

### 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

#### PERMITTEE:

Tampa Electric Company P.O. Box 111 Tampa, FL 33601

Authorized Representative:
Mark J. Hornick, General Manager

Permit No. 1050233-021-AC / PSD-FL-194H

Polk Power Station Facility ID No. 1050233

SIC No. 4911

Permit Expires: June 1, 2009

#### PROJECT AND LOCATION

This permit authorizes an increase in the petroleum coke to coal blend ratio that is allowed to be gasified at this facility from 60% / 40% to 85% / 15% and an increase in the allowable sulfur content of the blended fuel from 3.5% to 4.7% sulfur by weight. In order to better accommodate this change in fuel ratio, minor changes and enhancements will also be made to components of the sulfuric acid plant and the acid gas removal system which will result in an increase in the allowable production of sulfuric acid from 77,640 tons per year to 299 tons per day (109,135 tons per year). The resulting syngas will continue to be fired in the existing integrated gasification combined cycle (IGCC) system at the Polk Power Station, which is located at 9995 State Route 37 South in Polk County, Florida.

#### STATEMENT OF BASIS

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

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Joeseph Kahn, Director

Division of Air Resource Management

Vuehaus for 6/20/08

(Date)

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF FINAL PERMIT

In the Matter of an Application for Permit by:

Mr. Mark J. Hornick, General Manager Tampa Electric Company P.O. Box 111 Tampa, Florida 33601 Air Permit No. 1050233-021-AC / PSD-FL-194H
Polk Power Station
Polk County

Enclosed is Final Permit Number 1050233-021-AC / PSD-FL-194H. This permit authorizes an increase in the petroleum coke to coal blend ratio that is allowed to be gasified at this facility from 60% / 40% to 85% / 15% and an increase in the allowable sulfur content of the blended fuel from 3.5% to 4.7% sulfur by weight. In order to better accommodate this change in fuel ratio, minor changes and enhancements will also be made to components of the sulfuric acid plant and the acid gas removal system which will result in an increase in the allowable production of sulfuric acid from 77,640 tons per year to 299 tons per day (109,135 tons per year). The resulting syngas will continue to be fired in the existing integrated gasification combined cycle (IGCC) system at the Polk Power Station, which is located at 9995 State Route 37 South in Polk County, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief Bureau of Air Regulation

#### **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this <u>Notice of Final Permit</u> (including the Final Determination and the Final Permit) was sent by e-mail with return receipt requested before the close of business on  $\omega/\partial \omega/\partial \delta$  to the persons listed:

Mr. Mark Hornick, TECO (MJHORNICK@TECOENERGY.COM)

Mr. Joshua Ellwein, P.E., TECO (JDELLWEIN@TECOENERGY.COM)

Mr. Byron Burrows, TECO (BTBURROWS@TECOENERGY.COM

Ms. Mara Nasca, SWD Office (MARA.NASCA@DEP.STATE.FL.US)

Ms. Katy Forney, EPA Region 4 (FORNEY.KATHLEEN@EPA.GOV)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby asknowledged.

(10-10)

# Florida Department of Environmental Protection

TO:

Joseph Kahn

THRU:

Trina Vielhauer

Jeff Koerne

FROM:

Jonathan Holtom

DATE:

June 25, 2008

SUBJECT:

Project No. 1050233-021-AC, Final Permit Tampa Electric Company, Polk Power Station

85% Petroleum Coke / 15% Coal Blend Request

Attached for your approval and signature is a final construction permit for Tampa Electric Company's, Polk Power Station.

This permit authorizes an increase in the petroleum coke to coal blend ratio that is allowed to be gasified at this facility from 60% / 40% to 85% / 15% and an increase in the allowable sulfur content of the blended fuel from 3.5% to 4.7% sulfur by weight. Minor changes and enhancements will also be made to components of the sulfuric acid plant and the acid gas removal system which will result in an increase in the allowable production of sulfuric acid from 77,640 tons per year to 299 tons per day (109,135 tons per year). The resulting syngas will continue to be fired in the existing integrated gasification combined cycle (IGCC) system. The proposed work will be conducted at the Polk Power Station, which is located in Polk County, Florida.

