### APPLICABLE REGULATIONS

In addition to federal rules above, this facility is subject to the following state rules:

APPLICABLE REGULATIONS	EU ID
Rule 62-4, F.A.C. (Permitting Requirements)	001, 003, 004, 005, 006, 009, 010, 011, 012
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)	
Rule 62-212, F.A.C. (Preconstruction Review, PSD Review and 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)	
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)	
PSD-FL-194	001,003, 005, 006
PSD-FL-263	009, 010
PSD-FL-363	011, 012

### PROJECT REVIEW

This permit revision incorporates the specific conditions related to the addition of the two 165 megawatt simple cycle gas turbines (Emissions Units 011 and 012) firing only natural gas.

### CONCLUSION

This project revises Title V air operation permit No. 1050233-016-AV, which was issued on January 1, 2005. This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C. 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.

Tampa Electric Company  
Polk Power Station  
Facility ID No. 1050233  
Polk County

**Title V Air Operation Permit Revision**

**DRAFT/PROPOSED Permit No. 1050233-022-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:

Department of Environmental Protection  
Southwest District Office  
13051 N. Telecom Parkway  
Temple Terrace, FL 33637-0926  
(813) 632-7600  
Fax (813) 632-7665

Title V Air Operation Permit Revision

DRAFT/PROPOSED Permit No. 1050233-022-AV

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**Permittee:**

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

**DRAFT/PROPOSED Permit No.:** 1050233-022-AV**Facility ID No.:** 1050233**SIC Nos.:** 49, 4911**Project:** Title V Air Operation Permit Revision

The purpose of this permit is to revise the facility's Title V Air Operation Permit to incorporate specific conditions of Air Construction Permit No. PSD-FL-363 (Project No. 1050233-018-AC), which authorized the construction of Simple Cycle Units 4 and 5 at the facility. This facility is located at 9995 State Route 37 South, Mulberry, Polk County; UTM Coordinates: Zone 17, 402.45 km East and 3067.35 km North; Latitude: 27° 43' 43" North and Longitude: 81° 59' 23" West.

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

**Referenced attachments made a part of this permit:**

Appendix U-1, List of Unregulated Emissions Units and/or Activities  
Appendix I-1, List of Insignificant Emissions Units and/or Activities  
APPENDIX TV-6, TITLE V CONDITIONS version dated 06/23/2006  
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)  
APPENDIX 40 CFR 60 Subpart A-General Provisions (version dated 07/23/97)  
TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)  
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION  
AND MONITORING SYSTEM PERFORMANCE REPORT (version dated 07/96)  
PHASE II ACID RAIN APPLICATION/COMPLIANCE PLAN  
EPA LETTER GRANTING THE PETITION FOR EXEMPTION FROM THE OPACITY MONITORING  
REQUIREMENTS OF PART 75 FOR POLK UNIT 1 (dated May 9, 2001)

**Effective Date:****Renewal Application Due Date:** May 20, 2009**Expiration Date:** December 31, 2009

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Joseph Kahn, Director  
Division of Air Resource Management

JK/tlv/jkh/tbc

## Section I. Facility Information.

### Subsection A. Facility Description.

The regulated emissions units at the solid fuel gasification facility include a 260 megawatt (electric) combined cycle combustion turbine which fires syngas or No. 2 fuel oil; an auxiliary boiler which fires No. 2 fuel oil; a sulfuric acid plant; a solid fuel handling system; a solid fuel gasification system; two nominal 165 megawatt simple cycle gas turbines firing either natural gas or No. 2 fuel oil; and two nominal 165 megawatt simple cycle gas turbines firing only natural gas.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V permit renewal application received on April 22, 2004, this facility is not a major source of hazardous air pollutants (HAP).

### Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

#### E.U.

<u>ID No.</u>	<u>Brief Description</u>
-001	260 MW Combined Cycle Combustion Turbine
-003	120 Million Btu per Hour Auxiliary Boiler
-004	Sulfuric Acid Plant
-005	Solid Fuel Handling System
-006	Solid Fuel Gasification System
-009	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-2
-010	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-3
-011	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-4
-012	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-5

#### Unregulated Emissions Units and/or Activities

- 007 One or more emergency generators which are not subject to the Acid Rain Program and have a total fuel consumption, in the aggregate, of 32,000 gallons per year or less of diesel fuel, 4,000 gallons per year or less of gasoline, 4.4 million cubic feet per year or less of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.
- 008 One or more heating units and general purpose internal combustion engines which are not subject to the Acid Rain Program and have a total fuel consumption, in the aggregate, of 32,000 gallons per year or less of diesel fuel, 4,000 gallons per year or less of gasoline, 4.4 million cubic feet per year or less of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.

***Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.***



### **Subsection C. Relevant Documents.**

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1: Permit History

Statement of Basis

These documents are on file with the permitting authority:

Application for a Title V Air Operation Permit Revision received on April 24, 2008.

## Section II. Facility-wide Conditions.

### The following conditions apply facility-wide:

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.  
{Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
  2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.  
[Rule 62-296.320(2), F.A.C.]
  3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.  
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
  4. 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.
  - and,
  - 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]
5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.  
[Rule 62-213.440(1), F.A.C.]
6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.  
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
7. General Pollutant Emission Limiting Standards. 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 (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.  
[Rule 62-296.320(1)(a), F.A.C.]

**8.** Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: enclosing all solid fuel storage, conveyors, and conveyor transfer points; chemical or water application to unpaved road and unpaved yard areas; paving and maintenance of roads, parking areas, and yards; landscaping or planting of vegetation; confining abrasive blasting where possible; and other techniques, as necessary, to all facilities to maintain an opacity of less than or equal to five percent.

[Rule 62-296.320(4)(c)2., F.A.C.; PSD-FL-194E]

**9.** When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

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

**10.** The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District office:

Department of Environmental Protection  
Southwest District Office  
13051 N. Telecom Parkway  
Temple Terrace, FL 33637-0926  
Telephone: 813/632-7600, Fax: 813/632-7665

**11.** Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch, Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303-8960  
Telephone: 404/562-9155, Fax: 404/562-9164

**12. Statement of Compliance.** The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.

[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-6, TITLE V CONDITIONS.)}

**13. 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.]

### Section III. Emissions Unit(s) and Conditions.

#### Subsection A. This section addresses the following emissions unit(s).

##### E.U. ID

<u>No.</u>	<u>Brief Description</u>
-001	260 MW Combined Cycle Combustion Turbine

The integrated solid fuel gasification combined cycle combustion turbine is a General Electric Model Number 7F, 260 megawatt (electric) unit capable of firing syngas or No. 2 fuel oil. The maximum heat input at 59°F is 1,755 million Btu per hour when firing syngas and 1,765 million Btu per hour when firing No. 2 fuel oil. The combustion turbine uses nitrogen diluent injection when firing syngas and water injection when firing No. 2 fuel oil to control emissions of nitrogen oxides.

{Permitting note(s): The emissions unit is regulated under Acid Rain, Phase II; NSPS – 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated February 24, 1994. The combined cycle combustion turbine began operation in April, 1996.}

#### The following Specific Conditions apply to the emissions unit(s) listed above:

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

**A.1. Permitted Capacity.** The maximum heat input rate (higher heating value) is 1,755 million Btu per hour when firing syngas and 1,765 million Btu per hour when firing No. 2 fuel oil at an ambient temperature of 59° F. Manufacturer's curves approved by the Department for the heat input correction to other temperatures may be utilized to establish heat input rates over a range of temperatures for compliance determination. Monitoring required under condition **A.13.** shall satisfy periodic monitoring requirements for heat input.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; PSD-FL-194, and, applicant agreement with EPA on January 22, 1999]

**A.2. Emissions Unit Operating Rate Limitation After Testing.** See Specific Condition **A.28.**  
[Rule 62-297.310(2), F.A.C.]

##### **A.3. Methods of Operation. Fuels.**

- a. This emissions unit fires syngas as the primary fuel.
- b. This emissions unit fires No. 2 distillate oil. The firing of No. 2 fuel oil is limited to a 10 percent annual capacity factor to be determined as follows:

[Load (%) / 100% \* hrs. of operation ≤ 876 hrs  
[Rules 62-212.400, 62-212.410, and 62-213.410, F.A.C.; and, PSD-FL-194]

**A.4. Hours of Operation.** This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

**Emission Limitations and Standards**

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

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **A.5. – A.9.** are based on the specified averaging time of the applicable test method.}

**A.5.** The maximum allowable emissions shall not exceed the following:

POLLUTANT	FUEL	BASIS <sup>a</sup>	LB / HR <sup>*</sup>	TPY <sup>b</sup>
NO <sub>x</sub>	Oil	42 ppmvd <sup>**</sup>	311	N/A
	Syngas	25 ppmvd	220.25	1,032.9
VOC <sup>c</sup>	Oil	0.028 lb/MMBtu	32	N/A
	Syngas	0.0017 lb/MMBtu	3	38.5
CO	Oil	40 ppmvd	99	N/A
	Syngas	25 ppmvd	98	430.1
PM / PM <sub>10</sub> <sup>d</sup>	Oil	0.009 lb/MMBtu	17	N/A
	Syngas	0.013 lb/MMBtu	17	74.5
Pb	Oil	5.30E-5 lb/MMBtu	0.101	N/A
	Syngas	2.41E-6 lb/MMBtu	0.0035	0.067
SO <sub>2</sub>	Oil	0.048 lb/MMBtu	92.2	N/A
	Syngas	0.17 lb/MMBtu	357	1,563.7
Sulfuric Acid <sup>e</sup>	Syngas		55	241
Inorganic Arsenic	Syngas		0.0006	0.019
Beryllium	Syngas		0.0001	0.0029
Mercury	Syngas		0.0034	0.017

(\*) Emission limitations in lb/hr are 30 day rolling averages.

(\*\*) The emission limit for NO<sub>x</sub> is adjusted as follows for higher fuel bound nitrogen contents up to a maximum of 0.030 percent, by weight:

FUEL BOUND NITROGEN (% by weight)	NO <sub>x</sub> EMISSION LEVELS (ppmvd @ 15% O <sub>2</sub> )
0.015 or less	42
0.020	44
0.025	46
0.030	48

Using the formula:  $STD = 0.0042 + F$

where:

STD = allowable  $NO_x$  emissions (% by volume at 15%  $O_2$  and on a dry basis)

F =  $NO_x$  emission allowance for fuel bound nitrogen (FBN) defined by the following table:

FUEL BOUND NITROGEN ( % by weight )	F ( $NO_x$ % by volume )
$0 < N < 0.015$	0
$0.015 < N < 0.03$	$0.04 ( N - 0.015 )$

where:

N = nitrogen content of the fuel ( % by weight )

The permittee shall submit fuel bound nitrogen content data for the low sulfur fuel oil to the Southwest District office in Tampa on each occasion that fuel oil is transferred to the storage tanks from any other source. The percent FBN (Z) following each delivery of fuel shall be determined by the following equation:

$$x (Y) + m (n) = (x+m) (Z)$$

where:

x = amount of fuel in the storage tank

Y = % FBN in the storage tank

m = amount of fuel added

n = % FBN of the fuel added

Z = % FBN of composite fuel

Use of the nitrogen oxides continuous emissions monitor to determine compliance with the standard satisfies the requirement to report the fuel bound nitrogen content data to the Southwest District office in Tampa.

( a ) Syngas lb/MMBtu values are based on heat input (HHV) to the solid fuel gasifier and includes emissions from the sulfuric acid plant thermal oxidizer. Pollutant concentrations in ppmvd are corrected to 15 percent oxygen.

( b ) Annual emission limits ( TPY ) are based on 10 percent annual capacity factor firing fuel oil.

( c ) Exclusive of background concentrations.

( d ) Excluding sulfuric acid mist.

( e ) Sulfuric acid mist emissions assume a maximum of 0.05 percent sulfur, by weight, in the fuel oil.

[PSD-FL-194(E); and, 1050233-015-AC]

**A.6.** After the demonstration period, the permittee shall operate the combustion turbine in a manner to achieve the lowest possible  $NO_x$  emission rate, but this rate shall not exceed 25 ppmvd corrected to 15 percent oxygen and ISO conditions.

[PSD-FL-194]

**A.7.** [Reserved]

[1050233-015-AC]

**A.8. Sulfur Dioxide – Sulfur Content.** The maximum sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight.  
[1050233-015-AC]

**A.9. Visible Emissions.** Visible emissions shall not exceed 10 percent opacity when firing syngas and 20 percent opacity when firing No. 2 fuel oil.  
[PSD-FL-194]

### **Excess Emissions**

**A.10.** 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.

Best operational practices shall be documented in writing and submitted to the Department. The documentation shall include limitations on excess emissions caused by turbine startup and shall be updated within thirty (30) days of implementation of any changes.  
[Rule 62-210.700(1), F.A.C.; and, 1050233-015-AC]

**A.11.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.  
[Rule 62-210.700(4), F.A.C.]

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS, NESHAP, or Acid Rain program provision.}

### **Monitoring of Operations**

**A.12.** 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 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.  
[40 CFR 60.11(d)]

**A.13.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG and using water injection to control NO<sub>x</sub> emissions shall operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within  $\pm 5.0$  percent and shall be approved by the Administrator. The use of the nitrogen oxides continuous emissions monitor satisfies this requirement.



[40 CFR 60.334(a); and, 1050233-015-AC]

**A.14.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

(2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).

Nitrogen oxide and sulfur dioxide continuous emissions monitors may be used to determine the fuel bound nitrogen and sulfur content of fuel combusted in gas turbines subject to this requirement.

[40 CFR 60.334(b)(1) & (2); and, 1050233-015-AC]

**A.15. 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.]

**Test Methods and Procedures**

{Permitting Note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**A.16.** To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.

[40 CFR 60.335(a); and , PSD-FL-194(A)]

**A.17.** During performance tests to determine compliance, measured NO<sub>x</sub> emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$\text{NO}_x = [\text{NO}_x \text{ obs}] [(P_{\text{ref}})^{0.5} / P_{\text{obs}}] e^{19} [H_{\text{obs}} - 0.00633] [288^{\circ} \text{K} / T_{\text{amb}}] 1.53$$

where:

$\text{NO}_x$  = Emissions of  $\text{NO}_x$  at 15 percent oxygen and ISO standard ambient conditions.

$\text{NO}_x \text{ obs}$  = Measured  $\text{NO}_x$  emission at 15 percent oxygen, ppmv.

$P_{\text{ref}}$  = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure.

$P_{\text{obs}}$  = Measured combustor inlet absolute pressure at test ambient pressure.

$E$  = Transcendental constant ( 2.718 )

$H_{\text{obs}}$  = Specific humidity of ambient air at test.

$T_{\text{amb}}$  = Temperature of ambient air at test.

[40 CFR 60.335©(1); and, PSD-FL-194(A)]

**A.18.** When determining compliance with 40 CFR 60.332, Subpart GG – Standards of Performance for Stationary Gas Turbines, the monitoring device of 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted  $\text{NO}_x$  standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. The use of the nitrogen oxides continuous emissions monitor satisfies this requirement. See Specific Condition A.13.

[40 CFR 60.335©(2); and, 1050233-015-AC]

**A.19.** The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 as follows:

c. U.S. EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The  $\text{NO}_x$  emissions shall be determined at each of the load conditions specified in 40 CFR 60.335©(2).

The annual RATA tests for the sulfur dioxide and nitrogen oxides continuous emissions monitors can substitute for the U.S. EPA Method 20 tests, subject to prior notification to the Department.

[40 CFR 60.335©(3); and 1050233-015-AC]

**A.20. Volatile Organic Compounds.** The test method for volatile organic compounds shall be EPA Method 18, incorporated by reference in Chapter 62-297, F.A.C.

[PSD-FL-194]

**A.21. Carbon Monoxide.** The test method for carbon monoxide shall be EPA Method 10, incorporated by reference in Chapter 62-297, F.A.C.

[PSD-FL-194]

**A.22. PM/PM10.** The test method for PM / PM<sub>10</sub> when firing oil shall be EPA Method 5B, incorporated by reference in Chapter 62-297, F.A.C.

[PSD-FL-194]

**A.23.** The owner or operator may determine compliance with the sulfur dioxide standard by calculations based on the fuel analysis for sulfur content. Certified analyses by the appropriate test method from the fuel supplier is acceptable. See Specific Condition **A.24**. Compliance with the sulfur dioxide standard may also be determined by using the sulfur dioxide continuous emissions monitor.

[1050233-015-AC]

**A.24.** The owner or operator shall determine compliance with the liquid fuel sulfur content standard of 0.05 percent, by weight, and the gaseous fuel sulfur dioxide standard as follows: ASTM D 2880-96, or the latest edition shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator. See Specific Conditions **A.5.**, **A.7.** and **A.8.**

[40 CFR 60.335(d); and, PSD-FL-194]

**A.25.** To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335 (a) and 40 CFR 60.335(d) to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency. See Specific Condition **A.14**.

