

# Florida Department of Environmental Protection

## Memorandum

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TO: Joseph Kahn, Division of Air Resource Management  
THROUGH: Trina Vielhauer, Bureau of Air Regulation *JA*  
Jon Holtom, Title V Section *JA*  
FROM: Tom Cascio *40M*  
DATE: December 22, 2009  
SUBJECT: Title V Air Operation Permit Revision No. 0730003-013-AV  
City of Tallahassee  
Arvah B. Hopkins Generating Station  
Final Title V Air Operation Permit Revision

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

The attached Final Determination identifies issuance of the draft/proposed Title V air operation permit revision, and summarizes the publication process. One minor comment was received from the applicant concerning an obsolete permit condition. The comment was administrative in nature and the permit was changed. There were no comments received from the public or EPA in response to the draft/proposed permit revision.

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

Attachments

## NOTICE OF FINAL PERMIT REVISION

*In the Matter of an  
Application for Permit Revision by:*

City of Tallahassee  
2602 Jackson Bluff Road  
Tallahassee, Florida 32304

Permit Revision No. 0730003-013-AV  
Arvah B. Hopkins Generating Station  
Title V Air Operation Permit Revision  
Leon County

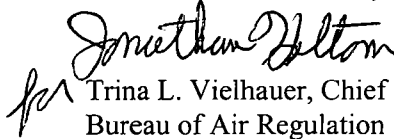
*Responsible Official:*

Mr. Robert E. McGarrah, Manager of Power  
Production

Enclosed is the final permit package to revise the Title V air operation permit for the Arvah B. Hopkins Generating Station. The existing facility is located in Leon County at 1125 Geddie Road, Tallahassee, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

  
for Trina L. Vielhauer, Chief  
Bureau of Air Regulation

TLV/jkh/tbc

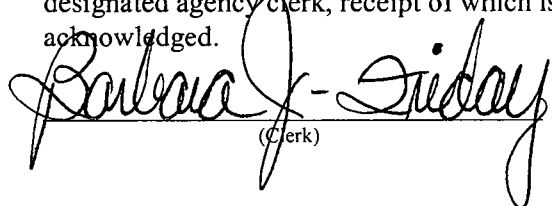
### CERTIFICATE OF SERVICE

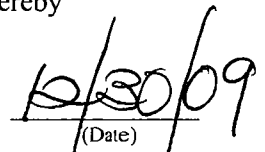
The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit Revision (including the Final Permit Revision and Final Determination), or a link to these documents available electronically on a publicly accessible server, was sent by electronic mail with received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

Mr. Robert E. McGarrah, City of Tallahassee: [Rob.McGarrah@talgov.com](mailto:Rob.McGarrah@talgov.com)  
Mr. Rick Bradburn, Northwest District Office: [rick.bradburn@dep.state.fl.us](mailto:rick.bradburn@dep.state.fl.us)  
Ms. Katy Forney, US EPA Region 4: [forney.kathleen@epa.gov](mailto:forney.kathleen@epa.gov)  
Ms. Ana Oquendo, US EPA Region 4: [oquendo.ana@epa.gov](mailto:oquendo.ana@epa.gov)  
Ms. Barbara Friday, DEP BAR: [barbara.friday@dep.state.fl.us](mailto:barbara.friday@dep.state.fl.us) (for posting with U.S. EPA, Region 4)  
Ms. Victoria Gibson, DEP BAR: [victoria.gibson@dep.state.fl.us](mailto:victoria.gibson@dep.state.fl.us) (for reading file)

Clerk Stamp

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

  
(Clerk)

  
(Date) 12/30/09

## PERMITTEE

City of Tallahassee  
2602 Jackson Bluff Road  
Tallahassee, Florida 32304

## PERMITTING AUTHORITY

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

## PROJECT

Permit No. 0730003-013-AV  
Arvah B. Hopkins Generating Station

The purpose of this project is to revise the Title V air operation permit for the above referenced facility to incorporate the specific conditions of air construction permit 0730003-009-AC for combined cycle Unit 2A.

## NOTICE AND PUBLICATION

The Department distributed an Intent to Issue a Title V Air Operation Permit Revision package on September 14, 2009. The applicant published the Public Notice of Intent to Issue a Title V Air Operation Permit Revision in the Tallahassee Democrat on September 18, 2009. The Department received the proof of publication on September 25, 2009. The intent package included a draft/proposed permit document.

## COMMENTS

### Applicant Comments

One comment was received from the applicant in a letter received on October 7, 2009, that addressed an obsolete specific condition in the draft/proposed permit.