The Public Notice requirements were met on June 9 by publishing in <u>The Ledger</u> (Polk County). No comments were received from the public, but minor comments were received from the applicant, in response to this Public Notice. No petitions were filed for an Administrative Hearing.

I recommend your approval and signature.

Attachments

TLV/jk/jh

#### FINAL DETERMINATION

#### **PERMITTEE**

Tampa Electric Company Polk Power Station P.O. Box 111 Tampa, FL 33601

#### PERMITTING AUTHORITY

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

#### **PROJECT**

Air Permit No. 1050233-021-AC / PSD-FL-194H Polk Power Station

The purpose of this air construction permit revision project is to grant the authority to gasify a coal/petroleum coke blend with up to 85% petroleum coke with a maximum content of 4.7% sulfur, by weight. The resulting syngas will be fired in the existing integrated gasification combined cycle (IGCC) system. The higher sulfur content of the gasified fuel stock leads to a greater recovery of saleable sulfuric acid. To accommodate the increase in sulfuric acid recovery, minor modifications to the sulfuric acid plant and the methyl diethanol amine (MDEA) acid gas removal system are authorized in order to provide additional control stability. In addition, the applicant is also authorized to increase the sulfuric acid production rate to 299 tons per day of 100% sulfuric acid.

#### NOTICE AND PUBLICATION

The Department distributed an Intent to Issue Permit package on May 22, 2008. The applicant published the Public Notice of Intent to Issue in <u>The Ledger</u> (Polk County) on June 9, 2008. The Department received the proof of publication on June 17<sup>th</sup>.

#### COMMENTS

On June 18, 2008, the Department received comments from the applicant. The following summarizes the comments and the Department's response.

- 1. In the Technical Evaluation on page 3, line 5 of the last paragraph should read "No changes are proposed for the Unit 1 gasification or combustion turbine other than the use of 85 percent petcoke and increase in the solid fuel sulfur content up to 4.7% by weight."
  - *Response*: The suggestion is noted, but no change is necessary since the Technical Evaluation is the basis for the draft permit and is not typically reissued with the final permit.
- 2. In the Technical Evaluation on page 6, 1<sup>st</sup> paragraph, lines 3-5, regarding the statement: "...when considering the fact that the syngas produced after removing more of the sulfur compounds will likely have a higher heat content than the current syngas." The higher heat content value of the syngas composition will not change as a result of this construction project. Small variances of the heat content value will continue to occur due to the dynamic nature of the process itself. As seen in the heat content value analysis of the syngas, the components with the greatest contribution to the gross heating value of the syngas are hydrogen (H<sub>2</sub>) and carbon monoxide (CO), which combined are greater than 99% of total contribution. The amount of sulfur removed from the syngas prior to its combustion in the CT is not related to the higher heat content value of the syngas. This is especially true due to the fact the sulfur content of the syngas is relatively the same preversus post-construction activities. This was demonstrated in the trial burns with sulfur related emissions having a net increase less than the PSD "significant increase" threshold.

#### FINAL DETERMINATION

Response: The comment is noted.

3. In the facility description, it should be noted that Units 4 and 5 have commenced operation.

Response: The paragraph is changed as follows:

The Polk Power Station is an existing electrical generating plant consisting of the following equipment: a nominal 260 megawatt (MW) combined cycle combustion turbine (Unit 1), a solid fuel handling system, a solid fuel gasification plant, a sulfuric acid plant, an auxiliary boiler, and two four nominal 165 MW simple cycle gas turbines (Units 2 and 3) (Units 2, 3, 4 and 5). Two additional nominal 165 MW simple cycle gas turbines (Units 4 and 5) have been permitted, but are not yet in operation. The combined cycle combustion turbine, solid fuel handling system, solid fuel gasification plant, and sulfuric acid plant form an integrated gasification combined cycle (IGCC) system. Currently, the IGCC system fires synthesis gas (syngas) in the combined cycle combustion turbine produced from gasifying a blend of coal/petroleum coke with up to 60% petroleum coke and a maximum sulfur content of 3.5% by weight.