[40 CFR 60.335(e)]

**A.26. Visible Emissions.** The test method for visible emissions shall be EPA Method 9, incorporated by reference in Chapter 62-297, F.A.C.

[PSD-FL-194]

**A.27. Lead, Sulfuric Acid Mist, Inorganic Arsenic, Beryllium, and Mercury.** The initial compliance test requirement for these pollutants has been satisfied and no further tests are required.

[PSD-FL-194]

**A.28. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions 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.; and, PSD-FL-194(A)]

**A.29. 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 the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

**A.30. Calculation of Emission Rate.** 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.]

**A.31. 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:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) **Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

© **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, attached to this permit.

(e) **Allowed Modification to EPA Method 5.** When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

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

**A.32.** The permittee shall comply with the requirements contained in APPENDIX SS-1, Stack Sampling Facilities, attached to this permit.

**A.33. 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.

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 Rule 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.

8. Any combustion turbine that does not operate for more than 400 hours per year shall 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.

(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 in a Department rule or in a permit issued pursuant to those rules is being violated, it may 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.

© 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 of 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 Rule 62-297.310(7)(b), F.A.C., shall apply.  
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

### **Continuous Monitoring Requirements**

**A.34.** A continuous emission monitoring system (CEMS) shall be installed, operated, and maintained in accordance with 40 CFR 60, Appendix F, and shall meet the performance specifications of 40 CFR 60, Appendix B, to monitor nitrogen oxides and a diluent gas (carbon dioxide or oxygen).  
[PSD-FL-194(A)]

**A.35.** A performance evaluation of the CEMS shall be conducted during any required performance test or within 30 days thereafter in accordance with the applicable performance specifications of 40 CFR 60, Appendix B and at other times as required by the Administrator.  
[40 CFR 60.13©; and, PSD-FL-194(A)]

**A.36.** 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 shall be checked at least once daily in accordance with a written procedure. The zero and span shall, at 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 of 40 CFR 60, 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.  
[40 CFR 60.13(d)(1); and, PSD-FL-194(A)]

**A.37.** Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d)(1), all continuous monitoring systems shall be in continuous operation and shall meet the minimum frequency of operation as follows:  
(2) All continuous monitoring systems 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.  
[40 CFR 60.13(e); and, PSD-FL-194(A)]

**A.38.** 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.  
[40 CFR 60.13(f); and, PSD-FL-194(A)]

**A.39.** 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 monitoring system breakdown, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. 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 O<sub>2</sub> or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the 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).  
[40 CFR 60.13(h); and, PSD-FL-194(A)]

### **Record Keeping and Reporting Requirements**

**A.40.** For the purpose of reports required under 40 CFR 60.7©, periods of excess emissions that shall be reported are defined as follows:

a. Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the permitted nitrogen oxide standard by the initial performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the initial performance test. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a). See Specific Condition **A.13**.

[Rule 62-296.800, F.A.C.; and, 40 CFR 60.334©(1)]

**A.41.** The 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 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar half (or quarter, as appropriate). 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.

[40 CFR 60.7©(1), (2), (3), & (4)]

**A.42.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) 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© 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© shall both be submitted.  
[40 CFR 60.7(d)(1) & (2)]

**A.43.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7©, 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 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).  
[40 CFR 60.7(e)(1)]

**A.44. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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.]

**A.45.** All recorded data shall be maintained on file by the Source for a period of five years.

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

**A.46. 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.

© The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

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

19. The detailed calculations for one run that relate the collected data to the calculated emission rate.

20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who 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.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

### **Miscellaneous Requirements.**

**A.47. Definitions.** For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.

[40 CFR 60.2; and, Rule 62-204.800(7)(a), F.A.C.]

**A.48. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 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]

**A.49.** [Reserved]

[1050233-015-AC]

**A.50.** One month after the test period ends (estimated to be by February, 2000), the permittee shall submit to the Department a NO<sub>x</sub> recommended BACT Determination as if it were a new source, using the data gathered on this facility, other similar facilities and the manufacturer's research. The Department will make a determination of BACT for NO<sub>x</sub> only and adjust the NO<sub>x</sub> emission limits accordingly.

[PSD-FL-194]

**A.51.** [Reserved]

[1050233-015-AC]

**A.52.** [Reserved]

**A.53.** During syngas firing, the SO<sub>2</sub> emission rate shall be monitored by the CEM for purposes of periodic monitoring.

[Applicant agreement with EPA on January 22, 1999]

**A.54. Additional Monitoring for Nitrogen Oxides.** The permittee shall maintain and submit to the Department, on an annual basis for a period of five years from the date the unit begin firing

syngas produced from blends of petroleum coke and coal, CEMS data demonstrating that the operational changes did not result in a significant emissions increase of nitrogen oxides when compared to the past actual coal levels. The CEMS data shall be of the periods when the unit is burning syngas produced from pet coke/coal blends containing a maximum amount of pet coke of up to 60 percent, by weight.

[PSD-FL-194(E)]

**A.55. Additional Monitoring for Sulfur Dioxide.** The permittee shall maintain and submit to the Department on an annual basis for a period of five years from the date the unit began firing syngas produced from blends of petroleum coke and coal, CEMS data demonstrating that the operational changes did not result in a significant emissions increase of sulfur dioxide when compared to the past actual coal levels. The CEMS data shall be of the periods when the unit is burning syngas produced from pet coke/coal blends containing a maximum amount of pet coke of up to 60 percent, by weight.

[PSD-FL-194(E)]

**A.56. Additional Monitoring for Sulfuric Acid Mist.** The permittee shall maintain and submit to the Department on an annual basis for a period of five years from the date the unit begin firing syngas produced from blends of petroleum coke and coal, test results demonstrating that the operation changes did not result in a significant emissions increase of sulfuric acid mist when compared to the past actual coal levels. The sulfuric acid mist emissions shall be based on test results using EPA Method 8. The test shall be conducted when the unit is burning syngas produced from pet coke/coal blends containing a maximum amount of pet coke of up to 60 percent, by weight.

[PSD-FL-194(E)]

**A.57. Recordkeeping.** To determine compliance with the syngas and fuel oil firing heat input limitation, the permittee shall maintain daily records of syngas and fuel oil consumption for the turbine and heating value for each fuel. All records shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Department upon request.

The permittee shall maintain and submit to the Department, on an annual basis for a period of five years from the date the unit begin firing syngas produced from blends of petroleum coke and coal, data demonstrating that the operational change associated with the use of petroleum coke did not result in a significant emission increase pursuant to Rule 62-210.200(12)(d), F.A.C.

[PSD-FL-194(E)]

### Section III. Emissions Unit(s) and Conditions.

#### Subsection B. This section addresses the following emissions unit(s).

##### E.U. ID

<u>No.</u>	<u>Brief Description</u>
-003	120 Million Btu per Hour Auxiliary Boiler

The Auxiliary Boiler produces steam for in-plant use and has a maximum heat input of 120.0 million Btu per hour. The boiler is fired with only very low sulfur fuel oil and has a capacity factor of less than or equal to 35 percent. The boiler can be continuously fired in a standby mode with full operation limited to a maximum of 3,000 hours per year. No add-on emissions control devices are employed by the emissions unit.

{Permitting note(s): The emissions unit is regulated under NSPS – 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated February 24, 1994; Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with less than 250 Million Btu per Hour Heat Input, New and Existing Units. The Auxiliary Boiler began operation in April, 1996.}

#### The following Specific Conditions apply to the emissions unit(s) listed above:

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

**B.1. Permitted Capacity.** The maximum process/operation rate heat input (higher heating value) is 120.0 million Btu per hour.

[Rules 62-4.160(2), F.A.C. and 62-210.200(PTE), F.A.C. and, PSD-FL-194(A)]

**B.2. Emissions Unit Operating Rate Limitation After Testing.** See Specific Condition **B.25**.

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

**B.3. Methods of Operation. Fuels.** This emissions unit fires only very low sulfur No. 2 distillate oil.

[Rules 62-212.400, 62-212.410, and 62-213.410, F.A.C.; and, PSD-FL-194]

**B.4. Hours of Operation.**

a. Standby Mode: This emissions unit may operate in a standby mode continuously, i.e., 8,760 hours/year.

b. Non-Standby Modes: The hours of operation for this emissions unit shall not exceed 3,000 hours/year.

[Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-194(A)]

## **Emission Limitations and Standards**

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

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **B.5. – B.12.** are based on the specified averaging time of the applicable test method.}

**B.5. Sulfur Dioxide.** Sulfur dioxide emissions shall not exceed 0.80 pound per million Btu heat input.

[40 CFR 60.42b(a) & (j) and, PSD-FL-194]

**B.6. Sulfur Dioxide.** Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in 40 CFR 60.45b© or 40 CFR 60.45b(d), and following the monitoring procedures as described in 40 CFR 60.47b(a) or 40 CFR 60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or (2) maintaining fuel receipts as described in 40 CFR 60.49b©.

[40 CFR 60.42b(j) and, PSD-FL-194]

**B.7. Sulfur Dioxide – Sulfur Content.** The maximum sulfur content of the very low sulfur No. 2 fuel oil shall not exceed 0.05 percent, by weight. See Specific Condition **B.52.**

[PSD-FL-194]

**B.8. Sulfur Dioxide.** Compliance with the emission limits and the fuel oil sulfur limits are determined on a 30-day rolling average basis.

[40 CFR 60.42b(e) and, PSD-FL-194]

**B.9. Particulate Matter.** Particulate matter emissions shall not exceed 43 ng/J (0.10 pound per million Btu) heat input.

[40 CFR 60.43b(b) and, PSD-FL-194]

**B.10. Visible Emissions.** Visible emissions shall not exceed 20 percent opacity (six-minute average), except for one six-minute period per hour during which opacity shall not exceed 27 percent.

[40 CFR 60.43b(f); and, PSD-FL-194(A)]

**B.11. Nitrogen Oxides.** Emissions of nitrogen oxides (expressed as NO<sub>2</sub>) shall not exceed 0.10 pound per million Btu heat input.

[40 CFR 60.44b(a); and, PSD-FL-194(A)]

**B.12. Nitrogen Oxides.** Compliance with the emission limits is determined on a 30-day rolling average basis.

[40 CFR 60.44b(i)]

## **Excess Emissions**

**B.13. Sulfur Dioxide.** The sulfur dioxide emission limitations apply at all times, including periods of startup, shutdown and malfunction.  
[40 CFR 60.42b(g) and, PSD-FL-194]

**B.14. Particulate Matter and Opacity.** The particulate matter and opacity standards apply at all times, except during periods of startup, shutdown or malfunction.  
[40 CFR 60.43b(g) and, PSD-FL-194]

**B.15. Nitrogen Oxides.** The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction.  
[40 CFR 60.44b(4) and, PSD-FL-194]

**B.16.** Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.  
[Rule 62-210.700(1), F.A.C.]

**B.17.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.  
[Rule 62-210.700(4), F.A.C.]  
{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS, NESHAP, or Acid Rain program provision.}

## **Monitoring of Operations**

**B.18. 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.]

## **Test Methods and Procedures**

{Permitting Note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**B.19. Sulfur Dioxide.** The owner or operator shall determine compliance with the fuel sulfur limit of Specific Condition **B.7.** by using method ASTM D 2880-71, or the latest edition.  
[PSD-FL-194]

**B.20. Particulate Matter.** The test methods for particulate matter are as follows:

- (1) Method 3B is used for gas analysis when applying Method 5 or Method 17.
- (2) Method 5 or Method 17 shall be used to measure the concentration of particulate matter as follows:
  - (i) Method 5 shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and
  - (ii) Method 17 may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160°C (320°F).
- (3) Method 1 is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.
- (4) For Method 5, the temperature of the sample gas in the probe and filter holder is monitored and maintained at 160°C (320°F).
- (5) For determination of particulate matter emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Method 5 or Method 17 by traversing the duct at the same sample location.
- (6) For each run using Method 5 or Method 17, the emission rate expressed in nanograms per joule heat input is determined using:
  - (i) The oxygen or carbon dioxide measurements and the particulate matter measurements obtained under this section,
  - (ii) The dry basis F factor, and
  - (iii) The dry basis emission rate calculation procedure contained in Method 19 (appendix A).

[40 CFR 60.46b(d)(1) – (6) and, PSD-FL-194]

**B.21. Visible Emissions.** The test method for visible emissions shall be EPA Method 9, incorporated by reference in Chapter 62-297, F.A.C.  
[40 CFR 60.46b(d)(7); and, PSD-FL-194]

**B.22. Nitrogen Oxides.** The test method for nitrogen oxides shall be EPA Method 7, 7A, 7C, 7D, or 7E, incorporated by reference in Chapter 62-297, F.A.C.  
The annual RATA test for the nitrogen oxides continuous emissions monitor can substitute for the U.S. EPA Method 7, 7A, 7C, 7D, or 7E test, subject to prior notification to the Department.  
[PSD-FL-194; and, 1050233-015-AC]

**B.23. Nitrogen Oxides.** The owner or operator of the affected facility shall upon request determine compliance with the nitrogen oxides standard through use of a 30-day performance

test. During periods when performance tests are not requested, nitrogen oxides emissions data collected pursuant to 40 CFR 60.48b(g)(1) or 40 CFR 60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emissions reports, but will not be used to determine compliance with the nitrogen oxides emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

[40 CFR 60.46b(e)(4) and, PSD-FL-194]

**B.24. 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 the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

**B.25. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions 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.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

**B.26. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

**B.27. 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:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(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, attached to this permit. [Rule 62-297.310(4), F.A.C.]

**B.28. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**B.29. 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.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid 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 Rule 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 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 fuel, other than during startup, for a total of more than 400 hours.

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.

(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 in a Department rule or in a permit issued pursuant to those rules is being violated, it may 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.

© 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 of 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 Rule 62-297.310(7)(b), F.A.C., shall apply.  
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

**B.30.** By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.]

{Permitting note: Any operational mode where liquid fuel(s) are burned are used to determine the annual hours of operation while burning liquid fuel(s).}

### **Continuous Monitoring Requirements**

**B.31. Sulfur Dioxide.** The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the emission monitoring requirements of 40 CFR 60.47b if the owner or operator obtains fuel receipts as described in 40 CFR 60.49b©.

[40 CFR 60.45b(j) and 40 CFR 60.47b(f) and, PSD-FL-194]

**B.32. Particulate Matter.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system for measuring opacity of emissions discharged to the atmosphere and record the output of the system.

[40 CFR 60.48b(a) and, PSD-FL-194]

**B.33. Nitrogen Oxides.** The owner or operator of an affected facility subject to the nitrogen oxides standards under 40 CFR 60.44b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

[40 CFR 60.48b(b) and, PSD-FL-194]

**B.34. Nitrogen Oxides.** The continuous monitoring system shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

[40 CFR 60.48b(c) and, PSD-FL-194]

**B.35. Nitrogen Oxides.** The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by 40 CFR 60.48b(b) and required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(b). At least 2 data points must be used to calculate each 1-hour average.

[40 CFR 60.48b(d) and, PSD-FL-194]

**B.36. Nitrogen Oxides.** For affected facilities combusting oil, the span value for nitrogen oxides is 500 ppm.

[40 CFR 60.48b(e)(2) and, PSD-FL-194]

**B.37. Nitrogen Oxides.** When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring system, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

[40 CFR 60.48b(f) and, PSD-FL-194]

### **Recordkeeping and Reporting Requirements**

**B.38.** The owner or operator of an affected facility shall record and maintain records of the amount of fuel combusted during each day and calculate the annual capacity factor for the fuel for each calendar quarter. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

[40 CFR 60.49b(d) and, PSD-FL-194]

**B.39.** For facilities subject to the opacity standard under 40 CFR 60.43b, the owner or operator shall maintain records of opacity.

[40 CFR 60.49b(f) and, PSD-FL-194]

**B.40. Nitrogen Oxides.** The owner or operator of an affected facility subject to the nitrogen oxides standards shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date.

- (2) The average hourly nitrogen oxides emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/million Btu heat input) measured or predicted.
  - (3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.
  - (4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.
  - (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including the reasons for not obtaining sufficient data and a description of corrective actions taken.
  - (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
  - (7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
  - (8) Identification of the times when pollutant concentration exceeded full span of the continuous monitoring system.
  - (9) Descriptions of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.
  - (10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60 Appendix F, Procedure 1.
- [40 CFR 60.49b(g) and, PSD-FL-194]

**B.41. Excess Emissions.** The owner or operator of any affected facility in any category listed in paragraphs (1) or (2) below is required to submit excess emission reports for any calendar quarter during which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period.