**Comment.** Specific Condition **E.34.**, Initial Report on Startups, should be deleted as obsolete since the referenced report was submitted to the Department on August 13, 2009.

**Response.** The Department has the report on file, therefore, obsolete Specific Condition **E.34.** was removed from the draft/proposed permit.

### Other Comments

No comments on the draft/proposed permit were received from the public or the EPA Region 4 Office.

## CONCLUSION

The final action of the Department is to issue the permit with the minor administrative change as indicated above. Because all needed testing and reporting activities required by the compliance plan included in the draft/proposed permit have been performed, the plan (Appendix CP) was removed from the final permit.

This draft/proposed Title V air operation permit became a final Title V air operation permit on November 12, 2009 (Day 55) by operation of law pursuant to Section 403.0872, F.S.

# **STATEMENT OF BASIS**

City of Tallahassee  
Arvah B. Hopkins Generating Station  
Facility ID No. 0730003  
Leon County

Title V Air Operation Permit Revision  
Permit No. 0730003-013-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 operate the facility in accordance with the terms and conditions of this permit revision.*

The applicant has submitted an application to incorporate the specific conditions of air construction permit No. 0730003-009-AC for combined cycle Unit 2A into the facility's Title V air operation permit. See the discussion of emissions unit -033, below. Emissions Unit 2 has been permanently retired under the federal Acid Rain program. In this revision, a new Section E has been added to the facility's Title V air operation permit.

This facility consists of one fossil fuel-fired steam generator, two fossil fuel-fired combustion turbines, two simple cycle, inlet-chilled combustion turbines, complete with electrical generator sets, and a General Electric 7FA combined cycle unit. The two gas turbines are capable of producing a nominal 100 megawatts (MW) of electricity. The total (nominal) combined electrical generating capacity from the facility is 644.27 MW, of which 75 MW are provided by the one steam generator, 143.27 MW are provided by the four combustion turbines, and 426 MW are provided by the combined cycle unit. The fuels used at this facility are natural gas, fuel oil and on-specification used oil. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities. Details of the emissions units follow below.

Emissions unit number -001 is a Foster-Wheeler Corporation fossil fuel fired steam generator (model number SF-5) designated as "Boiler Number 1". It is rated at a maximum heat input of 903 million British thermal units (MMBtu) per hour when firing natural gas or fuel oil and a nominal 75 MW and 750,000 pounds of steam per hour.

Emissions unit number -002 is a combustion turbine manufactured by Westinghouse (model number W191G) and is designated as "Combustion Turbine Number 1". It is rated at a maximum heat input of 228 MMBtu/hour while being fueled by natural gas and/or No. 2 fuel oil with a maximum fuel oil sulfur content of 0.4%, by weight. Emissions unit number -003 is a combustion turbine manufactured by Westinghouse (model number W251G) and is designated as "Combustion Turbine Number 2". It is rated at a maximum heat input of 446 MMBtu/hour while being fueled by natural gas and/or No. 2 fuel oil with a maximum fuel oil sulfur content of 0.4%, by weight. Combustion Turbine Number 1 runs a nominal 16.47 MW generator and Combustion Turbine Number 2 runs a nominal 26.8 MW generator. Emissions from the combustion turbines are uncontrolled.

Emissions unit numbers -031 and -032 are General Electric LM 6000 Sprint simple cycle, inlet-chilled combustion turbines, complete with electrical generator sets. The gas turbines are capable of producing a nominal 100 MW (50 MW each). The turbines are permitted to fire 0.05% sulfur oil with natural gas as a back-up fuel. The units are equipped with selective catalytic reduction (SCR) systems for the reduction of nitrogen oxides (NO<sub>x</sub>) emissions and oxidation catalysts for the reduction of carbon monoxide (CO), volatile organic compounds (VOC), formaldehyde and non-methane/non-ethane emissions. The initial startup date for these units was July 31, 2005.

Emissions-unit number -033 consists of a General Electric 7FA combustion turbine, an automated combustion turbine control system, a heat recovery steam generator (HRSG), a gas-fired duct burner system, a HRSG stack, a bypass stack, and CO and NO<sub>x</sub> continuous emissions monitoring system (CEMS). The combustion turbine produces a nominal 188 MW and the HRSG is used to re-power the permanently retired Unit 2 steam turbine-electrical generator to produce a nominal 238 MW. In the combustion turbine, natural gas is fired as the primary fuel and distillate oil is fired as a restricted alternative fuel from on site storage tanks. Based on the higher heating value of each fuel and a compressor inlet temperature of 25° F, the design maximum heat input rates are 1,899 MMBtu per hour for gas firing and 2,079 MMBtu per hour for oil firing. Natural gas is the sole fuel for the duct burner system rated at a maximum heat input rate of 765 MMBtu per hour. Initial startup of the unit occurred on May 2, 2008.