4. In the 2<sup>nd</sup> paragraph of the facility description, the reference to the acid gas removal plant should be changed to acid gas removal system.

Response: The requested change has been made.

5. In Condition 2.a., the sentence should read: "The sulfuric acid plant compressor will be modified by performing one *or more* of the following options:"

Response: The requested change has been made.

6. In Condition 2.a., the 5<sup>th</sup> bullet "Installing an oxygen injection quill in the decomposition furnace air inlet duct" should be deleted from this condition, as it is part of Condition 2.b.

Response: The requested change has been made.

7. In Condition 2.b., the sentence should read: "The decomposition furnace air intake system will be modified to decrease the pressure drop by performing one *or more* of the following options:"

Response: The requested change has been made.

8. In Condition 2.b., the 4<sup>th</sup> bullet should read "Installing an oxygen injection quill *in the decomposition furnace* air inlet duct."

Response: The requested change has been made.

9. In Condition 2.c., the sentence should read: "The O<sub>2</sub> supply line and/or control valve leading to the decomposition furnace will be modified by performing one *or more* of the following options:"

Response: The requested change has been made.

10. The last sentence of Condition 5. should read: "Compliance with this limit shall be demonstrated through the use of a continuous flow *and composition (purity)* monitor located between the sulfuric acid plant and the sulfuric acid storage tank."

Response: The requested change has been made.

11. With regard to the initial testing schedule in Condition 6., PPS anticipates incorporating a number of the upgrades to the sulfuric acid plant and the MDEA acid gas removal system as immediately as possible. Once these up grades have been completed, PPS will incrementally increase the petcoke content, first to ~70% and stabilize the process for a period of approximately 4-6 weeks. After which, another step up in petcoke content to ~78% is anticipated. Once the engineering controls are stabilized, the system will be evaluated. If at that time it is deemed additional controls or upgrades (e.g. compressor motor size increase) are needed, these changes can not be made until a major outage which would not occur until the spring or summer of 2009. If this is the case, PPS will request an extension of the permit expiration date in order to accommodate the new

#### FINAL DETERMINATION

schedule. Additionally, PPS will conduct compliance tests at the maximum petcoke content achievable and submit the test results to the appropriate compliance authorities. Once all upgrades are complete and a "new" maximum production rate achieved, final compliance tests will be conducted and submitted to the department. This alternative scenario will result in the compliance demonstration(s) to be submitted in parts.

Response: This is acceptable within the requirements of Condition 6. No changes have been made to the permit as a result of this comment.

12. Regarding the requirements to test for VOC in Condition 7, an initial compliance stack test for VOC will be conducted. The current Title-V permit requires stack testing for VOC on Unit 1 at a frequency of "upon permit renewal". It is the opinion of PPS there should not be an annual stack testing requirement for VOC during the monitoring period and stack testing requirements should follow current Title-V permit requirements.

Response: The Department agrees. The annual VOC testing requirement has been changed to "at least once every five years prior to renewal of the Title V operation permit."

13. In Condition 15.b.3., PPS believes the number "63" is a typo and should be removed.

Response: The suggested deletion has been made.

#### CONCLUSION

The final action of the Department is to issue the permit with the minor revisions, corrections, and clarifications as described above.

#### **FACILITY AND PROJECT DESCRIPTION**

The Polk Power Station is an existing electrical generating plant consisting of the following equipment: a nominal 260 megawatt (MW) combined cycle combustion turbine (Unit 1), a solid fuel handling system, a solid fuel gasification plant, a sulfuric acid plant, an auxiliary boiler, and four nominal 165 MW simple cycle gas turbines (Units 2, 3, 4 and 5). The combined cycle combustion turbine, solid fuel handling system, solid fuel gasification plant, and sulfuric acid plant form an integrated gasification combined cycle (IGCC) system. Currently, the IGCC system fires synthesis gas (syngas) in the combined cycle combustion turbine produced from gasifying a blend of coal/petroleum coke with up to 60% petroleum coke and a maximum sulfur content of 3.5% by weight.

