

# Department of Environmental Protection

Jeb Bush 2600 Blair Stone Road
Governor Tallahassee, Florida 32399-2400

David B. Struhs Secretary

## PROPOSED Permit Electronic Posting Courtesy Notification

Gulf Power Company
Lansing Smith Electric Generating Plant
Facility ID No.: 0050014
Bay County

Initial Title V Air Operation Permit Revision PROPOSED Permit No.: 0050014-006-AV

The electronic version of the PROPOSED permit was posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review on April 16, 2003.

USEPA's review period ends on the 45th day after the permit posting date. Day 45 is May 30, 2003. If an objection (veto) is received from USEPA, the permitting authority will provide a copy of the objection to the applicant.

Provided an objection is not received from USEPA, the PROPOSED permit will become a FINAL permit by operation of law on the 55th day after the permit posting date. Day 55 is June 9, 2003.

"More Protection, Less Process"



# Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

April 16, 2003

Mr. Gene L. Ussery, Jr. V.P. Power Generation Gulf Power Company One Energy Place Pensacola, Florida 32520-0100

Re: Title V Air Operation Permit Revision

PROPOSED Permit Project No.: 0050014-006-AV

Revision of Title V Air Operation Permit No.: 0050014-001-AV

Lansing Smith Electric Generating Plant

Dear Mr. Ussery:

One copy of the "<u>PROPOSED PERMIT DETERMINATION</u>" for the Gulf Power Company's Smith Electric Generating Plant, located at 4300 County Road, Bay County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit has become a PROPOSED permit.

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit is made by the USEPA within 45 days, the PROPOSED permit will become a FINAL permit no later than 55 days after the date on which the PROPOSED permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit, the FINAL permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact Jonathan Holtom, P.E. at 850/921-9531.

Sincerely, Zuna TV whaun

Trina Vielhauer, Chief Bureau of Air Regulation

TLV/jh Enclosures

E-mail copies furnished to:

Mr. G. Dwain Waters, Gulf Power Company

Mr. Gregory N. Terry, P.E.

Mr. Kevin White, P.E., DEP-NWD

Mr. Hamilton Oven, P.E., DEP-SCO

U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

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## PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0050014-006-AV

## I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" to Gulf Power Company for the Smith Electric Generating Plant, located at 4300 County Road, Bay County, was clerked on January 23, 2003. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was published in the Panama City News Herald on January 31, 2003. The DRAFT Title V Air Operation Permit revision was available for public inspection at the Northwest District office in Pensacola and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was received on February 5, 2003.

## II. Public Comment(s).

Comments were received from one respondent during the 30 (thirty)-day public comment period. The comments were not considered significant enough to reissue the DRAFT Title V Permit and require another Public Notice, therefore, the DRAFT Title V Operation Permit was changed. Listed below is each comment that was received and a corresponding response.

## A. E-mail from Mr. Dwain Waters, dated February 12, 2003 (R.O. Signed copy rec'd 3/12/03).

**Comment 1.** Specific Condition #A.0.: Gulf Power believes that this condition should be deleted since it was completed in the construction permit.

## **DEP Response 1:**

Agreed. Specific Condition #A.0. has been removed.

Comment 2. Specific Condition #A.0.: Gulf Power believes that GAM60 should be included under "other" as a method of operation. Gulf Power requested use of GAM 60 under a separate letter request in October, 2002.

## **DEP Response 2:**

The request to use GAM 60 is acceptable. Specific Condition A.3. is changed:

## FROM:

## A.3. Methods of Operation.

- a. <u>Fuels</u>. The fuels that are allowed to be burned in these boilers are coal and/or new No. 2 fuel oil and/or on-specification used oil (see specific condition A.36.). Fuel oil is only used for periods of start-up and as needed for flame stabilization. Also, on-site generated "oil contaminated soil" is periodically combusted for energy recovery purposes.
- b. Other. Supplemental injection of "sodium carbonate" (at a rate of up to 420 pounds per hour) as necessary to maintain visible emissions below the applicable standards.

[Rule 62-213.410, F.A.C.; and, Applicant's request in initial Title V permit application dated June 14, 1996, and in revised Title V permit application dated June 18, 1999.]

## TO:

## A.3. Methods of Operation.

a. <u>Fuels</u>. The fuels that are allowed to be burned in these boilers are coal and/or new No. 2 fuel oil and/or on-specification used oil (see specific condition A.36.). Fuel oil is only used for periods of start-up and as

needed for flame stabilization. Also, on-site generated "oil contaminated soil" is periodically combusted for energy recovery purposes.

## b. Other.

- 1. Supplemental injection of "sodium carbonate" (at a rate of up to 420 pounds per hour) as necessary to maintain visible emissions below the applicable standards.
- 2. Supplemental injection of "GAM 60" for purposes of maintaining boiler tube temperatures.

[Rule 62-213.410, F.A.C.; Applicant's request in initial Title V permit application dated June 14, 1996, and in revised Title V permit application dated June 18, 1999; and, Gulf Power letter dated July 15, 2002.]

**Comment 3.** Specific Condition #A.24.: Gulf Power requests the addition of "or approved by EPA" under fuel sampling and analysis methods.

## **DEP Response 3:**

Test methods must be adopted into our SIP in order for use to authorize their use. Once adopted, the test methods must then be written into a permit to allow their use by the facility. The ASTM methods listed in this condition reference an issuance year as part of the method number. The "or the latest edition" refers to the acceptance of a more recent version of an accepted test method, not a new test method. However, while reviewing this comment, it was discovered that the use of "or the latest edition" was mixed with the use of "or equivalent". As a result of this comment, Specific Condition A.24. has been changed:

#### FROM:

- **A.24.** Fuel Sampling and Analysis. The following fuel sampling and analysis protocol shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard in the event that the SO<sub>2</sub> continuous emissions monitor is not able to capture valid data:
  - a. Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, to analyze a representative sample of the blended fuel following each fuel delivery.
  - b. Determine and record the as-fired fuel sulfur content, percent by weight, for coal using ASTM D2013-72 and either ASTM D3177-75 or ASTM D4239-85, or the latest edition, to analyze a representative sample of the blended as-fired pulverized coal.
  - c. Determine and record the density (using ASTM D 1298-80, or equivalent) and the calorific heat value in Btu per pound (using ASTM D 240-76, or the latest edition) of the fuel oil combusted.
  - d. Determine and record the calorific heat value in Btu per pound of the blended, as-fired pulverized coal using ASTM D2013-72 and either ASTM D2015-77 or D3286-(latest version), or the latest edition.
  - e. Record daily the amount of each fuel fired, the density of the fuel oil, the heating value of each fuel fired, and the percent sulfur content, by weight, of each fuel fired.
  - f. Utilize the information in a., b., c., d. and e., above, to calculate the SO<sub>2</sub> emission rate to ensure compliance at all times.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

## TO:

- **A.24.** Fuel Sampling and Analysis. The following fuel sampling and analysis protocol shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard in the event that the SO<sub>2</sub> continuous emissions monitor is not able to capture valid data:
  - a. Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, to analyze a representative sample of the blended fuel following each fuel delivery.
  - b. Determine and record the as-fired fuel sulfur content, percent by weight, for coal using ASTM D2013-72 and either ASTM D3177-75 or ASTM D4239-85, or the latest edition, to analyze a representative sample of the blended as-fired pulverized coal.

- c. Determine and record the density (using ASTM D 1298-80, or the latest edition) and the calorific heat value in Btu per pound (using ASTM D 240-76, or the latest edition) of the fuel oil combusted.
- d. Determine and record the calorific heat value in Btu per pound of the blended, as-fired pulverized coal using ASTM D2013-72 and either ASTM D2015-77 or D3286-(latest version), or the latest editions.
- e. Record daily the amount of each fuel fired, the density of the fuel oil, the heating value of each fuel fired, and the percent sulfur content, by weight, of each fuel fired.
- f. Utilize the information in a., b., c., d. and e., above, to calculate the SO<sub>2</sub> emission rate to ensure compliance at all times.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

**Comment 4.** Specific Condition #A.36.e.: Gulf Power requests the addition of "or approved by EPA" under Testing after EPA Publication SW-846.

## **DEP Response 4:**

Specific Condition A.36.e. references test methods approved under EPA Publication SW-846. If EPA approves a different method under that publication, then you may use it. As a result of this comment, no changes have been made.

**Comment 5.** Specific Condition # B.12.: Gulf Power requests the addition of "or approved by EPA" in lieu of "or equivalent."

## **DEP Response 5:**

See **DEP Response 3.** As a result of this comment, Specific Condition **B.12.** has been changed:

## FROM:

**B.12**. Sulfur Content. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or equivalent. [Rules 62-213.440 and 62-297.440, F.A.C.]

## TO:

**B.12**. Sulfur Content. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition. [Rules 62-213.440 and 62-297.440, F.A.C.]

**Comment 6.** Specific Condition # C.5.: Gulf Power does not believe the manufacturer's curve needs updating annually after compliance testing unless tests are conducted at less than 90% capacity. The manufacturer's curve should not change relative to heat input vs. ambient temperature from its original submission.

## **DEP Response 6:**

The Department's compliance office in the Northwest District prefers to have the curves (showing the adjustments for the representative ambient conditions during the test) submitted with each test report. Also, the requirement to submit the curves is a condition of PSD permit number PSD-FL-269 (see condition 8.) As a result of this comment, no changes have been made.

Comment 7. Specific Condition # C.7. Gulf Power believes "only pipeline natural gas" should be changed to "natural gas" since these changes were made in the monitoring plan and previously accepted by FDEP Monitoring group and EPA Acid Rain.

## **DEP Response 7:**

The requested change is not necessary due to the Permitting Note following Specific Condition C.7. Please keep in mind that compliance with the Acid Rain definitions through required reporting to EPA is not necessarily the same as complying with the terms and conditions of the Title V permit. As a result of this comment, no changes have been made to the permit.

Comment 8. Specific Condition # C.15. Gulf Power accepts the condition with clarification that the standard being monitored is the NSPS standard of 100 ppm no greater than 2 hours in any 24 hours resulting from startup, shutdown or malfunction. Please clarify the standard.

## **DEP Response 8:**

Specific Condition C.15. is a direct quote of the Rule and applies to SIP limits. As such, it is an applicable requirement for the Title V permit. As a result of this comment, no changes have been made to the permit.

Comment 9. Specific Condition # C.16. Gulf Power accepts the condition with clarification that only preventable emissions greater than the NSPS limit of 100 ppm during startup, shutdown or malfunction are included in the 30 day rolling average complied by the NO<sub>X</sub> CEM system. In other words, excess emissions for 2 hours per 24-hour period greater than 100 ppm for startup, shutdown, and malfunction can be removed from the 30-day averaging for NO<sub>X</sub>.

## **DEP Response 9:**

Specific Condition C.16. is a direct quote of the Rule and applies to SIP limits. As such, it is an applicable requirement for the Title V permit. In addition, condition 26., of construction permit 0050014-002-AC, requires that preventable emissions during startup, shutdown or malfunction be included in the 30-day rolling NO<sub>X</sub> average. This applies to emissions in excess of the <u>permitted</u> (SIP) limit, not the NSPS limit. There is no provision here to exclude <u>any</u> "preventable" emissions from the 30-day rolling average. They must all be included. As a result of this comment, no changes have been made to the permit.

Comment 10. Specific Condition # C.22. Gulf Power believes this condition is for oil fired units and does not apply to Smith Unit 4 or 5. Gulf Power requests the condition be removed from the permit.

## **DEP Response 10:**

Specific Condition C.22. is an NSPS requirement that applies to gas turbines regulated by 40 CFR 60 Subpart GG. It applies to all fuels fired. While this condition is an applicable requirement, compliance with it is being met by the use of the Natural Gas Monitor Schedule contained in Specific Condition C.23. To clarify the issue, the following Permitting Note has been added after Specific Condition C.22.:

[Permitting Note: Compliance with Specific Condition C.22. is being met through the use of the Natural Gas Monitoring Schedule contained in Specific Condition C.23.]