- (1) Any affected facility subject to the opacity standards under 40 CFR 60.43b(e) or to the operating parameter monitoring requirements under 40 CFR 60.13(I)(1).
  - (2) Any affected facility that is subject to the nitrogen oxides standard under 40 CFR 60.44b, and that
    - (i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less, or
    - (ii) Has a heat input capacity of 73 MW (250 million Btu/hour) or less and is required to monitor nitrogen oxides emissions on a continuous basis under 40 CFR 60.48b(g)(1) or steam unit operating conditions under 40 CFR 60.48b(g)(2).
  - (3) For the purpose of 40 CFR 60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under 40 CFR 60.43b(f).
  - (4) For purposes of 40 CFR 60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined under 40 CFR 60.46b(e), which exceeds the applicable emission limits in 40 CFR 60.44b.
- [40 CFR 60.49b(h) and, PSD-FL-194]

**B.42.** The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under 40 CFR 60.48b shall submit a quarterly report containing

the information recorded under 40 CFR 60.49b(g). All quarterly reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar quarter.

[40 CFR 60.49b(i) and, PSD-FL-194]

**B.43.** The owner or operator of any affected facility subject to the sulfur dioxide standards under 40 CFR 60.42b shall submit quarterly reports to the Administrator for every calendar quarter. All quarterly reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar quarter.

[40 CFR 60.49b(j) and, PSD-FL-194]

**B.44.** The owner or operator of any affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under 40 CFR 60.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in 40 CFR 60.41b. For the purposes of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Quarterly reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the preceding quarter.

[40 CFR 60.49b© and, PSD-FL-194]

**B.45.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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.]

**B.46.** All recorded data shall be maintained on file by the Source for a period of five years.

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

**B.47.** Submit to the Department a written report of emissions in excess of emission limiting standards for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years.

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

**B.48. 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.

© The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.

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

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

**B.49.** Records of the hours of non-standby operation of the auxiliary boiler will be kept for purposes of periodic monitoring.

[Applicant agreement with EPA on January 22, 1999]

## **Miscellaneous Requirements.**

**B.50. Definitions.** For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term “Administrator” when used in 40 CFR 60, shall mean the Secretary or the Secretary’s designee.  
[40 CFR 60.2; and, Rule 62-204.800(7)(a), F.A.C.]

**B.51. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 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 and, PSD-FL-194]

**B.52. Sulfur Content of Fuel.** The maximum sulfur content of the low sulfur fuel oil shall not exceed 0.05 percent, by weight. Compliance shall be demonstrated by testing for sulfur content of the fuel oil in the storage tanks once per day when firing oil. Testing for fuel oil heating value shall also be conducted on the same schedule. See Specific Condition **B.7.**  
[PSD-FL-194]

**B.53.** The permittee shall comply with the requirements contained in Appendix 40 CFR 60, Subpart A, attached to this permit.  
[Rule 62-204.800(7)(d), F.A.C.]

### Section III. Emissions Unit(s) and Conditions.

#### Subsection C. This section addresses the following emissions unit(s).

##### E.U. ID

<u>No.</u>	<u>Brief Description</u>
-004	Sulfuric Acid Plant

The sulfuric acid plant takes a sulfur gas stream from the solid fuel gasification plant's hot gas cleanup or cold gas cleanup systems and converts it to sulfuric acid using the double contact process. The sulfuric acid plant has a 15 million Btu per hour, propane fired, H<sub>2</sub>S to SO<sub>2</sub> conversion furnace which vents to the atmosphere only during warm-up; and a 9 million Btu per hour, propane fired, non-contact SO<sub>2</sub> to SO<sub>3</sub> converter preheater which is vented to the atmosphere. The sulfuric acid plant has a maximum production rate of 77,640 tons per year of 100 percent sulfuric acid.

{Permitting note(s): The emissions unit is regulated under Rule 62-296.402, F.A.C., Sulfuric Acid Plants}

#### The following Specific Conditions apply to the emissions unit(s) listed above:

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

**C.1. Permitted Capacity.** Plant production shall not exceed 77,640 tons per year of 100 percent sulfuric acid.

[Rules 62-4.160(2), F.A.C. and 62-210.200(PTE), F.A.C.]

{Permitting note: The maximum hourly production rate indicated in the permit application is 8.90 tons per hour of 100 percent sulfuric acid.}

**C.2. Emissions Unit Operating Rate Limitation After Testing.** See Specific Condition C.16.

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

**C.3. Methods of Operation. Fuels.** The conversion furnace fires only propane.

[Rule 62-213.410, F.A.C.]

**C.4. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.

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

##### Emission Limitations and Standards

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



{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions C.5. – C.7. are based on the specified averaging time of the applicable test method.}

**C.5. Visible Emissions.** Visible emissions shall not exceed ten percent opacity.  
[Rule 62-296.402(2)(a), F.A.C.]

**C.6. Sulfur Dioxide.** Sulfur dioxide emissions shall not exceed four pounds per ton of 100 percent acid produced.  
[Rule 62-296.402(2)(b), F.A.C.]

**C.7. Acid Mist.** Acid mist shall not exceed 0.15 pound per ton of 100 percent acid produced.  
[Rule 62-296.402(2)(c), F.A.C.]

### **Excess Emissions**

**C.8.** Excess emissions from this emissions unit resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. Best operational practices shall be documented in writing and submitted to the Department.  
[Rule 62-210.700(1), F.A.C.]

**C.9.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.  
[Rule 62-210.700(4), F.A.C.]

### **Monitoring of Operations**

**C.10. 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.]

**C.11.** The owner or operator shall observe and record a quantified visible emission observation, six minutes in duration, for the sulfuric acid plant on a daily basis, for the purpose of periodic monitoring.

[Applicant agreement with EPA on January 22, 1999]

## **Test Methods and Procedures**

{Permitting Note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**C.12. Visible Emissions.** The test method for visible emissions shall be DEP Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.  
[Rule 62-296.402(3)(a), F.A.C.]

**C.13. DEP Method 9.** The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

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

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.  
[Rule 62-297.401, F.A.C.]

**C.14. Acid Mist/Sulfur Dioxide.** The test method for acid mist shall be EPA Method 8, incorporated and adopted by reference in Chapter 62-297, F.A.C., or an alternative method approved by the Department. The minimum sample volume for the EPA Method 8 test shall be 40 dry standard cubic feet. The test method for sulfur dioxide shall be EPA Method 6C, incorporated and adopted by reference in Chapter 62-297, F.A.C., or an alternative method approved by the Department.  
[Rule 62-296.402(3)(b), F.A.C.; and, applicant request received November 25, 2002]

**C.15. 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 the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

**C.16. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions 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.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

**C.17. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

**C.18. 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:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(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, attached to this permit.

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

**C.19. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.]

**C.20. 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.**

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 Rule 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 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.

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.

(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 in a Department rule or in a permit issued pursuant to those rules is being violated, it may 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.

© **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 of 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 Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

### **Record keeping and Reporting Requirements**

**C.21.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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.]

**C.22.** All recorded data shall be maintained on file by the Source for a period of five years.

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

#### **C.23. 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.

© The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who 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.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

**C.24.** Record, in tons, the daily production of 100 percent sulfuric acid for purposes of periodic monitoring.

[Applicant agreement with EPA on January 22, 1999]

### Section III. Emissions Unit(s) and Conditions.

#### Subsection D. This section addresses the following emissions unit(s).

##### E.U. ID

<u>No.</u>	<u>Brief Description</u>
-005	Solid Fuel Handling System

The solid fuel handling system consists of a bottom unloading station where water/surfactant spray is applied to the incoming fuel as needed for dust control. The system also includes enclosed or covered conveying systems, rubber skirted drop points from bins, two fuel silos with an associated bag house, a fuel surge bin with an associated bag house, and two rod mill crushers for slurry production.

Solid fuel is received by truck and is unloaded to the fuel unloading bin. Fugitive emissions are controlled by water spray with surfactant applied at the unloading bin as needed. Fuel is conveyed via enclosed or covered conveyor from the unloading bin to the fuel storage silos. The transfer points from the bin to the belts are rubber skirted. Fugitive emissions from the fuel silos are controlled by an associated bag house. Fuel is then reclaimed from the silos via enclosed or covered conveyors to the surge bin inside the slurry preparation building. Fugitive emissions from the surge bin are controlled by an associated bag house. Fuel and water are then mixed in the rod mill crushers to produce a coal slurry.

{Permitting note(s): The emissions unit is regulated under 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants; and, Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD)}

#### The following Specific Conditions apply to the emissions unit(s) listed above:

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

**D.1. Methods of Operation.** Particulate matter emissions from the handling of solid fuels shall be controlled by enclosing or covering all solid fuel storage, conveyors and conveyor transfer points. Water sprays or chemical wetting agents and stabilizers shall be applied to uncovered storage piles, roads, handling equipment, etc. during dry periods, as necessary, to all facilities to maintain the opacity specified in Specific Condition **D.3.**

[Rule 62-213.410, F.A.C.; and, 1050233-015-AC]

**D.2. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.

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

## **Emission Limitations and Standards**

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

{Permitting Note: Unless otherwise specified, the averaging time for Specific Condition **D.3.** is based on the specified averaging time of the applicable test method.}

**D.3. Visible Emissions.** Visible emissions shall be less than or equal to five percent opacity. [PSD-FL-194(A)]

## **Test Methods and Procedures**

{Permitting Note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**D.4. Visible Emissions.** The test method for visible emissions shall be EPA Method 9, incorporated by reference in Chapter 62-297, F.A.C. The test shall be conducted annually. [PSD-FL-194 and 40 CFR 60.254(b)(2)]

**D.5. 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.**

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 Rule 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;

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;

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.

(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 in a Department rule or in a permit issued pursuant to those rules is being violated, it may 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.

© 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 of 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 Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; and, SIP approved]

### **Recordkeeping and Reporting Requirements**

**D.6.** All recorded data shall be maintained on file by the Source for a period of five years. [Rule 62-213.440, F.A.C.]

#### **D.7. 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.

© The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.

12. The type, manufacturer and configuration of the sampling equipment used.
  13. Data related to the required calibration of the test equipment.
  14. Data on the identification, processing and weights of all filters used.
  15. Data on the types and amounts of any chemical solutions used.
  16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  18. All measured and calculated data required to be determined by each applicable test procedure for each run.
  19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
  20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
  21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who 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.
- [Rules 62-213.440 and 62-297.310(8), F.A.C.]

### Section III. Emissions Unit(s) and Conditions.

#### Subsection E. This section addresses the following emissions unit(s).

##### E.U. ID

<u>No.</u>	<u>Brief Description</u>
-006	Solid Fuel Gasification System

The solid fuel gasification system converts solid fuel {coal or blends of up to 60 percent petroleum coke (pet coke) and 40 percent bituminous coal} into syngas for the purpose of electric generation.

{Permitting note(s): The emissions unit is regulated under Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD)}

#### The following Specific Conditions apply to the emissions unit(s) listed above:

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

**E.1. Permitted Capacity.** Solid fuels input to the solid fuel gasification plant shall consist of coal or coal/petroleum coke blends containing a maximum of 60.0 percent petroleum coke by weight. The maximum input of solid fuels to the solid fuel gasification plant shall not exceed 2,325 tons per day, on a dry basis. The maximum weight of the petroleum coke blended shall not exceed 1,395 tons per day, on a dry basis. The maximum sulfur content of the blended fuel shall not exceed 3.5 percent by weight.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, PSD-FL-194(E)]

**E.2. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.

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

##### Monitoring of Operations

**E.3.** Compliance with the solid fuel sulfur content standard of 3.5 percent, by weight, will be determined by sampling each unique fuel blend prior to gasification by the owner/operator or the vendor as follows: using appropriate ASTM methods such as, ASTM D2013-72, ASTM D3177-75, and ASTM D4239-85, or latest ASTM edition methods. See Specific Condition **E.1.**

[40 CFR 60.335(d); and, PSD-FL-194(E)]

**E.4.** Record daily the actual solid fuel input to the emissions unit, in tons per day.

[Rule 62-213.440(1)(b), F.A.C.]

## **Recordkeeping and Reporting Requirements**

**E.5. Recordkeeping.** Written or electronic records verifying that the coal/petroleum coke blends input to the solid fuel gasification system have not exceeded the 60.0 percent (1,395 tons per day) maximum petroleum coke by weight limit and the blended fuel sulfur content of 3.5 percent by weight limit specified by Specific Condition **E.1.**, shall be maintained and submitted to the Department's Southwest District Office with each annual report. These records shall be generated each time a new shipment of coal/petroleum coke fuel is received or solid fuel is gasified.

[PSD-FL-194(E)]

**E.6.** All recorded data shall be maintained on file by the Source for a period of five years.

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

### Section III. Emissions Unit(s) and Conditions.

#### Subsection F. This section addresses the following emissions unit(s).

##### E.U. ID

<u>No.</u>	<u>Brief Description</u>
-009	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-2
-010	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-3

The emissions units are two dual-fuel, nominal 165 megawatts General Electric Model PG7241 FA simple cycle combustion turbines. The units are equipped with dry low-NO<sub>x</sub> combustors and wet injection capability. Pipeline quality natural gas is the primary fuel and No. 2 fuel oil serves as the backup fuel.

{Permitting note(s): The emissions units are regulated under Acid Rain, Phase II; NSPS – 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated February 24, 1994. The simple cycle combustion turbine CTG-2 began operation in June, 2000 and simple cycle combustion turbine CTG-3 began operation in April, 2002.}

#### The following conditions apply to the emissions unit(s) listed above:

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

**F.1. Permitted Capacity.** The maximum heat input rates, based on the lower heating value (LHV) of each fuel to each unit at ambient conditions of 59°F temperature, 60% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,600 million Btu per hour (MMBtu/hr) when firing natural gas, nor 1,800 MMBtu/hr when firing No. 2 or superior grade of distillate fuel oil. These maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions provided to the Department of Environmental Protection (DEP), shall be utilized for these corrections.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, PSD-FL-263]

**F.2. Methods of Operation. Fuels.** Only pipeline natural gas or maximum 0.05 percent sulfur fuel oil No. 2 or superior grade of distillate fuel oil shall be fired in this unit. {Note: The limitation of this Specific Condition is more stringent than the NSPS sulfur dioxide limitation and thus assures compliance with 40 CFR 60.333 and 60.334}  
[Rules 62-210.200(PTE), 62-212.400, and 62-212.410, F.A.C.; and, PSD-FL-263]

**F.3. Hours of Operation.** The maximum hours of operation for each unit are 4,380 hours per year on natural gas and 750 hours per year on fuel oil.  
[Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-263]

## **Emission Limitations and Standards**

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

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **F.4.** – **F.8.** are based on the specified averaging time of the applicable test method.}

### **F.4. Nitrogen Oxides:**

- **While firing Natural Gas:** The emission rate of NO<sub>x</sub> in the exhaust gas shall not exceed 10.5 ppm @15% O<sub>2</sub> on a 24-hr block average as measured by the continuous emission monitoring system (CEMS). In addition, NO<sub>x</sub> emissions calculated as NO<sub>2</sub> shall not exceed 59 pounds per hour (at ISO conditions) and 9 ppmvd @15% O<sub>2</sub> to be demonstrated by the initial “new and clean” GE performance stack test.  
Notwithstanding the applicable NO<sub>x</sub> limit during normal operation, reasonable measures shall be implemented to maintain the concentration of NO<sub>x</sub> in the exhaust gas at 9 ppmvd at 15% O<sub>2</sub> or lower. Any tuning of the combustors for Dry Low NO<sub>x</sub> operation while firing gas shall result in initial subsequent NO<sub>x</sub> concentrations of 9 ppmvd @15% O<sub>2</sub> or lower.
- **While firing Fuel oil:** The concentration of NO<sub>x</sub> in the exhaust gas shall not exceed 42 ppmvd at 15% O<sub>2</sub> on the basis of a 3-hr average as measured by the continuous emission monitoring system (CEMS). In addition, NO<sub>x</sub> emissions calculated as NO<sub>2</sub> shall not exceed 319 lb/hr (at ISO conditions) and 42 ppmvd @15% O<sub>2</sub> to be demonstrated by stack test. The permittee shall develop a NO<sub>x</sub> reduction plan when the hours of oil firing reach the allowable limit of 750 hours per year. This plan shall include a testing protocol designed to establish the maximum water injection rate and the lowest NO<sub>x</sub> emissions possible without affecting the actual performance of the gas turbine. The testing protocol shall set a range of water injection rates and attempt to quantify the corresponding NO<sub>x</sub> emissions for each rate and noting any problems with performance. Based on the test results, the plan shall recommend a new NO<sub>x</sub> emissions limiting standard and shall be submitted to the Department’s Bureau of Air Regulation and Compliance Authority for review. If the Department determines that a lower NO<sub>x</sub> emissions standard is warranted for oil firing, this permit shall be revised.