This permit authorizes an increase of the blend ratio of petroleum coke/coal that can be gasified to an allowable ratio of 85% petroleum coke to 15% coal, with a new maximum sulfur content of up to 4.7% by weight. The resulting syngas will continue to be fired in the existing combustion turbine. This permit also recognizes and authorizes the minor upgrades and/or additions of component equipment at the sulfuric acid plant and the methyl diethanol amine (MDEA) acid gas removal system that are outlined in the technical evaluation, along with an increase in the allowable sulfuric acid production rate of up to 299 tons per day of 100% sulfuric acid. This permit does not authorize any other increases in the allowable permitted capacities or pollutant emissions limits for any of the permitted emissions units. Except for the conditions listed below, the plant must continue to comply with all other existing permit restrictions. The following existing emissions units are affected by this project.

, ID	Emission Unit Description		
001	Unit 1 - Integrated gasification combined cycle (IGCC) combustion turbine rated at 260 MW		
004	Sulfuric Acid Plant		
005	Solid Fuel Handling System		
006	Solid Fuel Gasification Plant		

#### REGULATORY CLASSIFICATION

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

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

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

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

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

- 1. <u>Permitting Authority</u>: The Bureau of Air Regulation of the Florida Department of Environmental Protection is the Permitting Authority for this facility. The Bureau of Air Regulation's mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.
- 2. <u>Compliance Authority</u>: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
- 3. <u>Appendices</u>: The following Appendices are attached as part of this permit: Appendix A (Citation Format); Appendix B (General Conditions); and, Appendix C (Common Conditions).

#### 4. Source Obligation:

- a. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
- b. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

- 5. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40, Part 60 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
- 6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
- 7. <u>Title V Permit</u>: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions units. The permittee shall apply for a Title V operation permit (revision) at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

#### A. Combustion Turbine Unit 1, Sulfuric Acid Plant, and Solid Fuel Gasification Plant

This section of the permit addresses the following emissions units.

ID	Emission Unit Description
001	Unit 1 - Integrated gasification combined cycle (IGCC) combustion turbine rated at 260 MW
004	Sulfuric Acid Plant
005	Solid Fuel Handling System
006	Solid Fuel Gasification Plant

#### PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for these emissions units. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulations. [Rule 62-4.070, F.A.C.]

#### **EQUIPMENT**

- 2. Acid Gas Removal Systems: The permittee is authorized to install/replace component equipment and/or upgrade the valves and associated equipment at the sulfuric acid plant and the acid gas removal plant as needed to return the machines' controls to a normal operating range (70% or 80% output) in order to accommodate the gasification and cleansing of the higher sulfur fuel. Possible changes include the following:
  - a. The sulfuric acid plant compressor will be modified by performing one or more of the following options:
    - Changing the compressor gear box ratio.
    - Increasing the compressor wheel size.
    - Installing a booster compressor.
    - Installing a parallel compressor.
    - Changing the compressor motor size.
  - b. The decomposition furnace air intake system will be modified to decrease the pressure drop by performing one or more of the following options:
    - Modifying the existing burner.
    - Replacing the existing burner.
    - Modifying the air inlet duct.
    - Installing an oxygen injection quill in the decomposition furnace air inlet duct.
  - c. The O<sub>2</sub> supply line and/or control valve leading to the decomposition furnace will be modified by performing one or more of the following options:
    - Modifying the O<sub>2</sub> piping to reduce the pressure drop.
    - Increasing the size of the O<sub>2</sub> control valve.
  - d. The replacement of a control valve on the existing MDEA chiller.
  - e. The installation of an additional MDEA chiller.
  - f. The installation of equipment and provisions for a more consistent foam-inhibiting additive system to the circulating MDEA solvent. This will be accomplished by either adding another carbon filter bed

#### A. Combustion Turbine Unit 1, Sulfuric Acid Plant, and Solid Fuel Gasification Plant

upstream of the heat stable salt removal system or by rerouting the piping so the existing carbon filter will be positioned immediately upstream of the heat stable salt removal system.