Comment 11. Specific Condition # C.23 (b) & (d). Gulf Power requests references to "pipeline" natural gas be removed since Gulf Power has previously agreed to limit the use of natural gas under the approved monitoring plan by FDEP and EPA Acid Rain Division.

## **DEP Response 11:**

See **DEP Response** 7. As a result of this comment, no changes have been made to the permit.

Comment 12. Specific Condition # C. 31. Gulf Power requests references to "pipeline" natural gas be removed since Gulf Power has previously agreed to limit the use of natural gas under the approved monitoring plan by FDEP and EPA Acid Rain Division.

## **DEP Response 12:**

See **DEP Response** 7. As a result of this comment, no changes have been made to the permit.

**Comment 13.** Specific Condition # C.31. Gulf Power requests that "or other EPA approved methods" be added to this condition when referencing acceptable fuel sampling and analytical methods by ASTM.

## **DEP Response 13:**

Specific Condition C.31. is directly from the PSD permit. Adding the requested language could result in a conflict with the SIP-established condition. As a result of this comment, no changes have been made to the permit.

Comment 14. Specific Condition # C.35. Gulf Power believes item (a) should read EPA Method 7E or EPA Method 20, thus needing to delete item (d) as being in addition to item (a).

## **DEP Response 14:**

To more clearly reflect the intent of the PSD permit and the changes that were made to the PSD permit by letter dated February 6, 2002, Specific Condition C.35. is changed:

#### FROM:

- C.35. <u>Performance Test Methods</u>: When required, compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.
- (a) EPA Method 7E, "Determination of Nitrogen Oxide Emissions from Stationary Sources".
- (b) EPA Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".
- (c) **EPA Method 10**, "Determination of Carbon Monoxide Emissions from Stationary Sources". All CO tests shall be conducted concurrently with NO<sub>X</sub> emissions tests.
- (d) **EPA Method 20**, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines."
- (e) EPA Methods 18, 25 and/or 25A, "Determination of Volatile Organic Concentrations."

No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C.

[Rule 62-297.401, F.A.C.; and, 0050014-002-AC.]

## TO:

- C.35. <u>Performance Test Methods</u>: When required, compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.
- (a) EPA Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".
- (b) **EPA Method 10**, "Determination of Carbon Monoxide Emissions from Stationary Sources". (See Specific Condition **C.32**.)
- (c) **EPA Method 20**, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines" or **EPA Method 7E**, "Determination of Nitrogen Oxide Emissions from Stationary Sources".

Annual compliance with applicable NO<sub>X</sub> emissions standards shall also be demonstrated with valid data collected by the required CEM systems during required annual RATA at permitted capacity. Continuous compliance shall be demonstrated as specified in Specific Condition C.26.

(d) EPA Methods 18, 25 and/or 25A, "Determination of Volatile Organic Concentrations."

No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C.

[Rule 62-297.401, F.A.C.; and, 0050014-002-AC.]

Comment 15. Specific Condition # C.36. Gulf Power believes this item addresses fuel oil and is not applicable to operations at Smith Unit 4 & 5, thus should be deleted from the permit.

## **DEP Response 15:**

Specific Condition C.36. is an NSPS requirement that applies to gas turbines regulated by 40 CFR 60 Subpart GG. It applies to all fuels fired. As a result of this comment, no changes have been made to the permit.

**Comment 16.** Specific Condition # C. 37. Gulf Power doesn't understand the referenced to "only" and requests better explanation of this condition and how to comply.

## **DEP Response 16:**

The inclusion of the word "only" in Specific Condition C.37. appears to be a misprint. Because it does not appear in the language contained in 40 CFR 60.11(a), nor in the construction permit, it has been removed from the condition.

Comment 17. Specific Condition # C.38. Gulf Power doesn't understand the requirement to maintain records of each occurrence of startup, shutdown, malfunction, and CEMs monitoring downtime of equipment and how to comply.

## **DEP Response 17:**

Specific Condition C.38. contains general NSPS requirements pertaining to the conduction of Performance tests. It is suspected that this comment refers to Specific Condition C.53., which is a general NSPS condition that requires the operator to "...maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative." The Federal Rule does not specify how you should comply with it, but whatever the chosen method, sufficient records must be made and retained in order to satisfy all the reporting requirements contained in the permit (see Specific Conditions C.47. – C.60.)

**Comment 18.** Specific Condition # C.54. Gulf Power doesn't understand the requirement to which it must report for excess emissions or for which standard. Please clarify this condition.

## **DEP Response 18:**

Specific Condition C.54. is an NSPS reporting requirement. For emissions units-004 and -005, information reported pursuant to this condition would relate to the NSPS requirements contained in 40 CFR 60, Subpart GG.

In order to help readers of this permit better understand that these emissions units are subject to NSPS requirements independently of the SIP requirements, Specific Condition C.9. is changed:

## FROM:

C.9. The following table is a summary of the BACT determination and is followed by the applicable specific conditions. Values are corrected to 15 %  $O_2$  on a dry basis. These limits or their equivalent in terms of lb/hr or NSPS units, as well as the applicable averaging times, are followed by the applicable specific conditions.

Emission Unit	NO <sub>X</sub> <sup>(1)</sup>	CO BACT	SO <sub>2</sub> /SAM BACT	VOC BACT	PM/Visibility (% Opacity)	Technology and Comments
C.T.'s: With Duct	82.9 lb/hr	16 ppm @ 15% O <sub>2</sub>	2 gr/100 scf natural	4 ppm @ 15% O <sub>2</sub>	10 - gas	Dry Low NO <sub>X</sub> Combustors Natural Gas, Good
Burners			gas (3)	_		Combustion
Steam power Augmen- tation	113.2 lb/hr	23 ppm @ 15% O <sub>2</sub>	2 gr/100 scf natural gas (3)	6 ppm @ 15% O <sub>2</sub>	10 - gas	Unit limited to 1000 hours per year of operation
Cooling Tower					18.2 lb/hr <sup>(2)</sup>	Drift Eliminators

- (1) NO<sub>X</sub> limits not determined by BACT.
- (2) Listed for informational purposes only.
- (3) See Fuel Monitoring Schedule in Specific Condition C.33.

[Rules 62-212.400, 62-204.800(7)(b) (Subpart GG and Da), 62-210.200 (Definitions-Potential Emissions) F.A.C.]

## TO:

## **C.9.** Emissions Summary.

(a) The following table is a summary of the BACT determination and is followed by the applicable specific conditions. Values are corrected to 15 % O<sub>2</sub> on a dry basis. These limits or their equivalent in terms of lb/hr or NSPS units, as well as the applicable averaging times, are followed by the applicable specific conditions.

Emission	$NO_X^{(1)}$	СО	SO <sub>2</sub> /SAM	VOC	PM/Visibility	Technology and
Unit		BACT	BACT	BACT	(% Opacity)	Comments
C.T.'s:	82.9	16 ppm	2 gr/100	4 ppm	10 - gas	Dry Low NO <sub>X</sub>
With	lb/hr	@ 15% O <sub>2</sub>	scf	@ 15%		Combustors
Duct			natural	$O_2$		Natural Gas, Good
Burners			gas (3)			Combustion
Steam	113.3	23 ppm	2 gr/100	6 ppm	10 - gas	Unit limited to 1000
power	lb/hr	@ 15% O <sub>2</sub>	scf	@ 15%		hours per year of
Augmen-			natural	$O_2$		operation
tation			gas (3)		_	
Cooling					18.2 lb/hr <sup>(2)</sup>	Drift Eliminators
Tower						

- (1)  $NO_X$  limits not determined by BACT.
- (2) Listed for informational purposes only.
- (3) See Fuel Monitoring Schedule in Specific Condition C.33.
- (b) In addition to the above conditions that were established by permit 0050014-002-AC, emissions units -004 and -005 are also independently subject to all of the emission standards and requirements of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. Particularly the NO<sub>X</sub> emission standard contained in 40 CFR 60.332(a)(1), which must be corrected to ISO conditions (see specific Condition C.34.).

[Rules 62-212.400, 62-204.800(7)(b) (Subpart GG and Da), 62-210.200 (Definitions-Potential Emissions) F.A.C.]

Comment 19. Specific Condition # C. 58. Gulf Power doesn't understand this condition as written. The item is Quarterly Excess Emissions Reports but it references notice to the department within 1 working day. The condition should be re-written to clarify what is required in a quarterly report. It is Gulf Power's understanding that all excess emissions greater than the NSPS standard should be

reported in a quarterly report. As noted in C. 59. Only excess emissions for malfunction longer than 2 hours should be reported to the local district office within 24 hours.

## DEP Response 19:

In order to clarify which conditions pertain to NSPS limits and which pertain to NSPS limits, Specific Conditions **C.48.** through **C.60.** have been regrouped under the appropriate headers of "<u>SIP Requirements</u>" and "<u>NSPS</u> Requirements".

## B. Documents on file with the permitting authority:

- -E-mail memo received February 12, 2003, from Mr. Dwain Waters.
- -Letter received March 12, 2003 (dated March 5, 2003), from Mr. Dwain Waters.

## III. Conclusion.

The enclosed PROPOSED Title V Air Operation Permit includes the aforementioned changes to the revised DRAFT Title V Air Operation Permit.

The permitting authority will issue the PROPOSED Permit No.: 0330045-006-AV, with the changes noted above.

## STATEMENT OF BASIS

Gulf Power Company
Lansing Smith Electric Generating Plant
Facility ID No.: 0050014
Bay County

Title V Air Operation Permit Revision **PROPOSED Permit No.:** 0050014-006-AV

This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility 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.

The purpose of this permit revision is to incorporate the terms and requirements of permit number 0050014-002-AC, which authorized the construction of two combined-cycle combustion turbines. This facility now consists of two coal fired steam generators (boilers), two combustion turbines (used to drive two separate peaking generators) driven by a single jet engine, and the two new gas-fired combined-cycle combustion turbine electrical generators with duct-fired heat recovery steam generators (HRSGs). The two boilers are Acid Rain Phase II Units. The two combined-cycle combustion turbines are also Acid Rain units. Pulverized coal is the primary fuel for the boilers. Distillate fuel oil is used to fire the jet engine and as a "back-up" fuel for the boilers. Natural gas is the only fuel allowed to be fired in the two new combined-cycle combustion turbines. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Emissions unit number -001 is a tangentially fired, dry bottom boiler designated as "Boiler Number 1". It is rated at a maximum heat input of 1,944.8 million Btu per hour (MMBtu/hour) when firing pulverized coal and 153 MMBtu/hour when firing distillate fuel oil. Emissions unit number -002 is a tangentially fired, dry bottom boiler designated as "Boiler Number 2". It is rated at a maximum heat input of 2,246.2 million Btu per hour (MMBtu/hour) when firing pulverized coal and 76 MMBtu/hour when firing distillate fuel oil. Both units are Phase II Acid Rain Units. These emissions units pre-date PSD regulations, but are regulated under Rule 62-296.405, F.A.C., Fossil Fuel Fired Steam Generators with more than 250 million Btu per Hour Heat Input. PM emissions from unit -001 are controlled by a hot side (Buell Model # BAL 2X34N333-4-3P) and a cold side (General Electric Model # BE1.2X21(12)30-1.5-1.5-4.2P) electrostatic precipitator. PM emissions from unit -002 are controlled by a hot side (Buell Model # BAL 2X34N333-4-3P) and a cold side (GE-ESI Model # BE2.1X(2-12's)(12)-30-111-4.3P) electrostatic precipitator.