[PSD-FL-263]

**F.5. Sulfur Dioxide.** SO<sub>2</sub> emissions shall be limited by firing pipeline natural gas (sulfur content less than 2 grains per 100 standard cubic foot) or by firing No. 2 or superior grade distillate fuel oil with a maximum 0.05 percent sulfur for 750 hours per year per unit. Emissions of SO<sub>2</sub> (at ISO conditions) shall not exceed 9.2 lb/hr (natural gas) and 98.1 lb/hr (fuel oil) as measured by applicable compliance methods.

[PSD-FL-263]

**F.6. Visible Emissions.** VE emissions shall not exceed 10 percent opacity.

[PSD-FL-263]

**F.7. Volatile Organic Compounds.** The concentration of VOC in the stack exhaust gas with the combustion turbine operating on natural gas shall exceed neither 1.4 ppmvw nor 2.8 lb/hr (ISO

conditions) and neither 3.5 ppmvw nor 7 lb/hr (ISO conditions) while operating on oil to be demonstrated by initial stack test using EPA Method 18, 25 or 25A.  
[PSD-FL-263]

**F.8. Carbon Monoxide.** During the first 12 months after initial start up, the concentration of CO in the stack exhaust gas shall exceed neither 15 ppmvd nor 48 lb/hr (at ISO conditions) while firing gas and neither 33 ppmvd nor 106 lb/hr (at ISO conditions) while firing oil based on stack test. Thereafter, these limits will be revised and lowered to 12 ppmvd and 38 lb/hr (at ISO conditions) while firing gas and 20 ppmvd and 65 lb/hr (at ISO conditions). The permittee shall demonstrate compliance with these limits by stack test using EPA Method 10.  
[PSD-FL-263]

### **Excess Emissions**

**F.9.** Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period for other reasons unless specifically authorized by DEP for longer duration. Operation below 50% output shall be limited to 2 hours per unit cycle (breaker closed to breaker open).  
[Rule 62-210.700(1), F.A.C.; and, PSD-FL-263]

**F.10.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. These emissions shall be included in the 24-hr average for NO<sub>x</sub>.  
[Rule 62-210.700(4), F.A.C.; and, PSD-FL-263]

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS, NESHAP, or Acid Rain program provision.}

### **Monitoring of Operations**

**F.11.** 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 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.  
[40 CFR 60.11(d)]

**F.12.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG and using water injection to control NO<sub>x</sub> emissions shall operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within  $\pm 5.0$  percent and shall be approved by the Administrator. See Specific Condition **F.31**. The use of the nitrogen oxides continuous emissions monitor satisfies this requirement.  
[40 CFR 60.334(a); and, 1050233-015-AC]

**F.13.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The use of the nitrogen oxides continuous emissions monitor satisfies this requirement for nitrogen monitoring. The frequency of determination of these values shall be as follows:

(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

(2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).

See Specific Condition **F.31.**, for only nitrogen.  
[40 CFR 60.334(b)(1) & (2); and, 1050233-015-AC]

**F.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.]

**Test Methods and Procedures**

{Permitting Note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**F.15.** To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.

[40 CFR 60.335(a)]

**F.16.** When determining compliance with 40 CFR 60.332, Subpart GG – Standards of Performance for Stationary Gas Turbines, the monitoring device of 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted NO<sub>x</sub> standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. See Specific Condition **F.31.** The use of the nitrogen oxides continuous emissions monitor satisfies this requirement.



[40 CFR 60.335©(2); and, 1050233-015-AC]

**F.17.** The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 as follows:

c. U.S. EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO<sub>x</sub> emissions shall be determined at each of the load conditions specified in 40 CFR 60.335©(2).

[40 CFR 60.335©(3)]

**F.18. Continuous compliance with the NO<sub>x</sub> emission limits:** Continuous compliance with the NO<sub>x</sub> emission limits shall be demonstrated with the CEM system based on the applicable averaging time of 24-hr block average (DLN). Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day. A valid hourly emission rate shall be calculated for each hour in which at least two NO<sub>x</sub> concentrations are obtained at least 15 minutes apart. Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction unless prohibited by Rule 62-210.700 F.A.C. These excess emissions periods shall be reported as required in Specific Conditions **F.10.** and **F.38.** [Rules 62-4.070 and 62-210.700, F.A.C., 40 CFR 75; and, BACT]

All continuous monitoring systems (CEMS) shall be in continuous operation except for breakdowns, repairs, calibration checks, and zero and span adjustments. These CEMS shall meet minimum frequency of operation requirements: one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data average.

[40 CFR 60.13; and, PSD-FL-263]

**F.19.** Initial (I) performance tests (for both fuels) shall be performed on each unit while firing natural gas as well as while firing oil. Initial tests shall also be conducted after any modifications (and shake down period not to exceed 100 days after re-starting the CT) of air pollution control equipment such as change or tuning of combustors. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 – September 30) pursuant to Rule 62-297.310(7), F.A.C., on each unit as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing:

EPA Reference Method 9, “Visual Determination of the Opacity of Emissions from Stationary Sources” (I, A).

EPA Reference Method 10, “Determination of Carbon Monoxide Emissions from Stationary Sources” (I, A).

EPA Reference Method 20, “Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines.” Initial test only for compliance with 40 CFR 60 Subpart GG and (I, A) short-term NO<sub>x</sub> BACT limits (EPA reference Method 7E, “Determination of Nitrogen Oxides Emissions from Stationary Sources” or RATA test data may be used to demonstrate compliance for annual test requirements).

EPA Reference Method 18, 25 and/or 25A, “Determination of Volatile Organic Concentrations.” Initial test only.

[PSD-FL-263]

**F.20. Compliance with CO emission limit:** An initial test for CO shall be conducted concurrently with the initial NO<sub>x</sub> test, as required. The initial NO<sub>x</sub> and CO test results shall be the average of three valid one-hour runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual RATA testing for the NO<sub>x</sub> CEMS required pursuant to 40 CFR 75.

[PSD-FL-263]

**F.21. Compliance with the SO<sub>2</sub> emission limits:** Notwithstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas, is the method for determining compliance for SO<sub>2</sub>. For the purposes of demonstrating compliance with the 40 CFR 60.333 SO<sub>2</sub> standard, ASTM methods D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule or natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. However, the applicant is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used when determination of fuel sulfur content is made. Analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1998 version).

[40 CFR 60.335(d) and PSD-FL-263]

**F.22. Compliance with the VOC emission limit:** An initial test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit and periodic tuning data will be employed as surrogate and no annual testing is required.

[PSD-FL-263]

**F.23. 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 the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

**F.24. Calculation of Emission Rate.** 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.]

**F.25. 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:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

**(b) Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

**© 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.

**(e) Allowed Modification to EPA Method 5.** When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

**F.26.** The permittee shall comply with the requirements contained in APPENDIX SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**F.27. 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.**

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 Rule 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.
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.

(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 in a Department rule or in a permit issued pursuant to those rules is being violated, it may 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.

© 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 of 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 Rule 62-297.310(7)(b), F.A.C., shall apply.  
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

**F.28. Operating Rate During Testing**. Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ambient temperature) and 110 percent of the value reached during the test 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 purposes of additional compliance testing to regain the permitted capacity. Procedures for these

tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C.  
[PSD-FL-263]

### **Monitoring Requirements**

**F.29. Continuous Monitoring System:** The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from these units. Upon request from EPA or DEP, the CEMS emission rates for NO<sub>x</sub> on these Units shall be corrected to ISO conditions to demonstrate compliance with the NO<sub>x</sub> standard established in 40 CFR 60.332.  
[PSD-FL-263]

**F.30. CEMS for reporting excess emissions: Excess Emissions and Monitoring System** Performance Reports shall be submitted as specified in 40 CFR 60.7©. CEM monitor downtime shall be calculated and reported according to the requirements of 40 CFR 60.7©(3) and 40 CFR 60.7(d)(2). See Specific Conditions **F.36.** and **F.37.** Periods when NO<sub>x</sub> emissions (ppmvd @ 15% oxygen) are above the BACT standards, listed in Specific Condition **F.4.**, shall be reported to the DEP Southwest District within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternatively by facsimile within one working day).  
[PSD-FL-263]

**F.31. CEMS in lieu of Water to Fuel Ratio:** The NO<sub>x</sub> CEMS shall be used in lieu of the water/fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334©(1), Subpart GG (1998version). The calibration of the water/fuel monitoring device required in 40 CFR 60.335 ©(2) (1998 version) will be replaced by the 40 CFR 75 certification tests of the NO<sub>x</sub> CEMS.  
[PSD-FL-263]

**F.32. Continuous Monitoring Certification and Quality Assurance Requirements:** The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the DEP Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.  
[PSD-FL-263]

**F.33. Natural Gas Monitoring Schedule:** A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following requirements are met:

- The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30. The permittee shall submit a monitoring plan, certified by signature of the Designated

Representative, that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).

- Each unit shall be monitored for SO<sub>2</sub> emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO<sub>2</sub> emissions must be accounted for as required pursuant to 40 CFR 75.11(d).

[PSD-FL-263]

**F.34. Fuel Oil Monitoring Schedule:** The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 fuel oil received at this facility an analysis which reports the sulfur content and nitrogen content of the fuel shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d). The use of the nitrogen oxides continuous emissions monitor satisfies the requirement for nitrogen monitoring. See Specific Condition **F.31.**, for only nitrogen.

[PSD-FL-263; and, 1050233-015-AC]

### **Record Keeping and Reporting Requirements**

**F.35.** For the purpose of reports required under 40 CFR 60.7©, periods of excess emissions that shall be reported are defined as follows:

a. Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the permitted nitrogen oxide standard by the initial performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the initial performance test. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

The use of the nitrogen oxides continuous emissions monitor satisfies this requirement. See Specific Condition **F.31.**

[Rule 62-296.800, F.A.C.; 40 CFR 60.334©(1); and, 1050233-015-AC]

**F.36.** The 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 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar half (or quarter, as appropriate). 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.
- [40 CFR 60.7©(1), (2), (3), & (4)]

**F.37.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) 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© 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© shall both be submitted.
- [40 CFR 60.7(d)(1) & (2)]

**F.38. Excess Emissions Report:** If excess emissions occur due to malfunction (for greater than 2 hours in a 24-hr period), the owner or operator shall notify DEP's Southwest District 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. Following the NSPS format, 40 CFR 60.7 Subpart A, periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards. See Specific Condition F.4. [Rule 62-210.700(6), F.A.C. and PSD-FL-263]

**F.39. 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.
- © The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
  2. The facility at which the emissions unit is located.
  3. The owner or operator of the emissions unit.

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

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

### **Miscellaneous Requirements.**

**F.40. Definitions.** For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term “Administrator” when used in 40 CFR 60, shall mean the Secretary or the Secretary’s designee.

[40 CFR 60.2; and, Rule 62-204.800(7)(a), F.A.C.]

**F.41. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 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]

**F.42. Plant Operation – Problems:** 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 owner or operator shall notify the DEP Southwest District as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the 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 and the regulations.

[PSD-FL-263]

**F.43. ARMS Emissions Units 009 and 010.** Direct Power Generation, consisting of a nominal 165 megawatt simple cycle combustion turbine-electrical generator, shall comply with all applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s).

[PSD-FL-263]

**F.44.** The permittee shall provide manufacturer's emissions performance versus load diagrams for the DLN and wet injection systems prior to their installation. DLN systems shall each be tuned upon initial operation to optimize emissions reductions consistent with normal operation and maintenance practices and shall be maintained to minimize NOx emissions and CO emissions, consistent with normal operation and maintenance practices. Operation of the DLN systems in the diffusion-firing mode shall be minimized when firing natural gas.

[Rules 62-4.070, and 62-210.650, F.A.C.; and, PSD-FL-263]

### Section III. Emissions Unit(s) and Conditions.

#### Subsection G. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-011	Unit 4 – 165 MW General Electric PG7241 FA gas turbine-electrical generator
-012	Unit 5 – 165 MW General Electric PG7241 FA gas turbine-electrical generator

These emissions units are two General Electric PG7241(FA) simple cycle gas turbine generators with a nominal output of 165 megawatts (MW) each. Each unit may operate up to 4380 hours per year. The units are fired exclusively with natural gas, which will minimize sulfur dioxide (SO<sub>2</sub>) emissions. The units are designed and constructed with dry low-NO<sub>x</sub> (DLN) burner technology for the control of nitrogen oxides (NO<sub>x</sub>) emissions. The advanced burner design will reduce incomplete combustion and minimize carbon monoxide (CO), particulate matter (PM/PM<sub>10</sub>), and volatile organic compounds (VOC) emissions.

{Permitting note(s):

*Title IV:* Units 4 and 5 are subject to the acid rain provisions of the Clean Air Act.

*PSD (Prevention of Significant Deterioration):* Units 4 and 5 are regulated under PSD pursuant to Rule 62-212, F.A.C.

*New Source Performance Standards (NSPS):* Units 4 and 5 are subject to 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines). They are not be subject to NSPS Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for which Construction is Commenced after February 18, 2005) because the purchase contract with General Electric was signed on July 21, 2000, which is prior to the NSPS effective date.

*NESHAP:* Units 4 and 5 are not subject to 40 CFR 63, Subpart YYYY (National Emissions Standard for Hazardous Air Pollutants for Stationary Combustion Gas Turbines) because the facility is not a major source of HAP.}

*CAIR:* Units 4 and 5 are subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

*CAM:* Units 4 and 5 are not subject to compliance assurance monitoring (CAM), because continuous emissions monitors (CEMS) are used to demonstrate compliance with the applicable standards for NO<sub>x</sub>. Water injection for NO<sub>x</sub> control is the only add on pollution control device used at the facility.

#### **Applicable Standards and Regulations**

**G.1. BACT Determinations.** Units 4 and 5 are subject to determinations of the Best Available Control Technology (BACT) for NO<sub>x</sub>, PM/PM<sub>10</sub>, and SO<sub>2</sub>. [Rule 62-212.400(BACT), F.A.C. and 1050233-018-AC, Specific Condition 1.]

**G.2. NSPS Requirements.** The gas turbines shall comply with the applicable New Source Performance Standards (NSPS) in 40 CFR 60, including: Subpart A (General Provisions) and Subpart GG (Standards of Performance for Stationary Gas Turbines). See Appendix GG of this permit. The BACT emissions standards are as stringent as or more stringent than the limits

imposed by the applicable NSPS provisions. Some separate reporting and monitoring may be required by the individual subparts. These provisions include a requirement to correct test data to International Organization for Standardization (ISO) conditions; however, such correction is not used for compliance determinations with the BACT standards. [Rule 62-204.800(8)(b), F.A.C.; 40 CFR 60, Subparts A and GG; and 1050233-018-AC, Specific Condition 2.]

### **Equipment Description**

**G.3. Gas Turbines.** The permittee is authorized to tune, operate, and maintain two General Electric Model PG7241FA gas turbine-electrical generator sets with a nominal generating capacity of 165 MW each. Each gas turbine will be equipped with a DLN combustion system and an inlet air filtration system. The unit shall include a Speedtronic™ Mark V automated gas turbine control system (or equivalent). [Application No. 1050233-018-AC; Design; and 1050233-018-AC, Specific Condition 3.]

### **Control Technology**

**G.4. DLN Combustion.** The permittee shall operate and maintain the General Electric DLN 2.6 combustion system (or better) to control NO<sub>x</sub> emissions from the gas turbines when firing natural gas. The system shall be maintained and tuned in accordance with the manufacturer's recommendations. [Application No. 1050233-018-AC; Design; Rule 62-212.400(BACT), F.A.C.; and 1050233-018-AC, Specific Condition 4.]

### **Performance Requirements**

**G.5. Hours of Operation.** Each gas turbine shall operate no more than 4380 hours during any consecutive 12 months. Restrictions on individual methods of operation are specified in separate conditions. [Application No. 1050233-018-AC; Rules 62-210.200(PTE) and 62-212.400(12), F.A.C.; and 1050233-018-AC, Specific Condition 5.]

**G.6. Permitted Capacity.** The maximum heat input rate for each gas turbine is 1834 million British thermal units (MMBtu) per hour when firing natural gas based on a compressor inlet air temperature of 59° F, the higher heating value (HHV) of natural gas, 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. [Rules 62-4.070(3), 62-212.400(BACT), and 62-210.200(PTE), F.A.C.; and 1050233-018-AC, Specific Condition 6.]