[Application No. 1050233-021-AC]

#### **EMISSIONS AND PERFORMANCE REQUIREMENTS**

- 3. <u>Authorized Fuel</u>: The permittee is authorized to gasify and fire a blend of petroleum coke/coal containing up to 85% petroleum coke, by weight. At the current permitted capacity for the solid fuel gasification system of 2,325 tons per day of solid fuel gasified, the allowable weight of petcoke increases from 1,395 tons per day to 1,976 tons per day. [Application No. 1050233-021-AC and Rule 62-210.200(PTE), F.A.C.]
- 4. <u>Sulfur Content</u>: The maximum sulfur content of the petroleum coke/coal blend shall not exceed 4.7% by weight. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]
- 5. Sulfuric Acid Production: By this permit, the maximum plant production limit is established as 299 tons per day of 100% sulfuric acid. This limit replaces the current permitted capacity of 77, 640 tons per year listed in Specific Condition C.1. of permit No. 1050233-016-AV and is equivalent to 109,135 tons per year. Compliance with this limit shall be demonstrated through the use of a continuous flow and composition (purity) monitor located between the sulfuric acid plant and the sulfuric acid storage tank. [Application No. 1050233-021-AC]

#### EMISSIONS PERFORMANCE TESTING

- 6. <u>Initial Testing</u>: Within 60 days after achieving the maximum production rate at which the units will be operated, but not later than 180 days after completing the upgrades to the sulfuric acid plant and the MDEA acid gas removal system, the testing listed below shall be performed. Emissions testing shall be conducted while gasifying and firing a coal/petroleum coke blend containing the highest blended fuel ratio at which that the plant wishes to be allowed to operate (up to 85% petroleum coke / 15% coal and 4.7% sulfur, by weight).
  - a. Combustion Turbine Unit 1.
    - 1. The permittee shall conduct stack tests on combustion turbine Unit 1 (EU-001) to demonstrate continued compliance with the permitted emissions limits for carbon monoxide (CO), Volatile Organic Compounds (VOC), sulfuric acid mist (SAM) and visible emissions.
    - 2. Emissions of nitrogen oxides (NO<sub>X</sub>) and sulfur dioxide (SO<sub>2</sub>) shall be determined continuously with data from the existing continuous emissions monitoring systems (CEMS).
  - b. Sulfuric Acid Plant.

The permittee shall conduct performance tests on the sulfuric acid plant (EU-004) to demonstrate continued compliance with the permitted emissions limits for SAM, SO<sub>2</sub> and visible emissions.

[Rules 62-4.070(3) and 62-297.310(7), F.A.C.]

- 7. Subsequent Testing: Emissions testing shall be conducted while gasifying and firing a coal/petroleum coke blend containing the highest blended fuel ratio at which that the plant wishes to be allowed to operate (up to 85% petroleum coke / 15% coal and 4.7% sulfur, by weight).
  - a. Combustion Turbine Unit 1.
    - 1. The permittee shall conduct stack tests annually on combustion turbine Unit 1 (EU-001) to demonstrate continued compliance with the permitted emissions limits for carbon monoxide (CO) and visible emissions.

#### A. Combustion Turbine Unit 1, Sulfuric Acid Plant, and Solid Fuel Gasification Plant

- 2. The permittee shall conduct stack tests semi-annually on combustion turbine Unit 1 (EU-001) to demonstrate continued compliance with the permitted emissions limits for sulfuric acid mist (SAM). The semi-annual testing shall be performed for a period of five years following the increase in the petcoke blend ratio and shall consist of at least six test runs
- 3. Emissions of nitrogen oxides (NO<sub>X</sub>) and sulfur dioxide (SO<sub>2</sub>) shall be determined continuously with data from the existing continuous emissions monitoring systems (CEMS).
- 4. At least once every five years prior to renewal of the Title V operation permit, the permittee shall conduct performance tests on combustion turbine Unit 1 (EU-001) to demonstrate continued compliance with the permitted emissions limits for VOC.