Compliance Assurance Monitoring (CAM) does not apply to the units at this facility because there are no emissions limited emissions units using add-on control devices that do not have continuous emissions monitors used for continuous compliance determination.

Based on the Title V permit revision application received on October 31, 2008, this facility is a major source of hazardous air pollutants (HAP).

City of Tallahassee  
Arvah B. Hopkins Generating Station  
Facility ID No. 0730003  
Leon County

**Title V Air Operation Permit Revision**

**Final Permit No. 0730003-013-AV**

Revision of Title V Air Operation Permit No. 0730003-011-AV

**Permitting Authority**

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

Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114  
Fax: 850/921-9533

Title V Air Operation Permit Revision

Final Permit No. 0730003-013-AV

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# Florida Department of Environmental Protection

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

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

**PERMITTEE:**

City of Tallahassee  
300 South Adams Street  
Tallahassee, Florida 32301-1731

Permit Revision No. 0730003-013-AV  
Arvah B. Hopkins Generating Station  
Facility ID No. 0730003  
Title V Air Operation Permit Revision

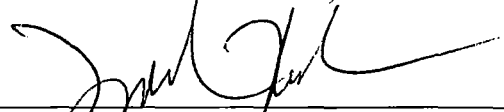
This permit revision is for the incorporation of the terms and conditions from permit No. 0730003-009-AC for combined cycle Unit 2A into the Title V permit for the continued operation of the existing Arvah B. Hopkins Generating Station. The facility is located at 1125 Geddie Road, Tallahassee, Leon County.

This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, 62-214, 62-296 and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility in accordance with the terms and conditions of this permit revision.

**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 on February 13, 2009  
Retired Unit Exemption Form signed by the designated representative on March 3, 2009  
Appendix GG, Standards of Performance for Stationary Gas Turbines  
Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)  
Appendix TV-6, Title V Conditions (version dated 6/23/06)  
ASP Number 97-B-01  
Scrivener's Order Correcting ASP Number 97-B-01 (dated July 9, 1997)  
Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring  
System Performance (40 CFR 60, July, 1996)  
Table 297.310-1 Calibration Schedule  
NSPS Subpart A  
NESHAP Subpart A  
Appendices A through F from permit No. 0730003-009-AC

Effective Date: January 1, 2008  
Revision Effective Date: November 12, 2009  
Renewal Application Due Date: May 20, 2012  
Expiration Date: December 31, 2012

  
\_\_\_\_\_  
Joseph Kahn, Director  
Division of Air Resource Management

JK/tlv/jkh/tbc



## **Section I. Facility Information**

### **Subsection A. Facility Description**

This facility consists of one fossil fuel-fired steam generator, two fossil fuel-fired combustion turbines, two simple cycle, inlet-chilled combustion turbines, complete with electrical generator sets, and a General Electric 7FA combined cycle unit. The two gas turbines are capable of producing a nominal 100 megawatts (MW) of electricity. The total (nominal) combined electrical generating capacity from the facility is 644.27 MW, of which 75 MW are provided by the one steam generator, 143.27 MW are provided by the four combustion turbines, and 426 MW are provided by the combined cycle unit. The fuels used at this facility are natural gas, fuel oil and on-specification used oil.

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

Based on the Title V permit revision application received October 31, 2008, this facility is a major source of hazardous air pollutants (HAP).

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

#### Regulated Emissions Units:

##### **E.U. ID**

##### **No. Brief Description**

- |      |  |
|------|--|
| -001 | Boiler Number 1: 903 million British thermal units per hour (MMBtu/hour)<br>(Phase II Acid Rain Unit)            |
| -002 | Combustion Turbine Number 1: 228 MMBtu/hour  |
| -003 | Combustion Turbine Number 2: 446 MMBtu/hour  |
| -004 | Boiler Number 2: 2,325 - 2,500 MMBtu/hour (Phase II Acid Rain Unit)<br>(Permanently Retired on February 9, 2008) |
| -031 | Combustion Turbine HC3: 445 MMBtu/hour (Phase II Acid Rain Unit)   |
| -032 | Combustion Turbine HC4: 445 MMBtu/hour (Phase II Acid Rain Unit)   |
| -033 | General Electric 7FA Combined Cycle Unit   |

#### Unregulated emissions Units and/or Activities (See Appendix U-1):

##### **E.U. ID**

##### **No. Brief Description**

- |      |  |
|------|--|
| -005 | Fugitive Volatile Organic Compound (VOC) Sources - Painting Operations |
| -006 | General Purpose Engines <sup>1</sup>                                   |
| -007 | Emergency Generators <sup>1</sup>                                      |
| -034 | 750 KW Emergency Diesel Generator <sup>1</sup>                         |

<sup>1</sup>Note: Appendix U-1 contains comments concerning applicability of new regulations for these emissions units.