**G.7. Authorized Fuels.** Each gas turbine shall fire only natural gas containing no more than 2.0 grains of sulfur (S) per 100 standard cubic feet of natural gas. [Rules 62-210.200(PTE) and 62-212.400 (BACT), F.A.C.; and 1050233-018-AC, Specific Condition 7.]

**G.8. Simple Cycle, Intermittent Operation.** Each turbine shall operate only in simple cycle mode not to exceed the permitted hours of operation allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD applicability and BACT determinations and resulted in the emission standards specified in this permit. For any request to convert this unit to combined cycle operation by installing/connecting to heat recovery steam generators, including changes to the fuel quality or quantity related to combined cycle conversion which may cause an increase in short or long-term emissions, the permittee may be required to submit a full PSD permit application complete with a new proposal of the best available control

technology as if the unit had never been built. [Rules 62-212.400(12) and 62-212.400(BACT), F.A.C.; and 1050233-018-AC, Specific Condition 8.]

**Emissions and Testing Requirements**

**G.9. Emission Standards.** Emissions from each gas turbine shall not exceed the following emissions standards.

Pollutant	Emission Standard <sup>e</sup>	Averaging Time	Compliance Method	Basis
CO <sup>a</sup>	99.0 tons (Emissions Cap)	12-month rolling total Both Units Combined	CEMS	Avoid PSD
NO <sub>x</sub> <sup>b</sup>	9.0 ppmvd @ 15% O <sub>2</sub>	24-hour block, CEMS	CEMS	BACT
PM/PM <sub>10</sub> <sup>c</sup>	10 % Opacity	6-minute block	EPA Method 9 Test	BACT
	2 grains S/100 SCF of gas	N/A	Record Keeping	
SO <sub>2</sub> <sup>d</sup>	2 grains S/100 SCF of gas	N/A	Record Keeping	BACT

- a. Continuous compliance shall be demonstrated with the CO emissions cap by data collected from the required continuous emissions monitoring systems (CEMS) for both units combined.
- b. Continuous compliance shall be demonstrated with the 24-hour block NO<sub>x</sub> emissions limit by data collected from the required CEMS.
- c. The fuel sulfur specifications combined with the efficient combustion design and operation of the gas turbine represents BACT for particulate matter (PM/PM<sub>10</sub>) emissions. No stack tests are required. Compliance with the CO and visible emissions standards shall serve as indicators of good combustion. *{Permitting Note: Maximum expected PM/PM<sub>10</sub> emissions from each gas turbine are approximately 18 lb/hour.}*
- d. The fuel sulfur specifications effectively limit the potential emissions of sulfur dioxide (SO<sub>2</sub>) from each gas turbine and represent BACT for SO<sub>2</sub> emissions. No stack tests are required. *{Permitting Note: Maximum expected SO<sub>2</sub> emissions from each gas turbine are approximately 9.5 lb/hour.}*
- e. The mass emission rate standards are based on a turbine inlet condition of 59° F and the higher heating value of natural gas. Mass emission rates may be adjusted from actual test conditions in accordance with the performance curves and/or equations on file with the Department.

*{Permitting Note: In combination with the annual restriction on hours of operation, the above emissions standards effectively limit annual potential emissions from both gas turbines to: 99 tons/year of CO, 267 tons/year of NO<sub>x</sub>, 79 tons/year of PM/PM<sub>10</sub>, 42 tons/year of SO<sub>2</sub>, 5 tons/year of sulfuric acid mist (SAM), and 12 tons/year of VOC.}*

[Rule 62-212.400 (BACT), F.A.C.; Rule 62-4.070(3), F.A.C.; and 1050233-018-AC, Specific Condition 9.]

**G.10.** [Reserved.]

**G.11. Test Methods.** Any required stack tests shall be performed in accordance with the following methods.

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The method is 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 Department. Tests shall be conducted in accordance with the appropriate test method, and the provisions in NSPS Subparts A and GG in 40 CFR 60. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Subparts A and GG, and Appendix A; and 1050233-018-AC, Specific Condition 11.]

**G.12. Testing Requirements.** Performance tests shall be conducted between 90% and 100% of permitted capacity in accordance with the requirements of Rule 62-297.310(2), F.A.C. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8; and 1050233-018-AC, Specific Condition 12.]

**G.13.** [Reserved.]

**G.14. Annual Compliance Testing.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), annual compliance tests for visible emissions shall be conducted. For each visible emissions test, emissions of CO and NO<sub>x</sub> recorded by the CEMS shall also be reported. [Rules 62-297.310(7)(a) and (b), F.A.C.; and 1050233-018-AC, Specific Condition 14.]

**G.15. Continuous Compliance.** Continuous compliance with the CO and NO<sub>x</sub> emissions standards shall be demonstrated with data collected from the required continuous emissions monitoring systems (CEMS). [Rules 62-297.310(7)(a) and (b), F.A.C.; and 1050233-018-AC, Specific Condition 15.]

**G.16. 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. The Department may, require the permittee to conduct additional tests after major replacement or major repair of any air pollution control equipment, such as the DLN combustors, etc. [Rule 62-297.310(7)(b), F.A.C.; and 1050233-018-AC, Specific Condition 16.]

**Excess Emissions**

*{Permitting Note: The following conditions apply only to the SIP-based emissions standards specified in Condition No. G.9. of this section. Rule 62-210.700, F.A.C. (Excess Emissions) cannot vary or supersede any federal NSPS, NESHAP, or Acid Rain provision.}*

**G.17. Operating Procedures.** The Best Available Control Technology (BACT) determinations established by air construction permit 1050233-018-AC 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 turbines, 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.; and 1050233-018-AC, Specific Condition 17.]

**G.18. Definitions.** Rules 62-210.200(159), (230) and (245), F.A.C., define the following terms.

- a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
- b. *Shutdown* is the cessation of the operation of an emissions unit for any purpose.
- c. *Malfunction* is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

[1050233-018-AC, Specific Condition 18.]

**G.19. Excess Emissions Prohibited.** Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C. and 1050233-018-AC, Specific Condition 19.]

**G.20. 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. and 1050233-018-AC, Specific Condition 20.]

**G.21. Allowable NO<sub>x</sub> Data Exclusions.** Provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized, NO<sub>x</sub> continuous monitoring data collected during periods of startup, shutdown, malfunction and DLN tuning may be excluded from the 24-hr block compliance demonstrations only in accordance with the following requirements. All periods of data excluded shall be consecutive for each such episode and only data obtained during the described episodes (startup, shutdown, malfunction, and DLN tuning) may be excluded. As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions replace the provisions in Rule 62-210.700(1), F.A.C.

- a. *Startup:* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 30 minutes of CEMS data shall be excluded for each gas turbine startup. For startups of less than 30 minutes in duration, only those minutes attributable to startup shall be excluded.
- b. *Shutdown:* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 20 minutes of CEMS data shall be excluded for each gas turbine shutdown. For shutdowns less than 20 minutes in duration, only those minutes attributable to shutdown shall be excluded.
- c. *Malfunction:* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than 120 minutes of CEMS data shall be excluded in a 24-hour period for each gas turbine due to malfunctions. Within one (1) working day of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CEMS data.

- d. *DLN Tuning:* CEMS data collected during initial or other DLN tuning sessions shall be excluded from the compliance demonstrations provided the tuning session is performed in accordance with the manufacturer's specifications. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice of at least one (1) day 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.; and 1050233-018-AC, Specific Condition 21.]

The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown, malfunction, and DLN tuning) shall be used to report annual emissions for the Annual Operating Report and demonstration of compliance with the CO emissions cap. [Rules 62-4.070(3), 62-210.200, 62-212.400(BACT) and 62-210.700, F.A.C.; and 1050233-018-AC, Specific Condition 21.]

#### **Continuous Emissions Monitoring System (CEMS) Requirements**

**G.22. CEM Systems.** The permittee shall calibrate, maintain, and operate CEMS to measure and record the emissions of CO and NO<sub>x</sub> from each gas turbine in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards of this section.

- a. *CO Monitor:* Each CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The annual and required RATA tests 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<sub>x</sub> Monitor:* Each NO<sub>x</sub> monitor shall be certified pursuant to the specifications of 40 CFR 75. Quality assurance procedures shall conform to the requirements of 40 CFR 75. The annual and required RATA tests required for the NO<sub>x</sub> monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60.
- c. *Diluent Monitor:* The oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) content of the flue gas shall be monitored at the location where CO and NO<sub>x</sub> are monitored to correct the measured emissions rates to 15% oxygen. If a CO<sub>2</sub> 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.

[Rules 62-4.070(3), 62-210.800, 62-212.400(BACT) and 62-297.520, F.A.C.; and 1050233-018-AC, Specific Condition 22.]

**G.23. CEMS Data Requirements.** The CEMS shall be calibrated, maintained, and operated in the gas turbine stacks to measure and record the emissions of CO, and NO<sub>x</sub> in a manner sufficient to demonstrate compliance with the CEMS-based emission limits of this section. The CEMS shall express the results in units of ppmvd corrected to 15% oxygen. Upon request by the Department, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.

- a. *Valid Hourly Averages for Compliance:* Each CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one

measurement per minute. All valid measurements collected during an hour (except for the allowable NO<sub>x</sub> data exclusions), shall be used to calculate a 1-hour block average that begins at the top of each hour. Each 1-hour block average 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, a 1-hour average 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, there is insufficient data and the 1-hour block average is not valid. Also, if an allowable exclusion episode should occur over two separate hourly averages, only those minutes attributed to the specific episode shall be excluded from each hour. *{Permitting Note: For example, a 20-minute startup begins at 2:50 p.m. and ends at 3:10-p.m. This means that 10 minutes of startup data would be excluded from the first hourly average and 10 minutes would be excluded from the second hourly average. The first hourly average (2:00 – 3:00 p.m.) is not a valid hourly average because there is insufficient data. The second hourly average (3:00 – 4:00 p.m.) is a valid hourly average consisting of 50 minutes of monitoring data.}*

- b. *24-hour Block Averages:* A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive valid hourly average concentration values. If a unit operates less than 24 hours during the block, or there are less than 24 valid hourly averages available, the 24-hour block average shall be the average of all available valid hourly average concentration values for the 24-hour block. *{Permitting Note: 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 and periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance reports. For example, the “24-hr block average” may consist of only 6 valid operating hours for the day.}*
- c. *12-Month Rolling Total:* By the end of each month, each CEMS shall determine a 12-month rolling total of CO emissions from each gas turbine and the combined total. The 12-month rolling total shall be based on all valid CO CEMS data collected, including startups, shutdowns, and malfunctions.
- d. *Data Exclusion:* Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, malfunctions, and DLN tuning. Limited amounts of NO<sub>x</sub> CEMS emissions data recorded during some of these episodes may be excluded from the corresponding compliance demonstration subject to the provisions of Condition No. G.21 in this section. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.
- e. *Monitor Availability.* Monitor availability for each CEMS used to demonstrate compliance shall be 95% or greater in any calendar quarter. Monitor availability shall be calculated consistent with 40 CFR §60.334 and reported in the State Implementation Plan (SIP) and NSPS excess emissions reports required in Condition G.29. In the event that 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 Compliance Authority.

[Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; and 1050233-018-AC, Specific Condition 23.]

#### **REPORTING AND RECORD KEEPING REQUIREMENTS**

**G.24. Monitoring of Capacity.** The permittee shall monitor and record the operating rate of the gas turbine on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown, malfunction, and DLN tuning). This shall be achieved through monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75 Appendix D, and recording the data using a monitoring component of the CEMS system required above. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; and 1050233-018-AC, Specific Condition 24.]

**G.25. 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: hours of operation for the month and for the rolling 12-month total. 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.; and 1050233-018-AC, Specific Condition 25.]

**G.26. Fuel Sulfur Records.** 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. These 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), 62-212.400(BACT), F.A.C.; and 1050233-018-AC, Specific Condition 26.]

**G.27. Stack Test Reports.** The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority 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 Compliance Authority to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report shall provide the applicable information specified in Rule 62-297.310(8), F.A.C. and summarized in Appendix C. [Rule 62-297.310(8), F.A.C. ; and 1050233-018-AC, Specific Condition 27.]

**G.28. CEMS RATA Reports.** At least 15 days prior to conducting any Relative Accuracy Test Assessments (RATA) on a CEMS, the permittee shall notify the Compliance Authority of the schedule (letter, email, fax, or phone call). A summary of the RATA reports shall be provided upon written request of the Compliance Authority and in the SIP Excess Emissions Report as specified in Condition G.29. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; and 1050233-018-AC, Specific Condition 28.]

**G.29. Excess Emissions Reporting.**

- a. *Malfunction Notification:* If NO<sub>x</sub> data will be excluded due to a malfunction, the permittee shall notify the Compliance Authority within one 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 Compliance Authority may request a written summary report of the incident.
- b. *SIP Excess Emissions Report:* Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority of the following for each gas turbine: a summary of the 24-hour NO<sub>x</sub> compliance periods for the quarter; a summary of NO<sub>x</sub> data excluded due to malfunctions for the quarter; a summary of the 12-month rolling CO emissions totals for the quarter; a summary of any RATA tests performed during the quarter; and a summary of the CEMS systems monitor availability for the quarter.
  - (1) If four consecutive quarterly reports demonstrate compliance with the CEMS-based emissions standards, the reporting frequency may be reduced to semiannual reporting. As part of the fourth consecutive satisfactory quarterly report, the permittee shall provide written notification of its intent to reduce the reporting frequency to a semiannual basis. The notification shall include a statement that the units were in full compliance during the four consecutive quarters and that reporting will be reduced to a semiannual basis. Semiannual reports shall include above information required for each quarter in the semiannual period. The permittee shall continue to comply with all other record keeping and monitoring provisions.
  - (2) If reports are being submitted on a semiannual basis and a unit is not in compliance with the CEMS-based emissions standards, the permittee shall immediately (within one day of detection) notify the Compliance Authority of the compliance status and reestablish quarterly reporting beginning with the current quarter. If compliance is reestablished for four consecutive quarters, semiannual reporting may resume as specified above.
- c. *NSPS Excess Emissions Reports:* Within thirty (30) days following each calendar semiannual period, the permittee shall submit a report including any applicable periods of excess emissions and monitoring systems performance as defined in 40 CFR, Part 60, Subpart GG (Standards of Performance for Stationary Gas Turbines) that occurred during the previous semi-annual period to the Compliance Authority. *{Permitting Note: If there are no periods of excess emissions as defined in 40 CFR, Part 60, Subpart GG, a statement to that effect may be submitted with the SIP Quarterly Report to suffice for the NSPS Semi-Annual Report.}*

[Rules 62-4.070(3), 62-4.130, 62-204.800, 62-210.700(6) and 62-212.400(BACT), F.A.C.; 40 CFR 60.7 and 60.334; and 1050233-018-AC, Specific Condition 29.]

**G.30. Annual Operating Report.** The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.; and 1050233-018-AC, Specific Condition 30.]

**G.31. Startup/Shutdown Report.** Within 30 days following the end of each calendar quarter, the permittee shall submit a report summarizing the following for each gas turbine: number of

startups and shutdowns in the quarter; the duration of each startup and shutdown in the quarter; and the CO and NO<sub>x</sub> mass emission rates (lb/hour) during each 1-hour block that includes a startup or shutdown. This temporary report that shall be submitted to the Compliance Authority and the Bureau of Air Regulation only for the first four initial quarters of operation. [Rule 62-4.070(3), F.A.C.; and 1050233-018-AC, Specific Condition 31.]

**Section IV. This section is the Acid Rain Part.**

**Operated by:** Tampa Electric Company  
**ORIS code:** 7242

**Subsection A. This subsection addresses Acid Rain, Phase II.**

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

<b>E.U. ID No.</b>	<b>Brief Description</b>
-001	260 MW Combined Cycle Combustion Turbine
-009	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-2
-010	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-3
-011	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-4
-012	Nominal 165 Megawatt Simple Cycle Gas Turbine CTG-5

**A.1.** The Phase II permit application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:  
a. DEP Form No. 62-210.900(1)(a), signed by the Designated Representative on April 27, 2006. [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

**A.2.** Sulfur dioxide (SO<sub>2</sub>) allowance allocations requirements for each Acid Rain unit are as follows:

<b>E.U. ID No.</b>	<b>EPA ID</b>	<b>Year</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
-001	**1	SO <sub>2</sub> allowances to be determined by U.S.EPA	0*	0*	0*	0*	0*
-009	002	SO <sub>2</sub> allowances to be determined by U.S.EPA	0*	0*	0*	0*	0*
-010	003	SO <sub>2</sub> allowances to be determined by U.S.EPA	0*	0*	0*	0*	0*
-011	004	SO <sub>2</sub> allowances to be determined by U.S.EPA	0*	0*	0*	0*	0*
-012	005	SO <sub>2</sub> allowances to be determined by U.S.EPA	0*	0*	0*	0*	0*

\* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the U.S.EPA under 40 CFR 73.