#### b. Sulfuric Acid Plant.

At least once every five years prior to renewal of the Title V operation permit, the permittee shall conduct performance tests on the sulfuric acid plant (EU-004) to demonstrate continued compliance with the permitted emissions limits for SAM, SO<sub>2</sub> and visible emissions.

[Rules 62-4.070(3) and 62-297.310(7), F.A.C.]

- 8. <u>Test Notification</u>: At least 15 days prior to emissions testing, the permittee shall notify the Compliance Authority of the scheduled tests in writing. Notifications shall be provided by letter, fax, or email. [Rules 62-4.070(3) and 62-297.310(7)(a)9, F.A.C.]
- 9. <u>Fuel Composition</u>: The composition of coal, petroleum coke, and blended fuels gasified (including sulfur contents) shall be determined by proximate and ultimate analyses sampling of each unique fuel blend prior to gasification by either the owner/operator or the vendor. [Rules 62-4.070(3), 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]
- 10. <u>Test Methods</u>: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
6C	Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental)
8, 8A, 8B, or 320	Determination of Sulfuric Acid Mist
9	Visible Emissions
10	Determination of Carbon Monoxide Emissions from Stationary Sources
18	Measurement of Gaseous Organic Compound Emissions

Tests shall also be conducted in accordance with applicable requirements specified in Section 4, Appendix C of this permit. The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [Rules 62-4.070(3), 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

#### RECORDS AND REPORTS

11. <u>Equipment Upgrade Reports</u>: Prior to performing the upgrades, submit a report detailing all of the equipment changes that will be made to the sulfuric acid plant and MDEA acid gas removal system. Within

#### A. Combustion Turbine Unit 1, Sulfuric Acid Plant, and Solid Fuel Gasification Plant

- 45 days of completing the changes, submit a report confirming that the upgrades have been completed. These reports shall be submitted to both the permitting authority and the compliance authority. [Rule 62-4.070(3), F.A.C.]
- 12. <u>SAM Emissions Monitor Report</u>: Prior to the expiration date of this permit, the permittee shall submit a report detailing the potential options for continuous SAM emissions monitoring. Upon installation of an approved SAM CEMS or other approved monitoring protocol, the semi-annual SAM compliance tests required in Specific Condition 7 may be discontinued. [Rule 62-4.070(3), F.A.C. and Applicant Request]
- 13. <u>Stack Test Reports</u>: The permittee shall prepare and submit stack test reports within 45 days of completing the required emissions tests. All reports shall be submitted to the Compliance Authority. Initial stack test reports shall also be submitted to the Permitting Authority. [Rule 62-297.310(8), F.A.C.]
- 14. PSD Applicability Monitoring and Reporting Requirements:
  - a. The permittee shall monitor the emissions of SO<sub>2</sub> and SAM; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, beginning with the first full calendar year following the year in which the change occurred. Emissions shall be computed in accordance with Rule 62-210.370, F.A.C.
  - b. The permittee shall report to the Department within 60 days after the end of each year during which records must be generated under subparagraph 62-212.300(1)(e)1., F.A.C., setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:
    - 1. The name, address and telephone number of the owner or operator of the major stationary source;
    - 2. The annual emissions as calculated pursuant to subparagraph 62-212.300(1)(e)1., F.A.C.;
    - 3. If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and,
    - 4. Any other information that the owner or operator wishes to include in the report.
  - c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1. and 2., F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

[Rule 62-212.300(1)(e), F.A.C.]

- 15. <u>Computation of Emissions</u>: The owner or operator shall compute emissions in accordance with the requirements set forth below:
  - a. Basic Approach. The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
    - 1. If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the

#### A. Combustion Turbine Unit 1, Sulfuric Acid Plant, and Solid Fuel Gasification Plant

pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.