Periodic monitoring for particulate matter will be through the use of COMs. For any calendar quarter in which more than five percent of the COMs readings show 20% or greater opacity, a steady-state particulate matter stack test will be required to be performed and submitted within the following calendar quarter. If the unit does not operate in the following quarter, it shall be tested within 20 days of coming back on-line. These units are subject to a steady-state PM emission limit of 0.1 lb/MMBtu, and 0.3 lb/MMBtu for soot blowing. They are also subject to an opacity standard of 40%. The applicant has presented historical PM test results that show that the steady state and soot blowing average results are approximately thirty percent, or less, of the applicable standards. A five year average of results of particulate matter emission testing, in lb/MMBtu, for this facility is given below:

<u>Unit #</u>	Steady-state	Soot-blowing
1	0.021	0.021
2	0.028	0.031

Given the historically low documented PM emissions combined with the company's agreement to conduct a PM stack test following any quarter in which their COMs data shows that greater than 5% of the readings are greater than half of their opacity limit, the Department believes that periodic monitoring for particulate matter is more than reasonably addressed. The 20% opacity benchmark was chosen as a reasonable level because it is one-half of the opacity standard and because past testing shows low PM emission rates at opacity levels near 20%.

Units 1 and 2 are utilizing CEMS for compliance purposes for NO<sub>X</sub>, SO<sub>2</sub> and opacity.

In order to eliminate violations of Florida's ambient air quality standards off of the plant property, the allowable sulfur dioxide emissions limits for these units have been reduced, through the use of the ISC dispersion model, to the following levels:

Unit No.	Emissions Limit
-001, alone	2.10 lbs/MMBtu
-002, alone	2.70 lbs/MMBtu
-001 & -002, combined	4.50 lbs/MMBtu

Emissions unit number -003 consists of a single engine used to drive two simple cycle combustion turbines (each with its own stack) manufactured by Pratt and Whitney, that are used as a peaking units. They are designated as combustion turbine A & combustion turbine B. Each combustion turbine is connected to a separate generator. The engine is rated at a maximum heat input of 542 million Btu per hour (MMBtu/hour) while being fueled by No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight. Emissions from these combustion turbines are uncontrolled. This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required. These turbines are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines.

Periodic monitoring for the combustion turbines will consist of an EPA Method 9 opacity test. Upon exceeding 400 hours of operation on fuel oil, and every 150 hours of operation on fuel oil thereafter, in any given federal fiscal year (October 1 through September 30), the owner or operator shall conduct a visible emissions test on each of these combustion turbines while firing fuel oil. These tests shall be performed within 20 days of exceeding such operating hours.

Emission units –004 and –005 (collectively designated as Gulf Smith Unit 3) consist of a General Electric Model No. PG7241 (FA), combined-cycle combustion turbine with electrical generator set. The unit will achieve a nominal 566 megawatts, at annual average site conditions, with duct burners. These units are capable of a maximum of approximately 574 megawatts in combined cycle operation with power augmentation and evaporative cooling at 95 degrees F. The maximum heat input of the combustion turbines is a nominal 1,927 MMBtu/hr (LHV at 65 degrees F) each. The maximum heat input of the duct burners is a nominal 303 MMBtu/hr (LHV at 65 degrees F) each. The plant includes two 121 foot stacks; a small heater for the gas pipeline; and a 10-cell, mechanical draft salt water cooling tower. The cooling tower is not subject to a NESHAP because chromium-based chemical treatment is not used. Simple cycle operation is not a permitted activity. Support facilities for Unit 3 include water treatment and storage facilities. Emissions from Units –004 and -005 are controlled by Dry Low NO<sub>X</sub> (DLN) combustors firing exclusively natural gas. Inherently clean fuels and good combustion practices are employed to control all pollutants.

Gulf Power Company - Lansing Smith Electric Generating Plant **PROPOSED** Permit No.: 0050014-006-AV

Statement of Basis Page 3 of 3

The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emissions limits and to aid in determining future rule applicability. A note below the permitted capacity condition clarifies this. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of process variables for emissions tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.

Based on the Title V permit revision application received October 9, 2002, this facility is a major source of hazardous air pollutants (HAPs).

# Gulf Power Company Lansing Smith Electric Generating Plant Facility ID No.: 0050014

**Bay County** 

**Title V Air Operation Permit Revision PROPOSED Permit No.:** 0050014-006-AV

(1st Revision to Initial Title V Permit No.: 0050014-001-AV)

## **Permitting Authority**

State of Florida
Department of Environmental Protection
Division of Air Resources 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

## Title V Air Operation Permit Revision

PROPOSED Permit No.: 0050014-006-AV

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Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)  Appendix TV-4, Title V Conditions (version dated 2/12/02)  Table 1-1, Summary of Air Pollutant Standards and Terms  Table 2-1, Compliance Requirements	



# Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

Permittee:

Gulf Power Company 500 Bay Front Parkway Pensacola, Florida 32520-0100 PROPOSED Permit No.: 0050014-006-AV

Facility ID No.: 0050014 SIC Nos.: 49, 4911

Project: Title V Air Operation Permit Revision

This permit revision is being issued to incorporate the terms and conditions of permit number 0050014-005-AC / PSD-FL-269 (PA99-40), which authorized the construction of two new combined-cycle combustion turbines at the existing Lansing Smith Electric Generating Plant. This facility is located at 4300 County Road, Bay County.

This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility 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 I-1, List of Insignificant Emissions Units and/or Activities Appendix U-1, List of Unregulated Emissions Units and/or Activities

Phase II Acid Rain Permit Application/Compliance Plan Received October 9, 2002 (Signed 3/27/00)

Phase II Acid Rain NO<sub>x</sub> Compliance Plan Signed Received December 22, 1997 (Signed 12/18/97)

Revised Phase II Acid Rain NO<sub>X</sub> Averaging Plan Received August 24, 1999 (Signed 8/17/99)

Appendix PA-1, Patrol Area

Appendix SO-1, Secretarial ORDER(s)

Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)

Appendix TV-4, Title V Conditions (version dated 2/12/02)

Effective Date: January 1, 2000 Revision Effective Date: Day 53

Renewal Application Due Date: July 5, 2004

Expiration Date: December 31, 2004

Howard L. Rhodes, Director, Division of Air Resources Management

HLR/sms/jh

"More Protection, Less Process"

## Section I. Facility Information.

PROPOSED Permit No.: 0050014-006-AV

## Subsection A. Facility Description.

This facility consists of two coal fired steam generators (boilers), two combustion turbines (used to drive two separate peaking generators) driven by a single jet engine, and two gas-fired combined-cycle combustion turbine electrical generators with duct-fired heat recovery steam generators (HRSGs). The two boilers are Acid Rain Phase II Units. The two combined-cycle combustion turbines are also Acid Rain units. Pulverized coal is the primary fuel for the boilers. Distillate fuel oil is used to fire the combustion turbine and as a "back-up" fuel for the boilers. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V permit revision application received October 9, 2002, this facility is a major source of hazardous air pollutants (HAPs).

## Subsection B. Summary of Emissions Unit ID Numbers and Brief Descriptions.

E.U. ID	
No.	Brief Description
	See Control of the C
-001	Boiler Number 1 - 1,944.8 MMBtu/hour (Phase II Acid Rain Unit)
-002	Boiler Number 2 - 2,246.2 MMBtu/hour (Phase II Acid Rain Unit)
-003	Combustion Turbine - 542 MMBtu/hour Peaking Unit
-004	170 MW Gas Combustion Turbine with HRSG and Duct Burner (Acid Rain Unit)
-005	170 MW Gas Combustion Turbine with HRSG and Duct Burner (Acid Rain Unit)
-006	Cooling Tower
-007	Material Handling of Coal and Ash (See Appendix U-1)
-008	Fugitive PM Sources - On-site Vehicles (See Appendix U-1)
-009	General Purpose Internal Combustion Engines (See Appendix U-1)

Please reference the Permit Number, the Facility Identification Number, and the appropriate Emissions Unit(s) ID Number(s) on all correspondence, test report submittals, applications, etc.

## Subsection C. Relevant Documents.

The following documents are part of this permit:

Appendix I-1, List of Insignificant Emissions Units and/or Activities

Appendix U-1, List of Unregulated Emissions Units and/or Activities

Phase II Acid Rain Permit Application/Compliance Plan Received October 9, 2002 (Signed 3/27/00)

Phase II Acid Rain NO<sub>X</sub> Compliance Plan, Signed Received December 22, 1997 (Signed 12/18/97)

Revised Phase II Acid Rain NO<sub>x</sub> Averaging Plan Received August 24, 1999 (Signed 8/17/99)

Appendix PA-1, Patrol Area

Appendix SO-1, Secretarial ORDER(s)

Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)

Appendix TV-4, Title V Conditions (version dated 2/12/02)

{Permitting Note: 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:

Appendix H-1, Permit History / ID Number Transfers

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/5/97)

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

Table 2-1, Summary of Compliance Requirements

## These documents are on file with the permitting authority:

Initial Title V Air Operation Permit effective January 1, 2000

Title V Air Operation Permit Revision Application received October 9, 2002

## These documents are on file with USEPA:

The Responsible Official has certified that the Risk Management Plan was submitted to the RMP Reporting Center.

## Section II. Facility-wide Conditions.

PROPOSED Permit No.: 0050014-006-AV

## The following conditions apply facility-wide:

1. Appendix TV-4, Title V Conditions, is a part of this permit.

{Permitting note: Appendix TV-4, Title V Conditions is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate. If desired, a copy of Appendix TV-4, Title V Conditions can be downloaded from the Division of Air Resources Management's Internet Web site.

- 2. Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not 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. Prevention of Accidental Releases (Section 112(r) of CAA).
- a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
- b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
- c. The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S. and Rule 9G-21, F.A.C.

Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to:

Department of Community Affairs
Division of Emergency Management
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100

Telephone: 850/413-9921, Fax: 850/488-1739

Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center Post Office Box 3346 Merrifield, VA 22116-3346 Telephone: 703/816-4434

Any required reports to be sent to the National Response Center, should be sent to:

National Response Center
EPA Office of Solid Waste and Emergency Response
USEPA (5305 W)
401 M Street, SW
Washington, D.C. 20460
Telephone: 1/800/424-8802

Send the required annual registration fee using approved forms made payable to:

Cashier

Department of Community Affairs State Emergency Response Commission 2555 Shumard Oak Boulevard Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S. and Rule 9G-21, F.A.C.]

4. <u>Statement of Compliance</u>. 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-4, TITLE V CONDITIONS).}

- 5. <u>Insignificant Emissions Units and/or Activities</u>. 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.]
- 6. <u>Unregulated Emissions Units and/or Activities</u>. 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.]
- 7. <u>General Pollutant Emission Limiting Standards</u>. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

[Rule 62-296.320(1)(a), F.A.C.]

{Permitting Note: No vapor emission control devices or systems are deemed necessary nor ordered by the Department as of the issuance date of this permit.}

8. 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.]

9. <u>Emissions of Unconfined Particulate Matter</u>. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility are listed below (see Condition No. 57. of Appendix TV-4).

The following requirements are "not federally enforceable":

- a) Grassing over each section of the ash landfill as it reaches its capacity.
- b) Regular packing of the coal pile to reduce blowing dust and aid in the prevention of coal fires.
- c) Application of a dust suppressant to the coal on the conveyor belts as necessary.
- d) Chemical or water application to unpaved roads and/or unpaved yard areas.
- e) Paving and maintenance of roads, parking areas, and yards.
- f) Landscaping or planting of vegetation.
- g) Confining abrasive blasting where possible.
- h) Other techniques, as necessary.

[Rules 62-296.320(4)(c)2., F.A.C.; and, Proposed by applicant in the initial Title V application received June 14, 1996, and in the Title V permit revision application received October 9, 2002.]