**A.3. Emission Allowances.** 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.

1. 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.

2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

**A.4. Fast-Track Revisions of Acid Rain Parts.** Those Acid Rain sources making a change described at Rule 62- 214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, F.A.C., Fast-Track.

Revisions of Acid Rain Parts.

[Rules 62-213.413 and 62-214.370(4), F.A.C.]

**A.5. Comments, notes, and justifications:**

None

## Appendix H-1: Permit History

Tampa Electric Company  
Polk Power Station

Permit Revision No.: 1050233-022-AV  
Facility ID No.: 1050233

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type <sup>1</sup>
All	Facility	1050233-001-AV	01/01/2000	12/31/2004	Initial
All	Facility	1050233-002-AC	12/14/1999	12/14/2004	Construction (mod.)
All	Facility	1050233-003-AV	Withdrawn		Revision
-001	260 MW Coal Gasification Combined Cycle CT	1050233-004-AC	11/17/2000	03/31/2001	Construction (mod.)
All	Facility	1050233-005-AC	06/20/2001	12/31/2001	Construction (mod.)
All	Facility	1050233-006-AV	Withdrawn		Revision
-009 -010	165 MW Simple Cycle CT 165 MW Simple Cycle CT	1050233-007-AC	02/05/2002	02/05/2007	Construction (new.)
-001	260 MW Coal Gasification Combined Cycle CT	1050233-008-AV	09/09/2001	12/31/2004	Revision
-001	260 MW Coal Gasification Combined Cycle CT	1050233-009-AV	11/08/2001	12/31/2004	Revision
-001	260 MW Coal Gasification Combined Cycle CT	1050233-010-AC	10/21/01	10/21/06	Construction (mod.)
-001	260 MW Coal Gasification Combined Cycle CT	1050233-011-AV	05/14/2002	12/31/2004	Admin. Correction
-004 -009 -010	Sulfuric Acid Plant 165 MW Simple Cycle CT 165 MW Simple Cycle CT	1050233-012-AV	05/25/2003	12/31/2004	Revision
All	Facility	1050233-014-AV	Withdrawn		Revision
-001	260 MW Coal Gasification Combined Cycle CT	1050233-015-AV	Withdrawn		Construction (mod.)
All	Facility	1050233-016-AV	01/01/2005	12/31/2009	Renewal
-011 and -012	165 MW Simple Cycle CT 165 MW Simple Cycle CT	1050233-018-AV	4/28/06	10/1/08	Construction (new)

-001, -004, -005 and -006	260 MW Coal Gasification Combined Cycle CT Sulfuric Acid Plant Solid Fuel Handling System Solid Fuel Gasification Plant	1050233-017-AC	11/9/04	11/9/07	Construction (mod.)
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<sup>1</sup> Project Type (select one): Title V: Initial, Revision, Renewal, or Admin. Correction; Construction (new or mod.); or, Extension (AC only).

**Table 1-1, Summary of Air Pollutant Standards and Terms**

Tampa Electric Company  
Polk Power Station

Permit No.: 1050233-022-AV  
Facility ID No.: 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**      **Brief Description**  
[-001]              260 MW Combined Cycle Combustion Turbine

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
SO <sub>2</sub>	Oil	10% Capacity	0.05% sulfur by weight					PSD-FL-194	III.A.3. & III.A.8.
VE	Oil	10% Capacity	20 % opacity					PSD-FL-194	III.A.3. & III.A.9.
VE	Syngas	8,760	10% opacity					PSD-FL-194	III.A.9.
<b>2 YEAR DEMONSTRATION PERIOD (This Period has passed and is kept for reference only.)</b>									
NO <sub>x</sub>	Oil	10% Capacity	42 to 48 ppmvd	311	N/A			PSD-FL-194(A)	III.A.3. & III.A.7.
NO <sub>x</sub>	Syngas	8,760		664.2	2,908.3			PSD-FL-194(A)	III.A.7.
VOC	Oil	10% Capacity		32	N/A			PSD-FL-194(A)	III.A.3. & III.A.7.
VOC	Syngas	8,760		3	38.5			PSD-FL-194(A)	III.A.7.
CO	Oil	10% Capacity		99	N/A			PSD-FL-194(A)	III.A.3. & III.A.7.
CO	Syngas	8,760		98	430.1			PSD-FL-194(A)	III.A.7.
PM / PM <sub>10</sub>	Oil	10% Capacity		17	N/A			PSD-FL-194(A)	III.A.3. & III.A.7.
PM / PM <sub>10</sub>	Syngas	8,760		17	74.5			PSD-FL-194(A)	III.A.7.
Pb	Oil	10% Capacity		0.101	N/A			PSD-FL-194(A)	III.A.3. & III.A.7.
Pb	Syngas	8,760		0.023	0.13			PSD-FL-194(A)	III.A.7.
SO <sub>2</sub>	Oil	10% Capacity		92.2	N/A			PSD-FL-194(A)	III.A.3. & III.A.7.
SO <sub>2</sub>	Syngas	8,760		518	2269			PSD-FL-194(A)	III.A.7.
Sulfuric Acid	Syngas	8,760		55	241			PSD-FL-194(A)	III.A.7.
Inorganic Arsenic	Syngas	8,760		0.08	0.35			PSD-FL-194(A)	III.A.7.
Beryllium	Syngas	8,760		0.0001	0.0029			PSD-FL-194(A)	III.A.7.
Mercury	Syngas	8,760		0.025	0.11			PSD-FL-194(A)	III.A.7.
<b>POST DEMONSTRATION PERIOD</b>									
NO <sub>x</sub>	Oil	10% Capacity	42 to 48 ppmvd	311	N/A			PSD-FL-194(A)	III.A.3., III.A.5. & III.A.6.
NO <sub>x</sub>	Syngas	8,760	25 ppmvd	220.25	1,032.9			PSD-FL-194(A)	III.A.5. & III.A.6.
VOC	Oil	10% Capacity	0.028 lb / MMBtu	32	N/A			PSD-FL-194(A)	III.A.3. & III.A.5.
VOC	Syngas	8,760	0.0017 lb / MMBtu	3	38.5			PSD-FL-194(A)	III.A.5.
CO	Oil	10% Capacity	40 ppmvd	99	N/A			PSD-FL-194(A)	III.A.3. & III.A.5.
CO	Syngas	8,760	25 ppmvd	98	430.1			PSD-FL-194(A)	III.A.5.
PM / PM <sub>10</sub>	Oil	10% Capacity	0.009 lb / MMBtu	17	N/A			PSD-FL-194(A)	III.A.3. & III.A.5.
PM / PM <sub>10</sub>	Syngas	8,760	0.013 lb / MMBtu	17	74.5			PSD-FL-194(A)	III.A.5.
Pb	Oil	10% Capacity	5.30E-5 lb / MMBtu	0.101	N/A			PSD-FL-194(A)	III.A.3. & III.A.5.
Pb	Syngas	8,760	2.41E-6 lb / MMBtu	0.0035	0.067			PSD-FL-194(A)	III.A.5.
SO <sub>2</sub>	Oil	10% Capacity	0.048 lb / MMBtu	92.2	N/A			PSD-FL-194(A)	III.A.3. & III.A.5.
SO <sub>2</sub>	Syngas	8,760	0.17 lb / MMBtu	357	1,563.7			PSD-FL-194(A)	III.A.5.
Sulfuric Acid	Syngas	8,760		55	241			PSD-FL-194(A)	III.A.5.
Inorganic Arsenic	Syngas	8,760		0.0006	0.019			PSD-FL-194(A)	III.A.5.
Beryllium	Syngas	8,760		0.0001	0.0029			PSD-FL-194(A)	III.A.5.
Mercury	Syngas	8,760		0.0034	0.017			PSD-FL-194(A)	III.A.5.

Notes:

\* The "Equivalent Emissions" listed are for informational purposes only.



**Table 1-1, Summary of Air Pollutant Standards and Terms**

Tampa Electric Company  
Polk Power Station

Permit No.: 1050233-022-AV  
Facility ID No.: 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**    **Brief Description**  
[-003]        120 Million Btu per Hour Auxiliary Boiler

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
SO <sub>2</sub>	Oil	8,760	0.80 lb / MMBtu			96.0	392.6**	40CFR60.42b(a)&(j)	III.B.1., III.B.4. & III.B.5.
SO <sub>2</sub>	Oil	8,760	0.05% sulfur by weight					PSD-FL-194	III.B.7.
PM	Oil	8,760	0.10 lb / MMBtu			12.0	12.0	40CFR60.43b(b)	III.B.1., III.B.4. & III.B.9.
VE	Oil	8,760	20% except 27% one six-min. / hr					40CFR60.43b(f) & PSD-FL-194(A)	III.B.10.
NO <sub>x</sub>	Oil	8,760	0.10 lb / MMBtu			12.0	12.0	40CFR60.44b(a) & PSD-FL-194(A)	III.B.1., III.B.4. & III.B.11.

Notes:  
 \* The "Equivalent Emissions" listed are for informational purposes only.  
 \*\* Based on 3,000 hrs. at capacity and 5,760 hrs. at less than capacity (capacity is defined as 90-100% of maximum operation rate)

**Table 1-1, Summary of Air Pollutant Standards and Terms**

Tampa Electric Company  
Polk Power Station

**Permit No.:** 1050233-022-AV  
**Facility ID No.:** 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**    **Brief Description**  
[-004]        Sulfuric Acid Plant

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
VE	Propane	8,760	10% opacity					62-296.402(2)(a)	III.C.5.
SO <sub>2</sub>	Propane	8,760	4 lb / ton 100% acid			35.6	155.3	62-296.402(2)(b)	III.C.1. & III.C.6.
Acid Mist	Propane	8,760	0.15 lb / ton 100% acid			1.34	5.8	62-296.402(2)(c)	III.C.1. & III.C.7.

Notes:  
\* The "Equivalent Emissions" listed are for informational purposes only.

**Table 1-1, Summary of Air Pollutant Standards and Terms**

Tampa Electric Company  
Polk Power Station

Permit No.: 1050233-022-AV  
Facility ID No.: 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.    Brief Description**  
[-005]    Solid Fuel Handling System

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
VE		8,760	5% opacity					PSD-FL-194(A)	III.D.3.

**Notes:**

\* The "Equivalent Emissions" listed are for informational purposes only.

**Table 1-1, Summary of Air Pollutant Standards and Terms**

Tampa Electric Company  
Polk Power Station

Permit No.: 1050233-022-AV  
Facility ID No.: 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**    **Brief Description**  
[-006]        Solid Fuel Gasification System

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
		8,760	2.325 tons / day coal					PSD-FL-194	III.E.1.

**Notes:**

\* The "Equivalent Emissions" listed are for informational purposes only.

**Table 1-1, Summary of Air Pollutant Standards and Terms**

Tampa Electric Company  
Polk Power Station

Permit No.: 1050233-022-AV  
Facility ID No.: 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
[-011]	Simple Cycle Gas Turbine Generator
[-012]	Simple Cycle Gas Turbine Generator

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citations	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
CO	Natural Gas				99.0			PSD-FL-363	G.9.
NO <sub>x</sub>	Natural Gas		9.0 ppmvd @O <sub>2</sub>					PSD-FL-363	G.9.
PM/PM <sub>10</sub>	Natural Gas		10% Opacity					PSD-FL-363	G.9.
SO <sub>2</sub>	Natural Gas		2 grains S/100 SCF gas					PSD-FL-363	G.9.

Notes:

\* The "Equivalent Emissions" listed are for informational purposes only.

**Table 2-1, Summary of Compliance Requirements**

Tampa Electric Company  
Polk Power Station

Permit No.: 1050233-022-AV  
Facility ID No.: 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**      **Brief Description**  
[-001]      260 MW Combined Cycle Combustion Turbine

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	See permit condition(s)	
						CMS**	
NO <sub>x</sub>	All	EPA Method 20	Annual	1-Jun-96	1-hour	Yes	III.A.19. & III.A.34.
SO <sub>2</sub>	All	EPA Method 20	Annual	1-Jun-96	1-hour		III.A.19. & III.A.23.
VOC	All	EPA Method 18	Renewal	1-Jun-96	1-hour		III.A.20.
CO	All	EPA Method 10	Annual	1-Jun-96	1-hour		III.A.21.
PM / PM <sub>10</sub>	Oil	EPA Method 5B	Renewal	1-Jun-96	1-hour		III.A.22.
SO <sub>2</sub> % Sulfur	All	ASTM Methods	Daily / Transfer	1-Jun-96			III.A.24.
VE	All	EPA Method 9	Annual	1-Jun-96	30-minutes		III.A.26.
Pb	All		Initial Only	1-Jun-96			III.A.27.
Sulfuric Acid Mist	Syngas		Initial Only	1-Jun-96			III.A.27.
Inorganic Arsenic	Syngas		Initial Only	1-Jun-96			III.A.27.
Beryllium	Syngas		Initial Only	1-Jun-96			III.A.27.
Mercury	Syngas		Initial Only	1-Jun-96			III.A.27.

Notes:  
\* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.  
\*\*CMS [=] continuous monitoring system

**Table 2-1, Summary of Compliance Requirements**

Tampa Electric Company  
Polk Power Station

**Permit No.:** 1050233-022-AV  
**Facility ID No.:** 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**    **Brief Description**  
[-003]    120 Million Btu per Hour Auxiliary Boiler

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	See permit condition(s)	
						CMS**	
SO <sub>2</sub>	Oil	ASTM D2880	Each delivery	1-Jun-96			III.B.19. & III.B.31.
PM	Oil	EPA Method 5 or 17	Renewal	1-Jun-96	120 minutes		III.B.20.
VE	Oil	EPA Method 9	Annual	1-Jun-96	30-minutes	Yes	III.B.21.
NO <sub>x</sub>	Oil	EPA Method 7, 7A, 7C, 7D, or 7E	Renewal	1-Jun-96	1-hour	Yes	III.B.22.

Notes:  
 \* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.  
 \*\*CMS [=] continuous monitoring system

**Table 2-1, Summary of Compliance Requirements**

Tampa Electric Company  
Polk Power Station

**Permit No.:** 1050233-022-AV  
**Facility ID No.:** 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**      **Brief Description**  
[-004]      Sulfuric Acid Plant

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See permit condition(s)
VE	Propane	DEP Method 9	Annual		30-minutes		III.C.12. & III.C.13. III.C.14. III.C.14.
SO <sub>2</sub>	Propane	EPA Method 8	Annual		1-hour		
Sulfuric Acid Mist	Propane	EPA Method 8	Renewal		1-hour		

Notes:  
 \* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.  
 \*\*CMS [=] continuous monitoring system



**Table 2-1, Summary of Compliance Requirements**

Tampa Electric Company  
Polk Power Station

Permit No.: 1050233-022-AV  
Facility ID No.: 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**      **Brief Description**  
[-005]      Solid Fuel Handling System

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	See permit condition(s)	
						CMS**	
VE		EPA Method 9	Annual		30-minutes		III.D.4.

Notes:

\* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

\*\*CMS [=] continuous monitoring system

**Table 2-1, Summary of Compliance Requirements**

Tampa Electric Company  
Polk Power Station

Permit No.: 1050233-022-AV  
Facility ID No.: 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**      **Brief Description**  
[-006]      Solid Fuel Gasification System

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	See permit condition(s)	
						CMS**	
Coal input		Recordkeeping	Daily				III.E.3. & III.E.4.

Notes:  
 \* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.  
 \*\*CMS [=] continuous monitoring system

**Table 2-1, Summary of Compliance Requirements**

Tampa Electric Company  
Polk Power Station

Permit No.: 1050233-022-AV  
Facility ID No.: 1050233

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
{-011}	Simple Cycle Gas Turbine Generator
{-012}	Simple Cycle Gas Turbine Generator

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing	Frequency	Min. Compliance	CMS**	See permit condition(s)
			Time Frequency	Base Date *	Test Duration		
CO	Natural Gas	CEMS				Yes	G.9.
NO <sub>x</sub>	Natural Gas	CEMS				Yes	G.9.
PM/PM <sub>10</sub> (VE)	Natural Gas	Method 9	Annual		1 hour		G.9.
SO <sub>2</sub>	Natural Gas	Record Keeping					G.9.