***Please reference the Permit No., Facility ID No., and 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 February 13, 2009  
Retired Unit Exemption Form signed by the designated representative on March 3, 2009  
Appendix GG, Standards of Performance for Stationary Gas Turbines  
Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)  
Appendix TV-6, Title V Conditions (version dated 6/23/06)  
ASP Number 97-B-01  
Scrivener's Order Correcting ASP Number 97-B-01 (dated July 9, 1997)  
Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring  
System Performance (40 CFR 60, July, 1996)  
Table 297.310-1 Calibration Schedule  
NSPS Subpart A  
NESHAP Subpart A  
Appendices A through F from permit No. 0730003-009-AC

{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 Changes  
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  
Statement of Basis

These documents are on file with the permitting authority:

Title V Permit Revision Application received October 31, 2008

## **Section II. Facility-wide Conditions**

### **The following conditions apply facility-wide:**

1. Appendix TV-6, Title V Conditions (version dated 6/23/06), is a part of this permit.  
{Permitting Note: Appendix TV-6, Title V Conditions is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}
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 the Clean Air Act (CAA)).
  - a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 Code of Federal Regulations (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 10162  
Fairfax, VA 22038  
Telephone: (703) 227-7650

City of Tallahassee  
Arvah B. Hopkins Generating Station

Final Permit No. 0730003-013-AV  
Facility ID No. 0730003

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. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.

[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.

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

6. General Pollutant Emission Limiting Standards. 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.}

7. 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.]

8. Not federally enforceable. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. Concrete mixing in the portable concrete mixer shall be operated on an as-needed basis. Reasonable precautions include enclosing the activity wherever practical.
- b. Abrasive blasting activities that are associated with normal maintenance and corrosion control activities shall be enclosed where practical.
- c. Unconfined emissions associated with the limited on-site traffic shall be controlled by limiting vehicle speeds and unnecessary traffic within the plant grounds.
- d. Aggregate storage piles occur on a temporary basis associated with miscellaneous construction activities. Water is applied on an as-needed basis to control unconfined emissions from the handling and storage of the aggregate materials where practical.
- e. Spray applications of surface coatings are associated with normal maintenance and corrosion activities. The activities are enclosed whenever practicable.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by applicant in Title V permit renewal application received June 25, 2007.]

{Permitting note: This condition implements the requirements of Rules 62-296.320(4)(c)1., 3., & 4., F.A.C. (see Condition No. 57. of Appendix TV-6, Title V Conditions).}

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

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

10. The Department's Northwest District Branch Office (Tallahassee) telephone number for reporting problems, malfunctions or exceedances under this permit is 850/488-3704, day or night, and for emergencies involving a significant threat to human health or the environment is 850/413-9911. The Department's Northwest District Office (Pensacola) telephone number for routine business, including compliance test notifications, is 850/444-8364 during normal working hours.

11. 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  
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

12. 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

**Reporting Requirements**

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

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

14. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.  
[Rule 62-213.420(4), F.A.C.]

### **Section III. Emissions Units and Conditions**

#### **Subsection A. This section addresses the following emissions unit:**

E.U. ID	
No.	Brief Description
-001	Boiler Number 1 (Phase II Acid Rain Unit)

Emissions unit number 001 is a Foster-Wheeler Corporation fossil fuel fired steam generator (model number SF-5) designated as "Boiler Number 1". It is rated at a maximum heat input of 903 MMBtu/hour when firing natural gas or fuel oil and a nominal 75 MW (electric) and 750,000 pounds of steam per hour.

{Permitting notes: This emissions unit is regulated under Acid Rain, Phase II. This emissions unit pre-dates the Prevention of Significant Deterioration (PSD) regulations, but is regulated under Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 MMBtu/hour Heat Input. Stack height = 200 feet, exit diameter = 11.0 feet, exit temperature = 260.6 °F, actual volumetric flow rate per minute (ACFM) = 223,755 acfm. Emissions from this boiler are uncontrolled. This unit began commercial operation in May of 1971.}

**The following Specific Conditions apply to the emissions unit listed above:**

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

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

Unit No.	MMBtu/hr Heat Input	Fuel Type
-001	903	Natural Gas
	903	No. 2 - No. 6 Fuel Oil;
		On-Specification Used Oil

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

**A.2. Emissions Unit Operating Rate Limitation After Testing.** See Specific Condition **A.23.**  
[Rule 62-297.310(2), F.A.C.]