- 2. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C, but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- 3. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- b. Continuous Emissions Monitoring System (CEMS).
  - 1. An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
    - (a) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or
    - (b) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
  - 2. Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
    - (a) A calibrated flowmeter that records data on a continuous basis, if available; or
    - (b) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
  - 3. The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- Mass Balance Calculations.
  - 1. An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
    - (a) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and
    - (b) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
  - 2. Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest

#### A. Combustion Turbine Unit 1, Sulfuric Acid Plant, and Solid Fuel Gasification Plant

value of the range to compute the emissions, unless the owner or operator demonstrates using sitespecific data that another content within the range is more accurate.

3. In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.

#### d. Emission Factors.

- 1. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
  - a. If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
  - b. Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
  - c. The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
- 2. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- e. Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
- f. Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- g. Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- h. Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(2), F.A.C.]

#### **SECTION 4. APPENDICES**

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Appendix A. Citation Formats

Appendix B. General Conditions

Appendix C. Common Conditions

#### SECTION 4. APPENDIX A)

#### CITATION FORMATS

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

#### REFERENCES TO PREVIOUS PERMITTING ACTIONS

#### Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit

"AO" identifies the permit as an Air Operation Permit "123456" identifies the specific permit project number

#### New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located

"2222" represents the specific facility ID number

"001" identifies the specific permit project

"AC" identifies the permit as an air construction permit

"AF" identifies the permit as a minor federally enforceable state operation permit

"AO" identifies the permit as a minor source air operation permit

"AV" identifies the permit as a Title V Major Source Air Operation Permit

#### **PSD Permit Numbers**

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality

"FL" means that the permit was issued by the State of Florida

"317" identifies the specific permit project

#### **RULE CITATION FORMATS**

#### Florida Administrative Code (F.A.C.)

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

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

#### Code of Federal Regulations (CFR)

Example: [40 CRF 60.7]

Means: Title 40, Part 60, Section 7

#### **SECTION 4. APPENDIX B**

#### GENERAL CONDITIONS

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

- 1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- 4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

#### SECTION 4. APPENDIX B

#### GENERAL CONDITIONS

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- 9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- 11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (Not Applicable);
  - b. Determination of Prevention of Significant Deterioration (Not Applicable); and
  - c. Compliance with New Source Performance Standards (Not Applicable).
- 14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses:
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
- 15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

#### SECTION 4. APPENDIX C

#### **COMMON CONDITIONS**

Unless otherwise specified in applicable permits, the following conditions apply to all emissions units and activities at the facility.

#### **EMISSIONS AND CONTROLS**

- 1. 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 permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
- 2. <u>Circumvention</u>: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
- 3. <u>Unconfined Particulate Emissions</u>: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

#### **TESTING REQUIREMENTS**

- 4. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
- 5. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
- 6. <u>Calculation of Emission Rate</u>: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
- 7. <u>Test Procedures</u>: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
  - a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation

#### SECTION 4. APPENDIX C

#### **COMMON CONDITIONS**

- period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
- b. *Minimum Sample Volume*. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
- c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

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

#### 8. <u>Determination of Process Variables</u>

- 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.]

- 9. Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. For purposes of the temporary trial burn, the permittee may install temporary stack sampling facilities in accordance with Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]
- 10. <u>Test Notification</u>: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
- 11. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
- 12. <u>Test Reports</u>: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
  - 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.

#### **COMMON CONDITIONS**

- 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
- 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
- 20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions. . ..... unit plus the test result in the same form and unit of measure.
- 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

#### **RECORDS AND REPORTS**

- 13. <u>Records Retention</u>: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
- 14. <u>Annual Operating Report</u>: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

7-05-0233-021

#### **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this <u>Notice of Final Permit</u> (including the Final Determination and the Final Permit) was sent by e-mail with return receipt requested before the close of business on 40.34 c b to the persons listed:

Mr. Mark Hornick, TECO (MJHORNICK@TECOENERGY.COM)

Mr. Joshua Ellwein, P.E., TECO (JDELLWEIN@TECOENERGY.COM)

Mr. Byron Burrows, TECO (BTBURROWS (WTECOENERGY.COM

Ms. Mara Nasca, SWD Office (MARA NASCA@DEP.STATE.FL.US)

Ms. Katy Forney, EPA Region 4 (FORNEY.KATHLEEN@EPA.GOV)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby asknowledged.