- 10. 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.]
- 11. The Department's Northwest District Office (Pensacola) telephone number for reporting problems, malfunctions or exceedances under this permit is (850) 595-8364, extension 1220, day or night, and for emergencies involving a significant threat to human health or the environment is (800) 320-0519. For routine business, telephone (850) 595-8364, then press 7, during normal working hours. [Rules 62-210.700 and 62-4.130, F.A.C.]
- 12. The permittee shall submit all compliance-related notifications and reports required of this permit (other than Acid Rain Program Information) to the Department's Northwest District office:

Department of Environmental Protection Northwest District Office 160 Governmental Center Pensacola, Florida 32501-5794 Telephone: 850/595-8364, press 7

Fax: 850/595-8096

Acid Rain Program Information shall be submitted, as necessary, to:

Department of Environmental Protection 2600 Blair Stone Road Mail Station #5510 Tallahassee, Florida 32399-2400 Telephone: 850/488-0114

Fax: 850/922-6979

13. Any reports, data, notifications, certifications, and requests (other than Acid Rain Program Information) 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: 404/562-9163

## Miscellaneous Conditions

14. <u>Patrolling Requirements</u>. Computer modeling results indicate modeled violations of the State of Florida's, and of the National, 24-hour sulfur dioxide ambient air quality standards within the property boundaries of this plant. In order to protect the general public, "No Trespassing" notices, combined with a regular patrol to ensure that public access is precluded in the areas described below (see Appendix PA-1, Patrol Area):

Beginning from the point of origin<sup>1, 2</sup>, proceed due north for a distance of approximately 330 meters until reaching the old fence line (point 1). From point 1, turn 90° to the west and proceed along the old fence line for a distance of 580 meters (point 2). From point 2, proceed due south for a distance of 175 meters (point 3). From point 3, proceed back to the point of origin to define the area.

[Rules 62-204.220(1) & 62-204.240(1), F.A.C.]

15. Facility-wide  $NO_X$  Emissions Cap. In addition to individual (point source) emission limits and  $NO_X$  averaging plan requirements, the Lansing Smith facility shall be required to comply with a facility-wide  $NO_X$  emissions cap of 6,666 TPY. CEMS shall be the method of compliance. See facility-wide Specific Condition 16. for reporting and record-keeping requirements. [0050014-002-AC.]

<sup>&</sup>lt;sup>1</sup> Point of origin: center of the common stack for Units 1 and 2.

<sup>&</sup>lt;sup>2</sup> Set due North from the center of the stack as 0°.

16. CEMS for Reporting Facility-wide NO<sub>X</sub> Emissions: The NO<sub>X</sub> CEMS shall be used for ensuring compliance with the facility-wide cap. For the oil-fired peaking turbine (Emissions Unit EU-003), emissions shall be determined using fuel sampling and AP-42 emission factors. Monthly records shall be maintained of the facility-wide NO<sub>x</sub> emissions and the owner/operator shall calculate the facility-wide cap on a monthly basis for each prior consecutive 12-month period. These records shall be made available to inspectors as necessary. Additionally, a summary shall be filed with each quarterly report as a means of demonstrating compliance with the facility-wide cap for each consecutive 12-month period. The monthly calculations for the coal-fired units shall consist of use of the monthly NO<sub>X</sub> emission rate per MMBtu (as determined by CEMS using the appropriate fuel F factor) multiplied by the monthly fuel (MMBtu) usage as specified in the Lansing Smith Title V permit and converted as appropriate to tons of NO<sub>x</sub> for each unit. The sum of the monthly NO<sub>x</sub> emissions from the coal units and the oil-fired peaking turbine shall then be added to the monthly NO<sub>X</sub> emissions from the combined cycle unit, which will be calculated based upon the monthly average NO<sub>X</sub> emission rate (lb/hr) multiplied by the number of valid operating hours for the same period. This annual emissions cap became effective on the first day of the month following completion of the initial performance testing of Unit 3, and compliance shall begin based upon the first twelve months of operation thereafter.

PROPOSED Permit No.: 0050014-006-AV

[Rule 62-4.070 and 62-204.800(7), F.A.C. to avoid PSD Review; and, 0050014-002-AC.]

17. <u>Statement of Compliance</u>. 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-4, TITLE V CONDITIONS).}

18. <u>Certification by Responsible Official (RO)</u>. 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 Units and Conditions.

PROPOSED Permit No.: 0050014-006-AV

## Subsection A. This section addresses the following emissions units.

## E.U. ID

No.	Brief Description
-001	Boiler Number 1 (Phase II Acid Rain Unit)
-002	Boiler Number 2 (Phase II Acid Rain Unit)

Emissions unit number -001 is a tangentially fired, dry bottom boiler designated as "Boiler Number 1". Emissions unit number -002 is a tangentially fired, dry bottom boiler designated as "Boiler Number 2". Pulverized coal is the primary fuel for both boilers. Distillate fuel oil can be fired for purposes of startup and flame stabilization. Both units are Phase II Acid Rain Units.

{Permitting notes: These emissions units are regulated under Acid Rain, Phase II. These emissions units pre-date PSD regulations, but are regulated under Rule 62-296.405, F.A.C., Fossil Fuel Fired Steam Generators with more than 250 million Btu per Hour Heat Input. PM emissions from unit -001 are controlled by a hot side (Buell Model # BAL 2X34N333-4-3P) and a cold side (General Electric Model # BE1.2X21(12)30-1.5-1.5-4.2P) electrostatic precipitator. PM emissions from unit -002 are controlled by a hot side (Buell Model # BAL 2X34N333-4-3P) and a cold side (GE-ESI Model # BE2.1X(2-12's)(12)-30-111-4.3P) electrostatic precipitator. Unit -001 began commercial operation on May 12, 1965. Unit -002 began commercial operation on April 9, 1967. Units -001 and -002 share a common stack. Stack height = 199 feet, exit diameter = 18.0 feet, exit temperature = 260 °F, actual volumetric flow rate = 1,567,967 acfm.}

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

## Essential Potential to Emit (PTE) Parameters

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

<u>Unit No.</u>	MMBtu/hr Heat Input	Fuel Type
-001	1,944.8	Coal
	153	No. 2 Fuel Oil
	153	On-Specification Used Oil
-002	2,246.2	Coal
	76	No. 2 Fuel Oil
	76	On-Specification Used Oil

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, in order to demonstrate what percentage of the rated capacity that the unit

was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

[Rules 62-4.160(2), 62-210.200(PTE) & 62-296.405, F.A.C.; permits AC03-2023 & AC03-2024; and, Applicant's request in initial Title V permit application received June 14, 1996.]

**A.2.** Emissions Unit Operating Rate Limitation After Testing. See specific condition **A.29**. [Rule 62-297.310(2), F.A.C.]

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

- a. <u>Fuels</u>. The fuels that are allowed to be burned in these boilers are coal and/or new No. 2 fuel oil and/or on-specification used oil (see specific condition **A.36.**). Fuel oil is only used for periods of start-up and as needed for flame stabilization. Also, on-site generated "oil contaminated soil" is periodically combusted for energy recovery purposes.
- b. Other.
  - 1. Supplemental injection of "sodium carbonate" (at a rate of up to 420 pounds per hour) as necessary to maintain visible emissions below the applicable standards.
- 2. Supplemental injection of "GAM 60" for purposes of maintaining boiler tube temperatures. [Rule 62-213.410, F.A.C.; Applicant's request in initial Title V permit application dated June 14, 1996, and in revised Title V permit application dated June 18, 1999; and, Gulf Power letter dated July 15, 2002.]
- **A.4.** Hours of Operation. These emissions units may operate continuously, i.e. 8760 hours/year. For each emissions unit, the permittee shall maintain an operation log available for Department inspection that documents the total hours of annual operation, including a detailed account of the hours operated on each of the allowable fuels.

[Rules 62-213.440 & 62-210.200(PTE), F.A.C.; and, Applicant's request in initial Title V application received June 14, 1996.]

## **Emission Limitations and Standards**

{Permitting Note: The attached 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 conditions A.5. - A.9. are based on the specified averaging time of the applicable test method.}

**A.5.** <u>Visible Emissions</u>. Visible emissions shall not exceed 40 percent opacity. Because units 1 and 2 share a common stack, visible emissions violations from the stack will be attributed to both units unless opacity meter results show the specific unit causing the violation.

[Rule 62-296.405(1)(a), F.A.C.; and, Secretarial ORDER(s) signed October 18, 1985, and December 1, 1982; and, AO03-211310, Specific Condition 10.]

**A.6.** <u>Visible Emissions - Soot Blowing and Load Change</u>. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed for boiler cleaning and load changes, at units which have installed continuous opacity monitors.

[Rule 62-210.700(3), F.A.C.]

{Permitting Note: Load changes may be demonstrated by monitoring megawatt output.}

A.7. Particulate Matter. Particulate matter emissions shall not exceed 0.1 pound per million Btu heat input, as measured by applicable compliance methods. [Rule 62-296.405(1)(b), F.A.C.]

{Permitting Note: The averaging time shall correspond to the cumulative sample time, as specified in the reference test method (see specific condition A.20.).}

- **A.8.** Particulate Matter Soot Blowing and Load Change. Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change. [Rule 62-210.700(3), F.A.C.]
- A.9.a. Sulfur Dioxide. From the effective date of this permit until March 31, 2000, sulfur dioxide emissions shall not exceed 5.50 lbs./MMBtu, as measured by applicable compliance methods. [Rule 62-213.440, F.A.C.; and, applicant request.]
- **A.9.b.** Sulfur Dioxide. Starting April 1, 2000, sulfur dioxide emissions shall not exceed the following emissions limitations, as measured by applicable compliance methods:

Unit No.	<b>Emissions Limit</b>
-001, alone	2.10 lbs./MMBtu
-002, alone	2.70 lbs./MMBtu
-001 & -002, combined	4.50 lbs./MMBtu

[Rules 62-204.220(1) & 62-204.240(1), F.A.C.; and, applicant request.]

**A.10.** Sulfur Dioxide - Sulfur Content. The sulfur content of the No. 2 fuel oil and the "onspecification" used oil shall not exceed 0.5 percent, by weight, as measured by applicable test methods. [Applicant request in initial Title V permit application received June 14, 1996.]

## **Excess Emissions**

**A.11.** Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

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[Rule 62-210.700(1), F.A.C.]

A.12. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

[Rule 62-210.700(2), F.A.C.]

**A.13.** 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**

{Permitting Note: In accordance with the Acid Rain Phase II requirements, the following continuous monitors are installed on these units: SO<sub>2</sub>, NO<sub>X</sub>, CO<sub>2</sub> and stack gas flow.}

- **A.14.** Continuous Monitors. These emissions units shall have installed, and shall maintain, continuous monitoring systems for monitoring opacity and CO<sub>2</sub>. [Rule 62-296.405(1)(f)1., F.A.C.]
- A.15. <u>Sulfur Dioxide</u>. Those emissions units not having an operating flue gas desulfurization device may monitor sulfur dioxide emissions by fuel sampling and analysis according to methods approved by the EPA. The permittee elected to satisfy the <u>monitoring</u> requirements using SO<sub>2</sub> continuous emissions monitors.

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

## Required Tests, Test Methods and Procedures

{Permitting Note: The attached 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.** Annual Tests Required. Units -001 and -002 must be tested annually for SO<sub>2</sub> and PM emissions in accordance with the requirements listed below.

[Rule 62-297.320(7)(a)4., F.A.C.]

A.17. Testing While Injecting Additives. If supplemental additives are used greater than 50% of the time that the unit(s) are operated, the owner or operator shall conduct all emissions tests while injecting additives, consistent with normal operating practices approved by the Department.

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

A.18. <u>Visible Emissions</u>. The test method for visible emissions shall be DEP Method 9 (see specific condition A.19.), incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. The Permittee has elected to utilize a transmissometer (opacity meter) for demonstrating compliance with the visible emissions limit. As long as the transmissometer is calibrated, maintained, and operated in accordance with Performance Specification 1 of 40 CFR 60, Appendix B (see specific condition A.23.), the annual test for visible emissions is not required.

[Rules 62-213.440 and 62-296.405(1)(e)1., F.A.C.]

{Permitting Note: A transmissometer used to demonstrate compliance should record sufficient data so as to be equivalent to a Method 9 test. Method 9 requires determining an average based on 24 readings at 15-second intervals, thus, a six-minute average. The transmissometers in use at this facility make a permanent recording every six-minutes based on an average of readings taken every 15 seconds. After the 6-minute average is recorded, the individual readings are erased and a new 6-minute average is determined based on the next set of 24 individual readings. This 6-minute block recording is consistent with the requirements of Method 9.}

- **A.19.** 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. [Rules 62-297.310, and 62-297.401, F.A.C.]

A.20. Particulate Matter. The test methods for particulate matter emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. [Rules 62-213.440, 62-296.405(1)(e)2., 62-297.310, and 62-297.401, F.A.C.]