Notes:

\* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

\*\*CMS [=] continuous monitoring system

# Appendix GG – NSPS Subpart GG Requirements for Gas Turbines

Updated 4/27/06

Source [44 FR 52798, Sept. 10, 1979, as amended at 52 FR 42434, Nov. 5, 1987; 65 FR 61759, Oct. 17, 2000; 69 FR 41346, July 8, 2004]

## Subpart GG-Standards of Performance for Stationary Gas Turbines

### § 60.330 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of § 60.332.

### § 60.331 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Stationary gas turbine* means any simple cycle gas turbine, regenerative cycle gas turbine or any gas turbine portion of a combined cycle steam/electric generating system that is not self propelled. It may, however, be mounted on a vehicle for portability.

(b) *Simple cycle gas turbine* means any stationary gas turbine which does not recover heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine, or which does not recover heat from the gas turbine exhaust gases to heat water or generate steam.

(c) *Regenerative cycle gas turbine* means any stationary gas turbine which recovers heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine.

(d) *Combined cycle gas turbine* means any stationary gas turbine which recovers heat from the gas turbine exhaust gases to heat water or generate steam.

(e) *Emergency gas turbine* means any stationary gas turbine which operates as a mechanical or electrical power source only when the primary power source for a facility has been rendered inoperable by an emergency situation.

(f) *Ice fog* means an atmospheric suspension of highly reflective ice crystals.

(g) *ISO standard day conditions* means 288 degrees Kelvin, 60 percent relative humidity and 101.3 kilopascals pressure.

(h) *Efficiency* means the gas turbine manufacturer's rated heat rate at peak load in terms of heat input per unit of power output based on the lower heating value of the fuel.

## Appendix GG – NSPS Subpart GG Requirements for Gas Turbines

- (i) *Peak load* means 100 percent of the manufacturer's design capacity of the gas turbine at ISO standard day conditions.
- (j) *Base load* means the load level at which a gas turbine is normally operated.
- (k) *Fire-fighting turbine* means any stationary gas turbine that is used solely to pump water for extinguishing fires.
- (l) *Turbines employed in oil/gas production or oil/gas transportation* means any stationary gas turbine used to provide power to extract crude oil/natural gas from the earth or to move crude oil/natural gas, or products refined from these substances through pipelines.
- (m) A *Metropolitan Statistical Area* or *MSA* as defined by the Department of Commerce.
- (n) *Offshore platform gas turbines* means any stationary gas turbine located on a platform in an ocean.
- (o) *Garrison facility* means any permanent military installation.
- (p) *Gas turbine model* means a group of gas turbines having the same nominal air flow, combustor inlet pressure, combustor inlet temperature, firing temperature, turbine inlet temperature and turbine inlet pressure.
- (q) *Electric utility stationary gas turbine* means any stationary gas turbine constructed for the purpose of supplying more than one-third of its potential electric output capacity to any utility power distribution system for sale.
- (r) *Emergency fuel* is a fuel fired by a gas turbine only during circumstances, such as natural gas supply curtailment or breakdown of delivery system, that make it impossible to fire natural gas in the gas turbine.
- (s) *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.
- (t) *Excess emissions* means a specified averaging period over which either:
- (1) The NO<sub>x</sub> emissions are higher than the applicable emission limit in Sec. 60.332;
  - (2) The total sulfur content of the fuel being combusted in the affected facility exceeds the limit specified in Sec. 60.333; 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.
- (u) *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. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Equivalents of this in other units are as follows: 0.068 weight percent total sulfur, 680 parts per million by weight (ppmw) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur. Additionally, natural gas must either be composed of at least 70 percent methane by

## Appendix GG – NSPS Subpart GG Requirements for Gas Turbines

volume or have a gross calorific value between 950 and 1100 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.

(v) Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generating unit.

(w) Lean premix stationary combustion turbine means any stationary combustion turbine where the air and fuel are thoroughly mixed to form a lean mixture for combustion in the combustor. Mixing may occur before or in the combustion chamber. A unit which is capable of operating in both lean premix and diffusion flame modes is considered a lean premix stationary combustion turbine when it is in the lean premix mode, and it is considered a diffusion flame stationary combustion turbine when it is in the diffusion flame mode.

(x) 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. A unit which is capable of operating in both lean premix and diffusion flame modes is considered a lean premix stationary combustion turbine when it is in the lean premix mode, and it is considered a diffusion flame stationary combustion turbine when it is in the diffusion flame mode.

(y) Unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

### § 60.332 Standard for nitrogen oxides.

(a) On and after the date on which the performance test required by § 60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c), and (d) of this section shall comply with one of the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.

(1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075 \frac{(14.4)}{Y} + F$$

where:

STD = allowable ISO corrected (if required as given in Sec. 60.335(b)(1)) NO<sub>x</sub> emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

## Appendix GG – NSPS Subpart GG Requirements for Gas Turbines

F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

(2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0150 \frac{(14.4)}{Y} + F$$

where:

STD = allowable ISO corrected (if required as given in Sec. 60.335(b)(1)) NO<sub>x</sub> emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

(3) The use of F in paragraphs (a)(1) and (2) of this section is optional. That is, the owner or operator may choose to apply a NO<sub>x</sub> allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with paragraph (a)(4) of this section or may accept an F-value of zero.

(4) If the owner or operator elects to apply a NO<sub>x</sub> emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under Sec. 60.8 as follows:

Fuel-bound nitrogen (% by weight)	F (NO <sub>x</sub> % by volume)
N ≤ 0.015.....	0
0.015 < N ≤ 0.1.....	0.04(N)
0.1 < N ≤ 0.25.....	0.004 + 0.0067(N - 0.1)
N > 0.25.....	0.005

Where:

N = the nitrogen content of the fuel (percent by weight). or:

Manufacturers may develop and submit to EPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the Administrator before the initial performance test required by Sec. 60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.

(b) Electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of paragraph (a)(1) of this section.

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(c) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired, shall comply with the provisions of paragraph (a)(2) of this section.

(d) Stationary gas turbines with a manufacturer's rated base load at ISO conditions of 30 megawatts or less except as provided in § 60.332(b) shall comply with paragraph (a)(2) of this section.

(e) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired and that have commenced construction prior to October 3, 1982 are exempt from paragraph (a) of this section.

(f) Stationary gas turbines using water or steam injection for control of NO<sub>x</sub> emissions are exempt from paragraph (a) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine.

(g) Emergency gas turbines, military gas turbines for use in other than a garrison facility, military gas turbines installed for use as military training facilities, and fire fighting gas turbines are exempt from paragraph (a) of this section.

(h) Stationary gas turbines engaged by manufacturers in research and development of equipment for both gas turbine emission control techniques and gas turbine efficiency improvements are exempt from paragraph (a) on a case-by-case basis as determined by the Administrator.

(i) Exemptions from the requirements of paragraph (a) of this section will be granted on a case-by-case basis as determined by the Administrator in specific geographical areas where mandatory water restrictions are required by governmental agencies because of drought conditions. These exemptions will be allowed only while the mandatory water restrictions are in effect.

(j) Stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour that commenced construction, modification, or reconstruction between the dates of October 3, 1977, and January 27, 1982, and were required in the September 10, 1979, Federal Register (44 FR 52792) to comply with paragraph (a)(1) of this section, except electric utility stationary gas turbines, are exempt from paragraph (a) of this section.

(k) Stationary gas turbines with a heat input greater than or equal to 10.7 gigajoules per hour (10 million Btu/hour) when fired with natural gas are exempt from paragraph (a)(2) of this section when being fired with an emergency fuel.

(l) Regenerative cycle gas turbines with a heat input less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) are exempt from paragraph (a) of this section.

### § 60.333 Standard for sulfur dioxide.

On and after the date on which the performance test required to be conducted by § 60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions:



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(a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.

(b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).

### § 60.334 Monitoring of operations.

(a) Except as provided in paragraph (b) of this section, the owner or operator of any stationary gas turbine subject to the provisions of this subpart and using water or steam injection to control NO<sub>x</sub> emissions shall 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.

(b) The owner or operator of any stationary gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which uses water or steam injection to control NO<sub>x</sub> emissions may, as an alternative to operating the continuous monitoring system described in paragraph (a) of this section, install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NO<sub>x</sub> and O<sub>2</sub> monitors. As an alternative, a CO<sub>2</sub> monitor may be used to adjust the measured NO<sub>x</sub> concentrations to 15 percent O<sub>2</sub> by either converting the CO<sub>2</sub> hourly averages to equivalent O<sub>2</sub> concentrations using Equation F-14a or F-14b in appendix F to part 75 of this chapter and making the adjustments to 15 percent O<sub>2</sub>, or by using the CO<sub>2</sub> readings directly to make the adjustments, as described in Method 20. If the option to use a CEMS is chosen, the CEMS shall be installed, certified, maintained and operated as follows:

(1) Each CEMS must be installed and certified according to PS 2 and 3 (for diluent) of 40 CFR part 60, appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. Appendix F, Procedure 1 is not required. The relative accuracy test audit (RATA) of the NO<sub>x</sub> and diluent monitors may be performed individually or on a combined basis, i.e., the relative accuracy tests of the CEMS may be performed either:

(i) On a ppm basis (for NO<sub>x</sub>) and a percent O<sub>2</sub> basis for oxygen; or

(ii) On a ppm at 15 percent O<sub>2</sub> basis; or

(iii) On a ppm basis (for NO<sub>x</sub>) and a percent CO<sub>2</sub> basis (for a CO<sub>2</sub> monitor that uses the procedures in Method 20 to correct the NO<sub>x</sub> data to 15 percent O<sub>2</sub>).

(2) As specified in Sec. 60.13(e)(2), during each full unit operating hour, each 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 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 to validate the hour.

(3) For purposes of identifying excess emissions, CEMS data must be reduced to hourly averages as specified in Sec. 60.13(h).

(i) For each unit operating hour in which a valid hourly average, as described in paragraph (b)(2) of this section, is obtained for both NO<sub>x</sub> and diluent, the data acquisition and handling system must calculate and record the hourly NO<sub>x</sub> emissions in the

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units of the applicable NO<sub>x</sub> emission standard under Sec. 60.332(a), i.e., percent NO<sub>x</sub> by volume, dry basis, corrected to 15 percent O<sub>2</sub> and International Organization for Standardization (ISO) standard conditions (if required as given in Sec. 60.335(b)(1)). For any hour in which the hourly average O<sub>2</sub> concentration exceeds 19.0 percent O<sub>2</sub>, a diluent cap value of 19.0 percent O<sub>2</sub> may be used in the emission calculations.

(ii) A worst case ISO correction factor may be calculated and applied using historical ambient data. For the purpose of this calculation, substitute the maximum humidity of ambient air (H<sub>o</sub>), minimum ambient temperature (T<sub>a</sub>), and minimum combustor inlet absolute pressure (P<sub>o</sub>) into the ISO correction equation.

(iii) If the owner or operator has installed a NO<sub>x</sub> CEMS to meet the requirements of part 75 of this chapter, and is continuing to meet the ongoing requirements of part 75 of this chapter, the CEMS may be used to meet the requirements of this section, except that the missing data substitution methodology provided for at 40 CFR part 75, subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in Sec. 60.7(c).

(c) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NO<sub>x</sub> emissions, the owner or operator may, but is not required to, for purposes of determining excess emissions, use a CEMS that meets the requirements of paragraph (b) of this section. Also, if the owner or operator has previously submitted and received EPA, State, or local permitting authority approval of a procedure for monitoring compliance with the applicable NO<sub>x</sub> emission limit under Sec. 60.332, that approved procedure may continue to be used.

(d) The owner or operator of any new turbine constructed after July 8, 2004, and which uses water or steam injection to control NO<sub>x</sub> emissions may elect to use either the requirements in paragraph (a) of this section for continuous water or steam to fuel ratio monitoring or may use a NO<sub>x</sub> CEMS installed, certified, operated, maintained, and quality-assured as described in paragraph (b) of this section.

(e) The owner or operator of any new turbine that commences construction after July 8, 2004, and which does not use water or steam injection to control NO<sub>x</sub> emissions, may, but is not required to, elect to use a NO<sub>x</sub> CEMS installed, certified, operated, maintained; and quality-assured as described in paragraph (b) of this section. Other acceptable monitoring approaches include periodic testing approved by EPA or the State or local permitting authority or continuous parameter monitoring as described in paragraph (f) of this section.

(f) The owner or operator of a new turbine that commences construction after July 8, 2004, which does not use water or steam injection to control NO<sub>x</sub> emissions may, but is not required to, perform continuous parameter monitoring as follows:

(1) For a diffusion flame turbine without add-on selective catalytic reduction controls (SCR), the owner or operator shall define at least four parameters indicative of the unit's NO<sub>x</sub> formation characteristics and shall monitor these parameters continuously.

(2) For any lean premix stationary combustion turbine, the owner or operator shall continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO<sub>x</sub> mode.

(3) For any turbine that uses SCR to reduce NO<sub>x</sub> emissions, the owner or operator shall continuously monitor appropriate parameters to verify the proper operation of the emission controls.

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(4) For affected units that are also regulated under part 75 of this chapter, if the owner or operator elects to monitor NO<sub>x</sub> emission rate using the methodology in appendix E to part 75 of this chapter, or the low mass emissions methodology in Sec. 75.19 of this chapter, the requirements of this paragraph (f) may be met by performing the parametric monitoring described in section 2.3 of appendix E or in Sec. 75.19(c)(1)(iv)(H) of this chapter.

(g) The steam or water to fuel ratio or other parameters that are continuously monitored as described in paragraphs (a), (d) or (f) of this section shall be monitored during the performance test required under Sec. 60.8, to establish acceptable values and ranges. The owner or operator 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. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO<sub>x</sub> emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan. For affected units that are also subject to part 75 of this chapter and that use the low mass emissions methodology in Sec. 75.19 of this chapter or the NO<sub>x</sub> emission measurement methodology in appendix E to part 75, the owner or operator may meet the requirements of this paragraph by developing and keeping on-site (or at a central location for unmanned facilities) a quality-assurance plan, as described in Sec. 75.19 (e)(5) or in section 2.3 of appendix E and section 1.3.6 of appendix B to part 75 of this chapter.

(h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:

(1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of this section. The sulfur content of the fuel must be determined using total sulfur methods described in Sec. 60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see Sec. 60.17), which measure the major sulfur compounds may be used; and

(2) Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in Sec. 60.332). The nitrogen content of the fuel shall be determined using methods described in Sec. 60.335(b)(9) or an approved alternative.

(3) Notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in Sec. 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

(i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

(ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. 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.

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(4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.

(i) The frequency of determining the sulfur and nitrogen content of the fuel shall be as follows:

(1) 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). If an emission allowance is being claimed for fuel-bound nitrogen, the nitrogen content of the oil shall be determined and recorded once per unit operating day.

(2) Gaseous fuel. Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day. For owners and operators that elect not to demonstrate sulfur content using options in paragraph (h)(3) of this section, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.

(3) Custom schedules. Notwithstanding the requirements of paragraph (i)(2) 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 (i)(3)(i) and (i)(3)(ii) 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 Sec. 60.333.

(i) The two custom sulfur monitoring schedules set forth in paragraphs (i)(3)(i)(A) through (D) and in paragraph (i)(3)(ii) of this section are acceptable, without prior Administrative approval:

(A) 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 (i)(3)(i)(B), (C), or (D) of this section, as applicable:

(B) If none of the 30 daily measurements of the fuel's total sulfur content exceeds 0.4 weight percent (4000 ppmw), 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 between 0.4 and 0.8 weight percent (4000 and 8000 ppmw), follow the procedures in paragraph (i)(3)(i)(C) of this section. If any measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section.

(C) If at least one of the 30 daily measurements of the fuel's total sulfur content is between 0.4 and 0.8 weight percent (4000 and 8000 ppmw), but none exceeds 0.8 weight percent (8000 ppmw), then:

(1) Collect and analyze a sample every 30 days for three months. If any sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section. Otherwise, follow the procedures in paragraph (i)(3)(i)(C)(2) of this section.

(2) Begin monitoring at 6-month intervals for 12 months. If any sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section. Otherwise, follow the procedures in paragraph (i)(3)(i)(C)(3) of this section.

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(3) Begin monitoring at 12-month intervals. If any sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section. Otherwise, continue to monitor at this frequency.

(D) If a sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), immediately begin daily monitoring according to paragraph (i)(3)(i)(A) of this section. Daily monitoring shall continue until 30 consecutive daily samples, each having a sulfur content no greater than 0.8 weight percent (8000 ppmw), are obtained. At that point, the applicable procedures of paragraph (i)(3)(i)(B) or (C) of this section shall be followed.

(ii) 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:

(A) If the maximum fuel sulfur content obtained from the 720 hourly samples does not exceed 20 grains/100 scf (i.e., the maximum total sulfur content of natural gas as defined in Sec. 60.331(u)), no additional monitoring of the sulfur content of the gas is required, for the purposes of this subpart.

(B) 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 0.4 weight percent (4000 ppmw), then the minimum required sampling frequency shall be one sample at 12 month intervals.