#### Harvey, Mary

From: Byron Burrows [btburrows@tecoenergy.com]

**Sent:** Thursday, June 26, 2008 5:22 PM

To: Harvey, Mary

Subject: Re: Tampa Electric Company - 1050233-021-AC-FINAL -PSD-FL-194H

Received. Thanks! From BlackBerry Byron Burrows Mob: 813.230.3445

----Original Message----

From: "Harvey, Mary" <Mary.Harvey@dep.state.fl.us>

Cc: Elizabeth (AIR) Walker < Elizabeth. Walker@dep.state.fl.us>

Cc: Jonathan Holtom < Jonathan. Holtom@dep.state.fl.us>

To: Mara Nasca <Mara.Nasca@dep.state.fl.us>

Cc: Victoria Gibson <Victoria.Gibson@dep.state.fl.us>
To: EPA Region 4 Ms. Katy Forney <FORNEY.KATHLEEN@EPA.GOV>

To: Mark Hornick <mjhornick@tecoenergy.com>
To: Joshua Ellwein <jdellwein@tecoenergy.com>
To: Byron Burrows <btburrows@tecoenergy.com>

Sent: 6/26/2008 2:52:54 PM

Subject: Tampa Electric Company - 1050233-021-AC-FINAL - PSD-FL-194H

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document( $\dot{s}$ ); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document( $\dot{s}$ ).

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e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

The Department of Environmental

Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and

improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of

service you received. Copy the url below to a web browser to complete the DEP

survey:

http://survey.dep.state.fl.us/?refemail=Mary.Harvey@dep.state.fl.us

#### Harvey, Mary

From:

Nasca, Mara

Sent:

Thursday, June 26, 2008 2:59 PM

To:

Harvey, Mary

Subject:

Re: Tampa Électric Company - 1050233-021-AC-FINAL - PSD-FL-194H

Thanks Mary....have a good evening

-----

Sent from my BlackBerry Wireless Handheld

---- Original Message -----

From: Harvey, Mary

To: 'Mr. Mark Hornick, TECO' <MJHORNICK@TECOENERGY.COM>; 'Mr. Joshua Ellwein, P.E., TECO' <JDELLWEIN@TECOENERGY.COM>; 'Mr. Byron Burrows, TECO' <BTBURROWS@TECOENERGY.COM>; Nasca,

Mara; 'Ms. Katy Forney, EPA Region 4' <FORNEY.KATHLEEN@EPA.GOV> Cc: Holtom, Jonathan; Walker, Elizabeth (AIR); Gibson, Victoria

Sent: Thu Jun 26 14:52:54 2008

Subject: Tampa Electric Company - 1050233-021-AC-FINAL - PSD-FL-194H

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

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Thank you,

DEP, Bureau of Air Regulation

#### Harvey, Mary

From:

Mark Hornick [mjhornick@tecoenergy.com]

Sent:

Friday, June 27, 2008 7:23 AM

To:

Harvey, Mary

Subject:

Re: Tampa Electric Company - 1050233-021-AC-FINAL -PSD-FL-194H

received subject document

Mark Hornick General Manager Polk Power Station Tampa Electric Company 863 428-5988 (office) 813 376 6643 (cell) mjhornick@tecoenergy.com

>>> "Harvey, Mary" <Mary.Harvey@dep.state.fl.us> 06/26/2008 2:52:54 PM >>>

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

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Thank you,

DEP, Bureau of Air Regulation

The Department of Environmental

Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and

improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of

service you received. Copy the url below to a web browser to complete the DEP

survev:

http://survey.dep.state.fl.us/?refemail=Mary.Harvey@dep.state.fl.us Thank you in advance for completing the survey.