A.21. <u>Sulfur Dioxide</u>. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedances of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards.

[Rules 62-213.440, 62-296.405(1)(e)3., & 62-297.310, 62-297.401, F.A.C.; and, AO03-211310]

{Permitting Note: The permittee has elected to demonstrate compliance with the SO<sub>2</sub> limits specified in condition A.9. by means of a continuous emissions monitoring system (CEMS). In addition to any other requirements associated with the operation and maintenance of these CEMS (i.e., Acid Rain requirements), operation of the CEMS shall be in accordance with the requirements listed below. The annual calibration RATA associated with these CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met (i.e., prior test notification, proper test result submittal, etc.).}

A.22. Continuous SO<sub>2</sub> emission monitoring 24-hour averages are required to demonstrate compliance with the standards of the Department (Specific Condition A.9.). A valid 24-hour average shall consist of no less than 18 hours of valid data capture per calendar day. In the event that valid data capture is interrupted, the permittee shall immediately initiate as-fired fuel sampling to demonstrate compliance with the SO<sub>2</sub> emissions standard. As-fired fuel sampling shall continue until such time as valid data capture is restored. In lieu of as-fired fuel sampling, the permittee may elect to demonstrate SO<sub>2</sub> emissions compliance by the temporary use of a spare SO<sub>2</sub> emissions monitor. The spare, previously calibrated, SO<sub>2</sub> emissions monitor must be installed and collecting data in the same time frame as required above for as-fired fuel sampling.

Maintain a quality control (QC) program. At a minimum, the QC program must include written procedures which shall describe in detail complete, step-by-step procedures and operations for each of the following activities:

1. Calibration of CEMS.

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2. Calibration Drift (CD) determination and adjustment of CEMS.

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- 3. Preventative maintenance of CEMS (including spare parts inventory).
- 4. Data recording, calculations and reporting.
- 5. Accuracy audit procedures including sampling-and analysis methods.
- 6. Program of corrective action for malfunctioning CEMS.

[Rules 62-213.440, 62-204.800(7)(e)5., and 62-296.405(1)(f)1.b., F.A.C.; and, AO03-211310.]

- **A.23.** Continuous Monitor Performance Specifications. If continuous monitoring systems are required by rule or are elected by the permittee to be used for demonstrating compliance with the standards of the Department, they must be installed, maintained and calibrated, either:
- (a) in accordance with the EPA performance specifications listed below. These Performance Specifications are contained in 40 CFR 60, Appendix B, and are adopted by reference in Rule 62-204.800, F.A.C.
  - (1) Performance Specification 1--Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources.
  - (2) Performance Specification 2--Specifications and Test Procedures for SO<sub>2</sub> Continuous Emission Monitoring Systems in Stationary Sources.
  - (3) Performance Specification 3--Specifications and Test Procedures for CO<sub>2</sub> Continuous Emission Monitoring Systems in Stationary Sources. Or,
- (b) in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Excess emissions pursuant to Rule 62-210.700, F.A.C., shall be determined using the 40 CFR part 75 CEMS. [Rule 62-297.520, F.A.C.; 40 CFR 75; and, Applicant request.]
- **A.24.** Fuel Sampling and Analysis. The following fuel sampling and analysis protocol shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard in the event that the SO<sub>2</sub> continuous emissions monitor is not able to capture valid data:
  - a. Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, to analyze a representative sample of the blended fuel following each fuel delivery.
  - b. Determine and record the as-fired fuel sulfur content, percent by weight, for coal using ASTM D2013-72 and either ASTM D3177-75 or ASTM D4239-85, or the latest edition, to analyze a representative sample of the blended as-fired pulverized coal.
  - c. Determine and record the density (using ASTM D 1298-80, or the latest edition) and the calorific heat value in Btu per pound (using ASTM D 240-76, or the latest edition) of the fuel oil combusted.
  - d. Determine and record the calorific heat value in Btu per pound of the blended, as-fired pulverized coal using ASTM D2013-72 and either ASTM D2015-77 or D3286-(latest version), or the latest editions.
  - e. Record daily the amount of each fuel fired, the density of the fuel oil, the heating value of each fuel fired, and the percent sulfur content, by weight, of each fuel fired.
  - f. Utilize the information in a., b., c., d. and e., above, to calculate the SO<sub>2</sub> emission rate to ensure compliance at all times.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

**A.25.** 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 and/or solid fuel for more than 400 hours other than during startup.
- 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to 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.
- 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) <u>Special Compliance Tests</u>. 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.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance 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.

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

## **Compliance Test Requirements**

## A.26. 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.]

{Permitting Note: The permittee and the Department agree that the CEMS used for the federal Acid Rain Program conservatively overestimates the heat input for this unit. The monitoring data for heat input is therefore not appropriate for purposes of compliance, including annual compliance certification.}

**A.27.** 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.]

A.28. 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.29. 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.]

## A.30. Applicable Test Procedures.

## (a) Required Sampling Time.

- 1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
- 2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - a. For batch, cyclical processes, or other operations, which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) <u>Minimum Sample Volume</u>. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - {Permitting Note: Specific Condition A.20. specifies a minimum sample volume of 30 dry standard cubic feet.}
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) <u>Calibration of Sampling Equipment</u>. 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.]

## TABLE 297.310-1 CALIBRATION SCHEDULE

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually	Spirometer or calibrated wet test or dry gas test meter	2%
	3. Check after each test series	Comparison check	5%

## Recordkeeping and Reporting Requirements

- **A.31.** The owner or operator shall maintain daily records of fuel consumption and each analysis that provides the heating value and sulfur content for all fuels fired. These records must be of sufficient detail to determine compliance with the allowable sulfur dioxide emission limitations. [Rules 62-213.440 & 62-4.070(3), F.A.C.]
- A.32. 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.33.** Submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years. [Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]
- **A.34.** A maintenance log of the continuous monitoring systems shall be kept showing:
  - a. Time out of service.
  - b. Calibration and adjustments.

[Rule 62-213.440, F.A.C.; and, AO03-211310, specific condition 8.]

## A.35. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
  - 1. The type, location, and designation of the emissions unit tested.
  - 2. The facility at which the emissions unit is located.
  - 3. The owner or operator of the emissions unit.
  - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission-limiting standard.
  - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  - 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.

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- 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 Conditions

- **A.36.** <u>Used Oil</u>. Burning of on-specification used oil is allowed in this emissions unit in accordance with all other conditions of this permit and the following conditions:
  - a. On-specification Used Oil Emissions Limitations: This emissions unit is permitted to burn on-specification used oil, which contains a PCB concentration of less than 50 ppm. On-specification used oil is defined as used oil that meets the specifications of 40 CFR 279 Standards for the Management of Used Oil, listed below. "Off-specification" used oil shall not be burned. Used oil which fails to comply with any of these specification levels is considered "off-specification" used oil.

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CONSTITUENT/PROPERTY	ALLOWABLE LEVEL
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash point	100 degrees F minimum

- b. Quantity Limitation: This emissions unit is permitted to burn "on-specification" used oil that is generated by Gulf Power Company, not to exceed 50,000 gallons per calendar year in each boiler (-001 & -002).
- c. <u>PCB Limitation</u>: Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
- d. Operational Requirements: On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures. On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall not be burned during periods of startup or shutdown.
- e. <u>Testing Requirements</u>: For each batch of used oil to be burned, the owner or operator must be able to demonstrate that the used oil qualifies as on-specification used oil and that the PCB content is less than 50 ppm.

The requirements of this demonstration are governed by the following federal regulations:

Analysis of used oil fuel. A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of Sec. 279.11 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.

[40 CFR 279.72(a)]

Testing of used oil fuel. Used oil to be burned for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs.

- (i) The person who first claims that a used oil fuel does not contain quantifiable level (2 ppm) PCB must obtain analyses or other information to support that claim.
- (ii) Testing to determine the PCB concentration in used oil may be conducted on individual samples, or in accordance with the testing procedures described in Sec. 761.60(g)(2). However, for purposes of this part, if any PCBs at a concentration of 50 ppm or greater have been added to the container or equipment, then the total container contents must be considered as having a PCB concentration of 50 ppm or greater for purposes of complying with the disposal requirements of this part.

(iii)Other information documenting that the used oil fuel does not contain quantifiable levels (2 ppm) of PCBs may consist of either personal, special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the oil contains no detectable PCBs.

[40 CFR 761.20(e)(2)]

When testing is required, the owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens, flash point and PCBs.

Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

Additionally, the owner or operator shall sample and analyze each batch of used oil to be burned for the sulfur content (by weight), density and heat content in accordance with applicable test methods (see specific condition A.24.).

- f. Record Keeping Requirements: The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department:
  - (1) The gallons of on-specification used oil placed into inventory to be burned and the gallons of on-specification used oil burned each month, and
  - (2) For each deposit of used oil, results of the analyses as required by the above conditions, or
  - (3) Other information, besides testing, used to make a claim that the used oil meets the requirements of on-specification used oil or that the used oil contains less than 50 ppm of PCBs.

[40 CFR 279.72(b), 40 CFR 279.74(b) and 40 CFR 761.20(e)]

g. Reporting Requirements: The owner or operator shall submit, with the Annual Operation Report form, the analytical results required above and the total amount of on-specification used oil placed into inventory to be burned and the total amount of on-specification used oil burned during the previous calendar year.

[Rules 62-4.070(3) and 62-213.440, F.A.C.; and, 40 CFR 279 and 40 CFR 761, unless otherwise noted.]

**A.37.** Ambient Monitoring Requirements. Owners of fossil fuel steam generators shall monitor their emissions and the effects of the emissions on ambient concentrations of sulfur dioxide, in a manner, frequency, and locations approved, and deemed necessary and ordered by the Department. [Rule 62-296.405(1)(c)3., F.A.C.]

{Permitting Note: The Department recognizes that Gulf Power maintains two ambient monitoring stations at this facility, however, as of the issuance date of this permit, these stations are not required by the Department and are not a part of the Department's network of ambient monitoring stations.}

- **A.38.** Periodic Monitoring Requirements. Periodic monitoring for particulate matter shall be COMs. For any calendar quarter in which more than five percent of the COMs readings show 20% or greater opacity (excluding start-up, shut-down and periods of COMs outages), a steady state particulate matter stack test shall be performed and submitted within the following calendar quarter. The stack test shall comply with all of the testing and reporting requirements contained in the preceding specific conditions and, where practicable, shall be performed while operating at conditions representative of those showing greater than 20% opacity. Units are not required to be brought on-line solely for the purpose of performing this special compliance test. If the unit does not operate in the following quarter, the special compliance test may be postponed until the unit is brought back on-line. Once back on-line, the special test shall be performed within 20 days.

  [Rule 62-213.440(4), F.A.C.]
- **A.39.** Facility-wide  $NO_X$  Emissions Cap. In addition to the above requirements, emissions units -001 and -002 are also subject to the facility-wide  $NO_X$  emissions cap of 6,666 tons per year. See Facility-wide Conditions 15. & 16.

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

#### E.U. ID

No. Brief Description

-003 Combustion Turbines A & B

Emissions unit number -003 consists of a single engine used to drive two simple cycle combustion turbines, manufactured by Pratt and Whitney, that are used as a peaking units. They are designated as combustion turbine A & combustion turbine B. Each combustion turbine is connected to a separate generator. The engine is rated at a maximum heat input of 542 million Btu per hour (MMBtu/hour) while being fueled by No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight. Emissions from these combustion turbines are uncontrolled.

{Permitting notes: This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required. These turbines are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. Each combustion turbine has its own stack. Stack heights = 33 feet, exit dimensions = 13'-7" x 10'-2", exit temperatures = 1,200 °F, actual volumetric flow rate (total for both stacks) = 1,069,740 acfm. They began commercial operation on May 18, 1971.}

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

# Essential Potential to Emit (PTE) Parameters

**B.1.** Permitted Capacity. The maximum operation heat input rates are as follows:

<u>Unit No.</u> <u>MMBtu/hr Heat Input</u> <u>Fuel Type</u>
-003 542 No. 2 Fuel Oil
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

**B.2.** Emissions Unit Operating Rate Limitation After Testing. See specific condition **B.13**. [Rule 62-297.310(2), F.A.C.]