(C) If any sample result exceeds 0.4 weight percent sulfur (4000 ppmw), but none exceeds 0.8 weight percent sulfur (8000 ppmw), follow the provisions of paragraph (i)(3)(i)(C) of this section.

(D) If the sulfur content of any of the 720 hourly samples exceeds 0.8 weight percent (8000 ppmw), follow the provisions of paragraph (i)(3)(i)(D) of this section.

(j) For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with Sec. 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under Sec. 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

(1) Nitrogen oxides.

(i) For turbines using water or steam to fuel ratio monitoring:

(A) An excess emission shall be any unit operating hour for which the 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 Sec. 60.332, as established during the performance test required in Sec. 60.8. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission.

(B) A period of monitor downtime shall be 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.

(C) Each report shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in Sec. 60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of Sec. 60.335(b)(1).

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(ii) If the owner or operator elects to take an emission allowance for fuel bound nitrogen, then excess emissions and periods of monitor downtime are as described in paragraphs (j)(1)(ii)(A) and (B) of this section.

(A) An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in Sec. 60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value, and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value.

(B) 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 that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

(iii) For turbines using NO<sub>x</sub> and diluent CEMS:

(A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO<sub>x</sub> concentration exceeds the applicable emission limit in Sec. 60.332(a)(1) or (2). For the purposes of this subpart, a "4-hour rolling average NO<sub>x</sub> concentration" is the arithmetic average of the average NO<sub>x</sub> concentration measured by the CEMS for a given hour (corrected to 15 percent O<sub>2</sub> and, if required under Sec. 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO<sub>x</sub> concentrations immediately preceding that unit operating hour.

(B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO<sub>x</sub> concentration or diluent (or both).

(C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the owner or operator has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in Sec. 60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of Sec. 60.335(b)(1).

(iv) For owners or operators that elect, under paragraph (f) of this section, to monitor combustion parameters or parameters that document proper operation of the NO<sub>x</sub> emission controls:

(A) An excess emission shall be 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.

(B) A period of monitor downtime shall be a unit operating hour in which any of the required parametric data are either not recorded or are invalid.

(2) Sulfur dioxide. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:

(i) 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 gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

(ii) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall 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

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content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to paragraph (j)(2)(i) of this section. When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option.

(iii) 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 shall include only unit operating hours, and ends on the date and hour of the next valid sample.

(3) *Ice fog.* Each period during which an exemption provided in § 60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

(4) *Emergency fuel.* Each period during which an exemption provided in § 60.332(k) is in effect shall be included in the report required in § 60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported.

(5) All reports required under Sec. 60.7(c) shall be postmarked by the 30th day following the end of each 6-month period.

### Sec. 60.335 Test methods and procedures.

(a) The owner or operator shall conduct the performance tests required in Sec. 60.8, using either

- (1) EPA Method 20,
- (2) ASTM D6522-00 (incorporated by reference, see Sec. 60.17), or
- (3) EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to

determine  $\text{NO}_x$  and diluent concentration.

(4) Sampling traverse points are to be selected following Method 20 or Method 1, (non-particulate procedures) and sampled for equal time intervals. The sampling shall 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.

(5) Notwithstanding paragraph (a)(4) of this section, the owner or operator may test at few points than are specified in Method 1 or Method 20 if the following conditions are met:

- (i) You may perform a stratification test for  $\text{NO}_x$  and diluent pursuant to
  - (A) [Reserved]
  - (B) The procedures specified in section 6.5.6.1(a) through (e)

appendix A to part 75 of this chapter.

(ii) Once the stratification sampling is completed, the owner or operator may use the following alternative sample point selection criteria for the performance test:

(A) If each of the individual traverse point  $\text{NO}_x$  concentrations, normalized to 15 percent  $\text{O}_2$ , is within 10 percent of the mean normalized concentration for all traverse points, then you may use 3 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 3 points shall be located along the measurement line that exhibited the highest average normalized  $\text{NO}_x$  concentration during the stratification test; or

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(B) If each of the individual traverse point NO<sub>x</sub> concentrations, normalized to 15 percent O<sub>2</sub>, is within 5 percent of the mean normalized concentration for all traverse points, then you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid.

(6) Other acceptable alternative reference methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in Sec. 60.332 and shall meet the performance test requirements of Sec. 60.8 as follows:

(1) For each run of the performance test, the mean nitrogen oxides emission concentration (NO<sub>xo</sub>) corrected to 15 percent O<sub>2</sub> shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices:

$$NO_x = (NO_{x_o})(P_r/P_o)^{0.5} e^{19(H_o - 0.00633)} (288[\text{deg}]\text{K}/T_a)^{1.53}$$

Where:

NO<sub>x</sub> = emission concentration of NO<sub>x</sub> at 15 percent O<sub>2</sub> and ISO standard ambient conditions, ppm by volume, dry basis,

NO<sub>xo</sub> = mean observed NO<sub>x</sub> concentration, ppm by volume, dry basis, at 15 percent O<sub>2</sub>,

P<sub>r</sub> = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg,

P<sub>o</sub> = observed combustor inlet absolute pressure at test, mm Hg,

H<sub>o</sub> = observed humidity of ambient air, g H<sub>2</sub>O/g air,

e = transcendental constant, 2.718, and

T<sub>a</sub> = ambient temperature, [deg]K.

(2) The 3-run performance test required by Sec. 60.8 must be performed within 5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine; including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in Sec. 60.331).

(3) For a combined cycle turbine system with supplemental heat (duct burner), the owner or operator may elect to measure the turbine NO<sub>x</sub> emissions after the duct burner rather than directly after the turbine. If the owner or operator elects to use this alternative sampling location, the applicable NO<sub>x</sub> emission limit in Sec. 60.332 for the combustion turbine must still be met.

(4) If water or steam injection is used to control NO<sub>x</sub> with no additional post-combustion NO<sub>x</sub> control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with Sec. 60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20, ASTM D6522-00 (incorporated by reference, see Sec. 60.17), or EPA Method 7E run and shall be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable Sec. 60.332 NO<sub>x</sub> emission limit.



## Appendix GG – NSPS Subpart GG Requirements for Gas Turbines

(5) If the owner operator elects to claim an emission allowance for fuel bound nitrogen as described in Sec. 60.332, then concurrently with each reference method run, a representative sample of the fuel used shall be collected and analyzed, following the applicable procedures described in Sec. 60.335(b)(9). These data shall be used to determine the maximum fuel nitrogen content for which the established water (or steam) to fuel ratio will be valid.

(6) If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in paragraph (b)(7) of this section) or as part of the initial performance test of the affected unit.

(7) If the owner or operator elects to install and certify a NO<sub>x</sub> CEMS under Sec. 60.334(e), then the initial performance test required under Sec. 60.8 may be done in the following alternative manner:

(i) Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load.

(ii) Use the test data both to demonstrate compliance with the applicable NO<sub>x</sub> emission limit under Sec. 60.332 and to provide the required reference method data for the RATA of the CEMS described under Sec. 60.334(b).

(iii) The requirement to test at three additional load levels is waived.

(8) If the owner or operator elects under Sec. 60.334(f) to monitor combustion parameters or parameters indicative of proper operation of NO<sub>x</sub> emission controls, the appropriate parameters shall 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 Sec. 60.334(g).

(9) To determine the fuel bound nitrogen content of fuel being fired (if an emission allowance is claimed for fuel bound nitrogen), the owner or operator may use equipment and procedures meeting the requirements of:

(i) For liquid fuels, ASTM D2597-94 (Reapproved 1999), D6366-99, D4629-02, D5762-02 (all of which are incorporated by reference, see Sec. 60.17); or

(ii) For gaseous fuels, shall use analytical methods and procedures that are accurate to within 5 percent of the instrument range and are approved by the Administrator.

(10) If the owner or operator is required under Sec. 60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

(i) For liquid fuels, ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 (all of which are incorporated by reference, see Sec. 60.17); or

(ii) For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which are incorporated by reference, see Sec. 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator.

(11) The fuel analyses required under paragraphs (b)(9) and (b)(10) of this section may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

## **Appendix GG – NSPS Subpart GG Requirements for Gas Turbines**

(1) Instead of using the equation in paragraph (b)(1) of this section, manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in Sec. 60.8 to ISO standard day conditions.

## Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Tampa Electric Company  
Polk Power Station

Permit Revision No.: 1050233-022-AV  
Facility ID No.: 1050233

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Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘insignificant emissions units’.

### E.U. ID

#### No.

#### Brief Description of Emissions Units and/or Activity

- |      |  |
|------|--|
| -007 | One or more emergency generators which are not subject to the Acid Rain Program and have a total fuel consumption, in the aggregate, of 32,000 gallons per year or less of diesel fuel, 4,000 gallons per year or less of gasoline, 4.4 million cubic feet per year or less of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.  |
| -008 | One or more heating units and general purpose internal combustion engines which are not subject to the Acid Rain Program and have a total fuel consumption, in the aggregate, of 32,000 gallons per year or less of diesel fuel, 4,000 gallons per year or less of gasoline, 4.4 million cubic feet per year or less of natural gas or propane, or an equivalent prorated amount if multiple fuels are used. |

## Appendix I-1, List of Insignificant Emissions Units and/or Activities.

Tampa Electric Company  
Polk Power Station

Permit Revision No.: 1050233-022-AV  
Facility ID No.: 1050233

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 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 Rule 62-210.300(3)(a), 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 Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

### Brief Description of Emissions Units and/or Activities

1. Brazing, soldering and welding
2. Parts cleaning and degreasing at work stations with lids closed when not in use
3. Storage tanks <550 gallons
4. Non-HAP inorganic substance storage tanks >550 gallons
5. No. 2 fuel oil storage tanks >550 gallons
6. Laboratory equipment used exclusively for chemical or physical analyses
7. Vehicle refueling operations
8. Fire and safety equipment
9. Turbine vapor extractor
10. Covered belt conveyors transferring wet material
11. Sand blasting and grit blasting where temporary total enclosures are used to contain particulate
12. Equipment used for steam cleaning
13. Vacuum pumps used for steam cleaning
14. Equipment used exclusively for space heating, excluding boilers
15. Surface coatings operations utilizing 6.0 gallons per day or less, averaged monthly, of coatings containing greater than 5.0 percent VOC, by volume
16. Surface coating operations utilizing only coatings containing 5.0 percent or less VOCs, by volume
17. Degreasing units using heavier-than-air vapors exclusively, except any unit using or emitting any substance classified as a hazardous air pollutant

**Friday, Barbara**

---

**To:** Byron Burrows; jdellwein@tecoenergy.com; 'tdavis@ectinc.com';  
Forney.Kathleen@epamail.epa.gov; Nasca, Mara

**Cc:** Cascio, Tom

**Subject:** DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company  
- Polk Power Station

**Attachments:** Unregulated 2008.pdf; Appendix GG - NSPS Subpart GG Requirements for Gas Turbines.pdf;  
DraftandProposedNoticeofIntent2008.pdf; Draft-Proposed Permit 2008.pdf; History 2008.pdf;  
Insignificant 2008.pdf; Public Notice Draft and Proposed 2008.pdf; Statement of Basis  
2008.pdf; Table 1 2008.pdf; Table 2 2008.pdf

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Thank you,

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7/1/2008

## Friday, Barbara

---

**From:** System Administrator  
**To:** Nasca, Mara  
**Sent:** Tuesday, July 01, 2008 11:23 AM  
**Subject:** Delivered: DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station

### Your message

**To:** 'Byron Burrows'; 'jdellwein@tecoenergy.com'; 'tdavis@ectinc.com'; 'Forney.Kathleen@epamail.epa.gov'; Nasca, Mara  
**Cc:** Cascio, Tom  
**Subject:** DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station  
**Sent:** 7/1/2008 11:23 AM

was delivered to the following recipient(s):

Nasca, Mara on 7/1/2008 11:23 AM

## Friday, Barbara

---

**From:** System Administrator  
**To:** Cascio, Tom  
**Sent:** Tuesday, July 01, 2008 11:23 AM  
**Subject:** Delivered:DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station

### Your message

**To:** 'Byron Burrows'; 'jdellwein@tecoenergy.com'; 'tdavis@ectinc.com'; 'Forney.Kathleen@epamail.epa.gov'; Nasca, Mara  
**Cc:** Cascio, Tom  
**Subject:** DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station  
**Sent:** 7/1/2008 11:23 AM

was delivered to the following recipient(s):

Cascio, Tom on 7/1/2008 11:23 AM

## Friday, Barbara

---

**From:** Cascio, Tom  
**To:** Friday, Barbara  
**Sent:** Tuesday, July 01, 2008 11:48 AM  
**Subject:** Read: DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station

Your message

**To:** 'Byron Burrows'; 'jdellwein@tecoenergy.com'; 'tdavis@ectinc.com'; 'Forney.Kathleen@epamail.epa.gov'; Nasca, Mara  
**Cc:** Cascio, Tom  
**Subject:** DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station  
**Sent:** 7/1/2008 11:23 AM

was read on 7/1/2008 11:48 AM.



## Friday, Barbara

---

**From:** Exchange Administrator  
**Sent:** Tuesday, July 01, 2008 11:26 AM  
**To:** Friday, Barbara  
**Subject:** Delivery Status Notification (Relay)

**Attachments:** ATT313794.txt; DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station



ATT313794.txt  
(283 B)



DRAFT/PROPOSED  
Title V Permit ...

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.

tdavis@ectinc.com

## Friday, Barbara

---

**From:** Mail Delivery System [MAILER-DAEMON@mseive01.rtp.epa.gov]  
**Sent:** Tuesday, July 01, 2008 11:28 AM  
**To:** Friday, Barbara  
**Subject:** Successful Mail Delivery Report

**Attachments:** Delivery report; Message Headers



Delivery report.txt  
(499 B)

Message  
Headers.txt (2 KB)

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 486A4CE3\_13368\_3005\_8 3DB204443B

## Friday, Barbara

---

**From:** Forney.Kathleen@epamail.epa.gov  
**Sent:** Wednesday, July 16, 2008 10:57 AM  
**To:** Friday, Barbara  
**Subject:** Re: DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station

thanks

-----  
Katy R. Forney  
Air Permits Section  
EPA - Region 4  
61 Forsyth St., SW  
Atlanta, GA 30303

Phone: 404-562-9130  
Fax: 404-562-9019

"Friday,  
Barbara"  
<Barbara.Friday@  
dep.state.fl.us>

07/01/2008 11:23  
AM

"Byron Burrows"  
<btburrows@tecoenergy.com>,  
<jdellwein@tecoenergy.com>,  
<tdavis@ectinc.com>, Kathleen  
Forney/R4/USEPA/US@EPA, "Nasca,  
Mara"  
<Mara.Nasca@dep.state.fl.us>

To

cc

"Cascio, Tom"  
<Tom.Cascio@dep.state.fl.us>  
Subject  
DRAFT/PROPOSED Title V Permit  
Revision No.: 1050233-022-AV -  
Tampa Electric Company - Polk  
Power Station

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---

**From:** Joshua Ellwein [jdellwein@tecoenergy.com]  
**Sent:** Tuesday, July 01, 2008 11:34 AM  
**To:** Friday, Barbara  
**Subject:** Re: DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power St

Joshua D. Ellwein, P.E.  
Principal Engineer, Air Programs

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

813.228.4433 (office)  
813.695.1692 (mobile)  
813.228.1308 (fax)  
jdellwein@tecoenergy.com

>>> "Friday, Barbara" <Barbara.Friday@dep.state.fl.us> 07/01/2008 11:23  
>>> AM >>>

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<<http://www.adobe.com/products/acrobat/readstep.html>> > .

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---

**From:** Byron Burrows [btburrows@tecoenergy.com]  
**Sent:** Tuesday, July 01, 2008 11:44 AM  
**To:** Friday, Barbara  
**Subject:** Re: DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power St

Received. Thanks!

>>> "Friday, Barbara" <Barbara.Friday@dep.state.fl.us> 07/01/08 11:23 AM  
>>> >>>

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---

**From:** Tom Davis [tdavis@ectinc.com]  
**Sent:** Tuesday, July 01, 2008 11:41 AM  
**To:** Friday, Barbara  
**Subject:** RE: DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station

---

From: Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]  
Sent: Tuesday, July 01, 2008 11:23 AM  
To: Byron Burrows; jdellwein@tecoenergy.com; tdavis@ectinc.com;  
Forney.Kathleen@epamail.epa.gov; Nasca, Mara  
Cc: Cascio, Tom  
Subject: DRAFT/PROPOSED Title V Permit Revision No.: 1050233-022-AV - Tampa Electric Company - Polk Power Station

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<<http://www.adobe.com/products/acrobat/readstep.html>> > .

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