**B.3.** Methods of Operation - Fuels. Only new No. 2 fuel oil shall be fired in this combustion turbine engine.

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

**B.4.** Hours of Operation. This emissions unit may operate continuously, i.e. 8,760 hours/year. The permittee shall maintain an operation log available for Department inspection that documents the total hours of annual operation.

[Rules 62-213.440 & 62-210.200(PTE), F.A.C.; and, applicant request in initial Title V application received June 14, 1996.]

# Emission Limitations and Standards

{Permitting Note: The attached Table 1-1, 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.}

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{Permitting note: Unless otherwise specified, the averaging time for condition **B.5.** is based on the specified averaging time of the applicable test method.}

**B.5.** <u>Visible Emissions</u>. Visible emissions from each turbine shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.; and, AO03-249657.]

**B.6.** Sulfur Dioxide - Sulfur Content. The sulfur content of the new No. 2 fuel oil shall not exceed 0.5 percent, by weight (see specific condition **B.12.**). The permittee shall maintain a log available for Department inspection of the fuel sulfur content.

[Rule 62-213.440, F.A.C.; AO03-249657; and, applicant request in initial Title V application received June 14, 1996.]

### **Excess Emissions**

- **B.7.** Excess emissions from these emissions units 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.8.** 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**

**B.9.** Sulfur Dioxide. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor upon each fuel delivery. See specific conditions **B.6.** and **B.12.** 

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

# **Test Methods and Procedures**

{Permitting Note: The attached 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.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.

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(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.]

- B.11. Visible emissions. The test method for visible emissions shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]
- B.12. Sulfur Content. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition.

[Rules 62-213.440 and 62-297.440, F.A.C.]

**B.13.** Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating 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 (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.

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

#### Applicable Test Procedures. B.14.

- (a) Required Sampling Time.
  - 2. Opacity Compliance Tests. When EPA 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.

[Rule 62-297.310(4)(a)2., F.A.C.]

- **B.15.** 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;
  - 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) <u>Special Compliance Tests</u>. 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.

[Rule 62-297.310(7), F.A.C.; and, AO65-242827, Specific Condition #5 (frequency); and, SIP Approved.]

# Recordkeeping and Reporting Requirements

**B.16.** 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.]

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### **B.17.** 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. [Rule 62-297.310(8), F.A.C.]

#### Miscellaneous Conditions

**B.18.** Periodic Monitoring Requirements. The owner or operator shall conduct testing for visible emissions, using EPA Method 9, while the combustion turbine is operating at 90-100 percent of its capacity, according to the following schedule:

Upon exceeding 400 hours of operation on fuel oil, and every 150 hours of operation on fuel oil thereafter, in any given federal fiscal year (October 1 through September 30), the owner or operator shall conduct a visible emissions test on each of these combustion turbines while firing fuel oil. These tests shall be performed within 20 days of exceeding such operating hours.

Regardless of the number of hours of operation on fuel oil, at least one compliance test shall be conducted on each combustion turbine every five years, coinciding with the term of this operation permit. [Rules 62-213.440(4) and 62-297.310(7), F.A.C.]

**B.19.** Facility-wide  $NO_X$  Emissions Cap. In addition to the above requirements, emissions unit -003 is also subject to the facility-wide  $NO_X$  emissions cap of 6,666 tons per year. See Facility-wide Conditions 15. & 16.

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

# E.U. ID

No.	Brief Description
-004	Combined Cycle Combustion Turbine Generator Unit No. 1 (CC-1)
-005	Combined Cycle Combustion Turbine Generator Unit No. 2 (CC-2)
-006	Salt Water Cooling Tower

Emission units -004 and -005 (collectively designated as Gulf Smith Unit 3) consist of a General Electric Model No. PG7241 (FA), combined-cycle combustion turbine with electrical generator set. The unit will achieve a nominal 566 megawatts, at annual average site conditions, with duct burners. These units are capable of a maximum of approximately 574 megawatts in combined cycle operation with power augmentation and evaporative cooling at 95 degrees F. The maximum heat input of the combustion turbines is a nominal 1,927 MMBtu/hr (LHV at 65 degrees F) each. The maximum heat input of the duct burners is a nominal 303 MMBtu/hr (LHV at 65 degrees F) each. The plant includes two 121 foot stacks; a small heater for the gas pipeline; and a 10-cell, mechanical draft salt water cooling tower. The cooling tower is not subject to a NESHAP because chromium-based chemical treatment is not used. Simple cycle operation is not a permitted activity. Support facilities for Unit 3 include water treatment and storage facilities. Emissions from Units -004 and -005 are controlled by Dry Low NO<sub>X</sub> (DLN) combustors firing exclusively natural gas. Inherently clean fuels and good combustion practices are employed to control all pollutants.

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{Permitting notes: These units began commercial operation during January of 2002. Units -004 and -005 are regulated under Acid Rain, Phase II. In addition, these CT's are regulated under: NSPS – 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; a BACT determination (PSD-FL-269), dated July 28, 2000; Air Construction Permit No. 0050014-002-AC, issued July 28, 2000; and, Air Construction Permit revision project No. 0050014-003-AC. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not required to demonstrate compliance with non-NSPS permit standard(s). Stack heights = 121 feet, exit diameters = 16.8 feet, exit temperatures = 186 °F, actual volumetric flow rates = 981,334 acfm.}

#### General

C.1. <u>Definitions</u>. 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; Rule 62-204.800(7)(a), F.A.C.]

#### C.2. Circumvention.

(a) 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.

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- (b) The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly.
- [40 CFR 60.12; and, Rule 62-210.650, F.A.C.]
- C.3. <u>Modifications</u>. Except as provided under 40 CFR 60.14(e) and (f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

[40 CFR 60.14(a)]

C.4. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.; and, 0050014-002-AC]

{Permitting Note: In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}

# Essential Potential to Emit (PTE) Parameters

#### **C.5**. Permitted Capacity.

- (a) Combustion Turbine Capacity. The maximum heat input rate, based on the lower heating value (LHV) of the fuel at ambient conditions of 65°F temperature, 100% load, and 14.7 psi pressure shall not exceed 1,927 million Btu per hour (MMBtu/hr) for each combustion turbine when firing natural gas. The 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 shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing annual compliance testing.
- (b) <u>Heat Recovery Steam Generator equipped with Duct Burner</u>. The maximum heat input rate of each natural gas fired duct burner shall not exceed 303 MMBtu/hour (LHV). [Rules 62-4.160(2) & 62-210.200(PTE), F.A.C.; and, 0050014-002-AC & 0050014-003-AC].

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop

measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

- C.6. Emissions Unit Operating Rate Limitation After Testing. See specific condition C.42. [Rule 62-297.310(2), F.A.C.]
- C.7. <u>Methods of Operation Allowable Fuels</u>. Only pipeline natural gas shall be fired in these units. [Applicant Request; Rule 62-210.200, F.A.C. (Definitions-Potential Emissions); and, 0050014-002-AC.]

{Permitting Note: For the purposes of Subsection C. of this permit, "pipeline natural gas" means natural gas with a sulfur content of less than 2.0 grains per dry standard cubic foot that is provided by the natural gas pipeline transmission company. (See Specific Condition C.13.)}

C.8. <u>Hours of Operation</u>. Maximum allowable hours of operation for the 566 MW Combined Cycle Plant are 8,760 hours per year while firing natural gas. Operation in steam power augmentation mode is limited to 1,000 hours per year.

[Applicant Request; Rule 62-210.200, F.A.C. (Definitions-Potential Emissions); and, 0050014-002-AC.]

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

{Permitting Note: The attached 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: The averaging times for Specific Conditions C.9. - C.14. are based on the specified averaging time of the applicable test method.}

# **C.9.** Emissions Summary.

(a) The following table is a summary of the BACT determination and is followed by the applicable specific conditions. Values are corrected to 15% O<sub>2</sub> on a dry basis. These limits, or their equivalent in terms of lb/hr or NSPS units, as well as the applicable averaging times, are followed by the applicable specific conditions.

Emission Unit	$NO_X^{(1)}$	CO BACT	SO <sub>2</sub> /SAM BACT	VOC BACT	PM/Visibility (% Opacity)	Technology and Comments
C.T.'s: With Duct Burners	82.9 lb/hr	16 ppm @ 15% O <sub>2</sub>	2 gr/100 scf natural gas <sup>(3)</sup>	4 ppm @ 15% O <sub>2</sub>	10 - gas	Dry Low NO <sub>X</sub> Combustors Natural Gas, Good Combustion
Steam power Augmen- tation	113.3 lb/hr	23 ppm @ 15% O <sub>2</sub>	2 gr/100 scf natural gas <sup>(3)</sup>	6 ppm @ 15% O <sub>2</sub>	10 - gas	Unit limited to 1000 hours per year of operation
Cooling Tower		,			18.2 lb/hr <sup>(2)</sup>	Drift Eliminators

(1) NO<sub>X</sub> limits not determined by BACT.

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- (2) Listed for informational purposes only.
- (3) See Fuel Monitoring Schedule in Specific Condition C.23.
- (b) In addition to the above conditions that were established by permit 0050014-002-AC, emissions units -004 and -005 are also independently subject to all of the emission standards and requirements of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. Particularly the NO<sub>X</sub> emission standard contained in 40 CFR 60.332(a)(1), which must be corrected to ISO conditions (see specific Condition C.34.).

[Rules 62-212.400, 62-204.800(7)(b) (Subpart GG and Da), 62-210.200 (Definitions-Potential Emissions) F.A.C.; and, 40 CFR 60 Subpart GG.]

# C.10. <u>Nitrogen Oxides (NO<sub>X</sub>) Emissions:</u>

- (a) Emissions of NO<sub>X</sub> in the stack exhaust gas, with the combustion turbine operating and the duct burner on shall not exceed 82.9 lb/hr (30 day rolling average). Emissions of NO<sub>X</sub> in the stack exhaust gas, with the combustion turbine operating with steam augmentation and the duct burner on shall not exceed 113.3 lb/hr (30 day rolling average). Compliance will be determined by the continuous emission monitor system (CEMS) and prorated daily as necessary based upon hours of operation per operating mode. Emissions of NO<sub>X</sub> in the stack exhaust gas with the combustion turbine operating with the duct burner on shall not exceed 82.9 lb/hr and 113.3 lb/hr with steam augmentation to be demonstrated by initial stack test.
- (b) Emissions of NO<sub>X</sub> from the duct burner shall not exceed 0.1 lb/MMBtu, which is more stringent than the NSPS (see Specific Condition C.51.).
- (c) When NO<sub>X</sub> monitoring data is not available, substitution for missing CEMS data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time. Heat input for these periods shall be determined by fuel sampling and measurement.
- (d) Facility-wide NO<sub>X</sub> emissions cap: In addition to individual (point source) emission limits and NO<sub>X</sub> averaging plan requirements, the Lansing Smith facility shall be required to comply with a facility-wide NO<sub>X</sub> emissions cap of 6,666 TPY. CEMS shall be the method of compliance. See Specific Condition C.48. & Facility-wide Condition 16. for reporting and record-keeping requirements.

[Rules 62-4.070 and 62-204.800(7), F.A.C. to avoid PSD Review; and, 0050014-002-AC.]

- C.11. Carbon Monoxide (CO) Emissions: Emissions of CO in the stack exhaust gas with the combustion turbine operating and duct burner on shall exceed neither 16 ppm nor 23 ppm (@ 15%O<sub>2</sub>) with steam augmentation to be demonstrated annually by stack test using EPA Method 10. {For informational purposes, this equates to 78.7 lb/hr and 116.6 lb/hr respectively} [Rule 62-212.400, F.A.C.; and, 0050014-002-AC.]
- C.12. <u>Volatile Organic Compounds (VOC) Emissions</u>: Emissions of VOC in the stack exhaust gas with the combustion turbine operating and duct burner on shall exceed neither 4 ppm nor 6 ppm (@ 15%O<sub>2</sub>) with steam augmentation to be demonstrated by initial stack test using EPA Method 18, 25 or 25A. {For informational purposes, this equates to 10.2 lb/hr and 16.8 lb/hr respectively} [Rule 62-212.400, F.A.C.; and, 0050014-002-AC.]
- C.13. Sulfur Dioxide (SO<sub>2</sub>) emissions: SO<sub>2</sub> emissions shall be limited by firing natural gas with a total sulfur content less than 2 grains per 100 standard cubic foot as determined and provided by the natural

gas pipeline transmission company. Compliance with this requirement in conjunction with implementation of the Custom Fuel Monitoring Schedule in Specific Condition C.23. will demonstrate compliance with the applicable NSPS SO<sub>2</sub> emissions limitations from the duct burner or the combustion turbine. {For informational purposes, annual SO<sub>2</sub> emissions will be up to 105 TPY} [40CFR60 Subpart GG; Rules 62-4.070, 62-212.400, & 62-204.800(7), F.A.C.; and, 0050014-003-AC.]

C.14. <u>Visible emissions (VE)</u>: VE emissions shall serve as a surrogate for PM/PM<sub>10</sub> emissions from the combustion turbine operating with or without steam augmentation and/or the duct burner and shall not exceed 10 percent opacity from the stack in use. PM/PM<sub>10</sub> emissions (for information only) are up to 43 lb/hr.

[Rules 62-4.070, 62-212.400, & 62-204.800(7), F.A.C.; and, 0050014-002-AC.]

# **Excess Emissions**

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

- C.15. Excess emissions resulting from startup, shutdown, or malfunction of any emissions unit 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.]
- C.16. 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. Such preventable emissions shall be included in the calculation of the 30-day rolling averages compiled by the continuous  $NO_X$  emissions monitor. [Rule 62-210.700(4), F.A.C.; and, 0050014-002-AC.]
- **C.17.** [Deleted due to duplication]

#### **Emissions Controls**

- C.18. Dry Low  $NO_X$  (DLN) combustors shall be maintained on the stationary combustion turbine and Low  $NO_X$  burners shall be maintained in the duct burner arrangement to comply with the  $NO_X$  emissions limits listed in Specific Conditions C.9. & C.10.
- [Rules 62-4.070 and 62-204.800(7), F.A.C. to avoid PSD Review; and, 0050014-002-AC.]
- C.19. DLN systems shall each be maintained as per manufacturer's recommendation. [Rule 62-4.070 and 62-204.800(7), F.A.C. to avoid PSD Review; and, 0050014-002-AC.]
- **C.20.** Drift eliminators shall be maintained on the cooling tower to reduce  $PM/PM_{10}$  emissions. [0050014-002-AC.]

### **Monitoring of Operations**

C.21. 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.

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[40 CFR 60.11(d)]

- **C.22.** 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:
- (a) 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.
- (b) 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).

[40 CFR 60.334(b)(1) & (2)]

[Permitting Note: Compliance with Specific Condition C.22. is being met through the use of the Natural Gas Monitoring Schedule contained in Specific Condition C.23.]

- C.23. <u>Natural Gas Monitoring Schedule</u>: 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 (monitoring of nitrogen content is not required):
- (a) The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
- (b) 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 pursuant to 40 CFR 75.11(d)(2).
- (c) 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.
- (d) 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).

Gulf shall notify DEP of any change in natural gas supply for reexamination of this monitoring schedule. A substantial change in natural gas quality (i.e., sulfur content variation of greater than 1 grain per 100 cubic foot of natural gas) shall be considered as a change in the natural gas supply. Sulfur content of the natural gas will be monitored weekly by the natural gas supplier during the interim period when this monitoring schedule is being reexamined.

[0050014-002-AC.]

# C.24. 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.

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(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.]

# **Continuous Monitoring Requirements**

C.25. Continuous Monitoring System: The permittee shall maintain and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from these units. Periods when NO<sub>X</sub> emissions are above the standards, listed in Specific Conditions C.9. & C.10., shall be reported to the DEP Northwest District Office within one working day (verbally) followed up by a written explanation postmarked not later than three (3) working days (alternatively by facsimile within one working day).

[Rules 62-204.800, 62-210.700, 62-4.130, 62-4.160(8), F.A.C.; 40 CFR 60.7 (1998 version); and, 0050014-002-AC.]

C.26. NO<sub>X</sub> CEMS Requirements for 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 30 day rolling average. 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. A valid operating day shall consist of at least one valid operating hour. These excess emissions periods shall be reported as required in Specific Condition C.49. Continuous compliance with the 0.1 lb/MMBtu limit for the duct burners will be demonstrated through continuous compliance with the combined duct burner and CT emission limits (see Specific Condition C.51.).

[Rule 62-4.070 and 62-204.800(7), F.A.C. to avoid PSD Review; and 0050014-002-AC.]

C.27. For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

[40 CFR 60.13(a)]

{Permitting Note: The requirements for the NO<sub>X</sub> CEMS which are installed and maintained in accordance with 40 CFR 75 are at least as stringent as the requirements of 40 CFR 60, and are an acceptable alternative to this condition.}

C.28. All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

[40 CFR 60.13(f)]

#### Required Tests, Test Methods and Procedures

{Permitting Note: The attached 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.29. <u>Annual Tests Required</u>. Annual emissions performance tests for CO and visible emissions from each combustion turbine shall be conducted when firing natural gas. Annual compliance with the applicable NO<sub>X</sub> emissions standards shall also be demonstrated with valid data collected by the required CEM systems during the required annual RATA at permitted capacity. Continuous compliance shall be demonstrated as specified in Specific Condition C.26.

Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>).

[Rule 62-297.310(7)(a)4, F.A.C.; and, 0050014-002-AC.]

- C.30. <u>Test Notification</u>: The DEP's Northwest District office shall be notified, in writing, at least 15 days prior to conducting annual compliance test(s).
- C.31. Compliance with the SO<sub>2</sub> and PM/PM<sub>10</sub> emission limits: Not withstanding 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> and PM<sub>10</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).

  [BACT; and, 0050014-002-AC.]
- C.32. Compliance with CO emission limit: An initial test for CO shall be conducted concurrently with the initial  $NO_X$  test, as required. The initial  $NO_X$  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  $NO_X$  CEMS required

pursuant to 40 CFR 75. As an alternative to annual testing in a given year, periodic tuning data may be provided to demonstrate compliance in the year the tuning is conducted. [0050014-002-AC.]

- C.33. Compliance with the VOC emission limit: An initial test was 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.

  [0050014-002-AC.]
- C.34. Compliance with the NSPS NO<sub>X</sub> emission limit: If requested, the test method for emissions of nitrogen oxides shall be EPA Reference Method 20. During performance tests, to determine compliance with the NSPS NO<sub>X</sub> standard, measured NO<sub>X</sub> emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_{x} = (No_{x0}) (Pr/Po)^{0.5} e^{19(Ho-0.00633)} (288°K/Ta)^{1.53}$$

where

 $NO_X$  = emission rate of  $NO_X$  at 15 percent  $O_2$  and ISO standard ambient conditions, volume percent.

 $No_{XO}$  = observed  $NO_X$  concentration, ppm by volume.

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

mm Hg.

 $P_0$  = observed combustor inlet absolute pressure at test, mm Hg.

 $H_0$  = observed humidity of ambient air, g  $H_2O/g$  air.

E = transcendental constant, 2.718.

 $T_a$  = ambient temperature, °K.

[40 CFR 60.335(c)(1); Rule 62-297.401, F.A.C.]

- C.35. <u>Performance Test Methods</u>: When required, compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.
- (a) EPA Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".
- (b) **EPA Method 10**, "Determination of Carbon Monoxide Emissions from Stationary Sources". (See Specific Condition **C.32**.)
- (c) **EPA Method 20**, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines" or **EPA Method 7E**, "Determination of Nitrogen Oxide Emissions from Stationary Sources".
  - Annual compliance with applicable NO<sub>X</sub> emissions standards shall also be demonstrated with valid data collected by the required CEM systems during required annual RATA at permitted capacity. Continuous compliance shall be demonstrated as specified in Specific Condition C.26.
- (d) EPA Methods 18, 25 and/or 25A, "Determination of Volatile Organic Concentrations."

No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C. [Rule 62-297.401, F.A.C.; and, 0050014-002-AC.]

- C.36. <u>Nitrogen Oxides</u>. To compute the emissions of nitrogen oxides, 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)]
- C.37. Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard. [40 CFR 60.11(a)]
- C.38. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

- C.39. The owner or operator shall provide, or cause to be provided, stack sampling and performance testing facilities as follows:
- (a) Sampling ports adequate for test methods applicable to such facilities.
- (b) Safe sampling platform(s).
- (c) Safe access to sampling platform(s).
- (d) Utilities for sampling and testing equipment.
- [40 CFR 60.8(e)(1), (2), (3) & (4)]
- C.40. 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. Permanent stack sampling facilities shall have been installed and shall be maintained on the stacks for these units in accordance with Rule 62-297.310(6), F.A.C.

[Rules 62-4.070, 62-204.800 & 62-297.310(6), F.A.C.; and, 0050014-002-AC.]

C.41. 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.42. Operating Rate During Testing/Testing procedures. 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 compressor inlet temperature during the test (with 100 percent represented by a curve depicting heat input vs. compressor inlet 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. compressor inlet temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for compressor inlet 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. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapter 62-204 and 62-297 F.A.C.

[Rules 62-297.310(2) & (2)(a), F.A.C.; and, 0970014-006-AC]

C.43. <u>Calculation of Emission Rate</u>. 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.44. 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 EPA 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) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

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

# TABLE 297.310-1 CALIBRATION SCHEDULE

<u>ITEM</u>	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually .	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually	Spirometer or calibrated wet test or dry gas test meter	2%
	3. Check after each test series	Comparison check	5%

**C.45.** <u>Frequency of Compliance Tests</u>. 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.
  - 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) <u>Special Compliance Tests</u>. 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.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance 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]

C.46. Tests After Substantial Modifications: All performance tests required for initial startup shall also be conducted after any substantial modification and appropriate shakedown period of air pollution control equipment including the replacement of dry low-NO<sub>X</sub> combustors. Shakedown periods shall not exceed 100 days after re-starting the combustion turbine.

[Rule 62-297.310(7)(a)4, F.A.C.; and, 0050014-002-AC.]

# Recordkeeping and Reporting Requirements

#### C.47. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:
  - 1. The type, location, and designation of the emissions unit tested.
  - 2. The facility at which the emissions unit is located.
  - 3. The owner or operator of the emissions unit.
  - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission-limiting standard.
  - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  - 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  - 8. The date, starting time and duration of each sampling run.
  - 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  - 10. The number of points sampled and configuration and location of the sampling plane.
  - 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  - 12. The type, manufacturer and configuration of the sampling equipment used.
  - 13. Data related to the required calibration of the test equipment.
  - 14. Data on the identification, processing and weights of all filters used.
  - 15. Data on the types and amounts of any chemical solutions used.
  - 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

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

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

# **SIP Requirements**

- C.48. CEMS for Reporting Facility-wide NO<sub>X</sub> Emissions: The NO<sub>X</sub> CEMS shall be used for ensuring compliance with the facility-wide cap. (See Facility-wide Condition 16.) [0050014-002-AC.]
- C.49. CEMS for reporting excess emissions: Subject to EPA approval, the NO<sub>X</sub> CEMS shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1998 version). Upon request from DEP, the CEMS emission rates for NO<sub>X</sub> on the CT's shall be corrected to ISO conditions to demonstrate compliance with the NO<sub>X</sub> standard established in 40 CFR 60.332. [0050014-002-AC.]
- C.50. Continuous Monitoring System Reports: 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.

  [0050014-002-AC.]
- C.51. Subpart Da Monitoring and Recordkeeping Requirements: The permittee shall comply with all applicable requirements of this Subpart [40CFR60, Subpart Da]. The requirements under 40 CFR 60.46a, 60.47a, 60.48a, and 60.49a regarding continuous monitoring systems for emissions of nitrogen oxides and for electrical output are inapplicable (due to impracticability) and therefore waived. [0050014-002-AC.]

- C.52. Quarterly Reports: Quarterly excess emission reports, in accordance with 40 CFR 60.7 (a)(7) (c) (1998 version), shall be submitted to the DEP's Northwest District Office. [0050014-002-AC.]
- C.53. Excess Emissions Report: If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify DEP's Northwest District office 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. Pursuant to the New Source Performance Standards, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels (in terms of applicable averaging periods) exceed the permitted standards listed in Specific Conditions C.9. C.14.

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C.; 40 CFR 60.7 (1998 version); and, 0050014-002-AC].

# **NSPS Requirements**

- **C.54.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:
  - (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

- C.55. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

  [40 CFR 60.7(b)]
- C.56. 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 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(c)(1), (2), (3), and (4)]

- C.57. 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(c) need not be submitted unless requested by the Administrator.
  - (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) and (2)]

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}

# C.58. Excess Emissions Reporting.

**7** .

- (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), 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). 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

granted.

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

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- (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) & (e)(2).

  [40 CFR 60.7(e)(1)]
- C.59. The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 (five) years following the date of such measurements, maintenance, reports, and records. These records shall be made available to DEP representatives upon request.

[40 CFR 60.7(f); Rules 62-4.160(14) & 62-213.440(1)(b)2.b., F.A.C.; and, 0050014-002-AC.]

C.60. Excess Emissions Reports: If excess emissions occur due to malfunction, the owner or operator shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. 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 standards specified in this permit. Within thirty (30) days following each calendar quarter, the permittee shall submit a report on any periods of excess emissions that occurred during the previous calendar quarter to the Compliance Authority. This quarterly report shall follow the format provided in Figure 1 (attached) and summarize periods of excluded NO<sub>X</sub> emissions data.

[Rules 62-4.130, 62-204.800 62-210.700(6) & 62-213.440, F.A.C.; and, 40 CFR 60.7.]

# Section IV. Acid Rain Part.

Operated by: Gulf power Company

ORIS Code: 643

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

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

# E.U. ID

No.	Description
-001	Boiler Number 1 - 1,944.8 MMBtu/hour
-002	Boiler Number 2 - 2,246.2 MMBtu/hour
-004	Combined Cycle Combustion Turbine Generator Unit No. 1 (CC-1)
-005	Combined Cycle Combustion Turbine Generator Unit No. 2 (CC-2)

- A.1. The Phase II permit applications, the Phase II  $NO_X$  compliance plans and the Phase II  $NO_X$  averaging plans submitted for this facility, as approved by the Department, are a part of this permit (included as Attachments). The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the applications listed below:
  - a. DEP Form No. 62-210.900(1)(a), F.A.C., dated 12/18/95 (Signed 12/8/95).
  - b. DEP Form No. 62-210.900(1)(a)4., F.A.C., dated 12/22/97 (Signed 12/18/97).
  - c. DEP Form No. 62-210.900(1)(a)5., F.A.C., dated 08/24/99 (Signed 8/17/99).
- d. DEP Form No. 62-210.900(1)(a), F.A.C., dated 03/27/00 (Signed 03/27/00).

[Chapter 62-213 and Rule 62-214.320, F.A.C.]

**A.2.** Sulfur dioxide ( $SO_2$ ) allowance allocations and nitrogen oxide ( $NO_X$ ) requirements for each Acid Rain unit are as follows:

E.U. ID #	EPA ID	Year	2000	2001	2002	2003	2004
-001	ID No. 01 Boiler 1	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR 73	6,476*	6,476*	6,476*	. 6,476*	6,476*
		NO <sub>x</sub> limit	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO emissions averaging plans for this unit. Each plan is effective for one calendar year for the 2000, 2001, 2002 2003 and 2004. Under each plan, this unit's NO emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.62 lb/MMBtu. In addition, this unit shall not have an annual heat input greater than 9,199,644 MMBtu.  Also, see Additional Requirements 1, 2 and 3, below.				

E.U. ID #	EPA ID	Year	2000	2001	2002	2003	2004
-002	ID No. 02 Boiler 2	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR 73	7,601*	7,601*	7,601*	7,601*	7,601*
-		NO <sub>x</sub> limit	Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves five (5) NO <sub>X</sub> emissions averaging plans for this unit. Each plan is effective for one calendar year for the 2000, 2001, 2002, 2003 and 2004. Under each plan, this unit's NO <sub>X</sub> emissions shall not exceed the annual average alternative contemporaneous emission limitation of <b>0.44</b> lb/MMBtu. In addition, this unit shall not have an annual heat input greater than 10,154,723 MMBtu.  Also, see Additional Requirements 1, 2 and 3, below.				
-004	4	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR 73	N/A	N/A	0	0	0
-005	5	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR 73	N/A	N/A	0	0	0

<sup>\*</sup>The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2, 3, or 4 of 40 CFR 73.

# Additional Requirements

1. Under the plan (NO<sub>X</sub> Phase II averaging plan), the actual Btu-weighted annual average NO<sub>X</sub> emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO<sub>X</sub> emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.

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- 2. In accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only after the Alabama Department of Environmental Management, the Jefferson County (Alabama) Department of Health, the Georgia Department of Natural Resources and the Mississippi Department of Environmental Quality, have also approved this averaging plan.
- 3. In addition to the described NO<sub>X</sub> compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO<sub>X</sub> compliance plan and requirements covering excess emissions.
- 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)1., 2. & 3., 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. [Rules 62-213.413 and 62-214.370(4), F.A.C.]
- **A.5.** Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.

[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

A.6. <u>Comments, notes, and justifications</u>: The Designated Representative has changed from Frederick Kuester to G. Edison Holland, Jr. to Robert G. Moore to Bill M. Guthrie to Charles D. McCrary to W. Paul Bowers.

The alternative designated representatives have been changed to include James O. Vick and Gene L. Ussery, Jr..

#### Reporting Requirements

- A.7. <u>Statement of Compliance</u>. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition 51, APPENDIX TV-4 TITLE V CONDITIONS} [Rule 62-214.420(11), F.A.C.]
- **A.8.** Demonstration of Compliance With the Phase II NO<sub>X</sub> Averaging Plan. The Designated Representative shall provide a copy of the demonstration of compliance, prepared in accordance with 40 CFR 76.11(d), to the Department within 60 (sixty) days after the end of the calendar year. [Rule 62-213.440, F.A.C.]

# Appendix I-1, List of Insignificant Emissions Units and/or Activities.

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Facility ID No.: 0050014

Gulf Power Company
Lansing Smith Electric Generating Plant

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.

	State Registration Number	<u>Contents</u>	Size (Gallons)
1.	Tank #1	#2 Diesel - Lighter Oil	25,000
2.	Tank #3	#2 Diesel - CT Fuel Oil	200,000
3.	Tank #4	#2 Diesel - CT Fuel Oil	200,000
4.	Tank #5	#2 Diesel - CT Fuel Oil	200,000
5.	Tank #6	Lube Oil	1,000
6.	Tank #7	Lube Oil	2,100
7.	Tank #8	Lube Oil	581
8.	Tank #9	Lube Oil	560
9.	Tank #10	Lube Oil	560
10.	Tank #11	Lube Oil	560
11.	Tank #12	Lube Oil	560
12.	Tank #13	Lube Oil	6,000
13.	Tank #14	Lube Oil	6,000
14.	Tank #15	Lube Oil	6,000
15.	Tank #16	Sulfuric Acid	4,000
16.		Maintenance Area, Used Oil	500
17.		Maintenance Area, Used Oil	500
18.		Used Oil	300
19.		Fire Pump Diesel Fuel (2)	
20.		Chlorine (12)	
21.	·	Used Oil	250
22.		Used Oil	500

Gulf Power Company
Lansing Smith Electric Generating Plant

Miscellaneous

- 23. Fire Safety Equipment Exempted by Rule 62-210.300(3)(a)22., F.A.C.
- 24. Vacuum Pumps Exempted by Rule 62-210.300(3)(a)9., F.A.C.
- 25. Laboratory Equipment Exempted by Rule 62-210.300(3)(a)15., F.A.C.
- 26. Welding Equipment Exempted by Rule 62-210.300(3)(a)16., F.A.C.
- 27. Gulf Power Company Generated Non-hazardous Boiler Chemical Cleaning Wastes (Not to exceed 50 gallons per minute)

# Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Gulf Power Company
Lansing Smith Electric Generating Plant

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<u>Unregulated Emissions Units and/or Activities</u>. 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

<u>No.</u>	Brief Description of Emissions Units and/or Activity
-007	Material Handling of Coal and Ash
-008	Fugitive PM Sources - On-site Vehicles
-009	General Purpose Internal Combustion Engines

- -007 <u>Material Handling of Coal and Ash.</u> Fugitive PM emissions generated from the transfer and handling of coal and ash. SCC: 3-05-101-03.
- -008 <u>Fugitive PM Sources</u>. Fugitive PM emissions generated by haul trucks and other on-site vehicles. SCC: 3-05-101-50.
- -009 <u>General Purpose Internal Combustion Engines</u>. Located for use at this source are miscellaneous internal combustion engines used to operate the following: welders, compressors, generators, water pumps, sweepers, and other auxiliary equipment.

# Appendix H-1, Permit History/ID Number Changes

(For Tracking Purposes Only)

Gulf Power Company Lansing Smith Electric Generating Plant Permit No.: 0050014-006-AV Facility ID No.: 0050014

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E.U.		·				
<u>ID No</u>	Description	Permit No.	Issue /	<b>Expiration</b>	<u>Extended</u>	Revised
			<b>Effective</b>	Date	Date	Date(s)
			Date			
-001	Lansing Smith #1 - Stack	AO03-211310	04/17/92	04/01/97		
-001	Eurong Smar #1 Stack	Secretarial ORDER <sup>1</sup>	10/18/85	0 1/ 0 1/ 5 /	•	
		Secretarial ORDER <sup>2</sup>	12/07/82			
				01/01/77	05/15/77	
		AC03-2023	02/10/75	01/01/77	05/15/77	
-002	Lansing Smith #2 - Stack	AO03-211310	04/17/92	04/01/97		
		Secretarial ORDER 1	10/18/85			
		Secretarial ORDER <sup>2</sup>	12/07/82			
		AC03-2024	02/10/75	01/01/77	05/15/77	
-003	Peaking Turbines A & B	AO03-249657	05/19/94	01/15/96		
-001 -	Initial Title V Permit	0050014-001-AV	01/01/00	12/31/04		
-003	mittai Title V I cillit	0030014-001-114	01/01/00	12/31/01		
	2 Combined avala CTs and	0050014-002-AC	07/28/00	12/31/02	06/30/03	
-004 -	2 Combined cycle CTs and	0030014-002-AC	07/28/00	12/31/02	00/30/03	
-006	cooling tower					
-004 -	Heat input revision	0050014-003-AC	06/14/02	06/14/02		
-006						
All	Authorization for CAM	0050014-004-AC	08/01/02	11/30/02		
	testing					
-002	Water wall replacement on	0050014-005-AC	10/18/02	07/01/03		
	Boiler No. 2			- · · - <b>-</b> · · - <b>-</b>		
-004 -	Title V revision to include	0050014-006-AV	??	12/31/04		
-004	new CTs	002001 <del>1-</del> 000-71	: :	12/31/04		
-006	new C18					

Secretarial ORDER issued to relax semi-annual PM testing requirement to annual.
 Secretarial ORDER issued to relax quarterly PM testing requirement to semi-annual.

# **Referenced Attachments**

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# Phase II Acid Rain Application/Compliance Plan

# Appendix A-1, Abbreviations, Definitions, Citations, and Identification Numbers

Appendix PA-1, Patrol Area

Appendix SO-1, Secretarial ORDER(s)

Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)

Appendix TV-4, Title V Conditions (version dated 2/12/02)

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

**Table 2-1, Compliance Requirements**