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

- Fuels.** The fuels that are allowed to be burned in this boiler are natural gas and/or new No. 2 through No. 6 fuel oil and/or on-specification used oil (See Specific Condition A.35.). In case of a natural gas curtailment, liquefied petroleum gas (LPG) may be used as an igniter fuel for the fuel oil.
- Other.** Fuel additives typically of a magnesium oxide, hydroxide, sulfonate, or calcium nitrate origin may be used.

[Rule 62-213.410, F.A.C. and Applicant request.]

**A.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, including a detailed account of the hours operated on each of the allowable fuels.

[Rule 62-210.200(PTE), F.A.C.; AO37-242825, Specific Condition #3.; and, applicant request.]

### **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 times for conditions **A.5. – A.10.** are based on the specified averaging time of the applicable test method.}

**A.5. Visible Emissions.** Visible emissions shall not exceed 20 percent opacity, except for one six-minute period per hour during which opacity shall not exceed 27 percent.

[Rule 62-296.405(1)(a), F.A.C. and applicant request.]

**A.6. Visible Emissions - Soot Blowing and Load Change.** 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.

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

**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.]

**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. Sulfur Dioxide.** When burning liquid fuel, sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 1.87 pounds per million Btu heat input, as measured by applicable compliance methods.

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

**A.10. Sulfur Dioxide.** For compliance purposes, the following limit supersedes the limit contained in Specific Condition A.9. SO<sub>2</sub> emissions shall not exceed 0.75 pound per million Btu heat input, as measured by applicable compliance methods. Any calculations used to demonstrate compliance shall be based solely on the heating value, quantities, and the percent sulfur of the liquid and gaseous fuels being



burned. (See Specific Conditions A.11. & A.21.)

[Rule 62-204.220 & .240, F.A.C.; AO37-242825 Specific Condition 4; and, Applicant request.]

**A.11. Fuel Sulfur.** Fuel sulfur content (percent, by weight) shall be determined by a fuel analysis representative of all "as-fired" fuels. Prior to burning any fuels in the boiler pursuant to this permit, receipts of the analyses of the existing fuels shall have been received by the City in order to use their values and calculate a maximum allowable fuel blend of natural gas and fuel oil. Upon subsequent fuel deliveries, if the vendor's delivery receipts indicate that the sulfur content of the delivered fuel is greater than the sulfur content established by the previous analysis, then a new maximum allowable fuel blend shall be calculated using the assumption that any future fuel fired contains the higher sulfur content. The resulting maximum allowable fuel blend shall be adhered to until such time that a more accurate analysis has been provided. If the vendor's delivery receipt indicates that the sulfur content of the delivered fuel is less than the sulfur content previously established, a new analysis is only necessary if the permittee wishes to adjust the previously established maximum allowable fuel blend. (See Specific Conditions A.10. and A.21.).

[Rules 62-4.070(3) & 62-296.405(1)(c)3., F.A.C. and Applicant Request.]

#### **Excess Emissions**

**A.12.** Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration.

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

**A.13.** 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.14.** 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 this unit: Gas Fuel Flow, Oil Fuel Flow, Nitrogen Oxides (NO<sub>x</sub>) and Carbon Dioxide (CO<sub>2</sub>).}

**A.15. Sulfur Dioxide.** The permittee elected to demonstrate compliance using fuel sampling and analysis. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See Specific Conditions A.11. and A.21. of this permit.

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

**A.16. Determination of Process Variables.**

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

**Test Methods and Procedures**

{Permitting Note: 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.17. Visible emissions.** The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. A transmissometer may be used and calibrated according to Rule 62-297.520, F.A.C. See Specific Condition A.18.

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

**A.18. DEP Method 9.** The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

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

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

[Rule 62-297.401(9)(c), F.A.C.]

**A.19. 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 at 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 62-296.405(1)(e)2. and 62-297.401, F.A.C.]

**A.20. Sulfur Dioxide.** The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that 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. The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by using fuel sampling and analysis. See Specific Conditions A.11. and A.21.

[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. & 62-297.401, F.A.C.; and, Permit No. AO37-242825.]

**A.21.** 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 and to provide the necessary values needed to calculate a maximum allowable fuel blend:

- a. Establish and maintain a record of the sulfur content (percent, by weight) of the "as-fired" fuel oil using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or equivalent, to analyze a representative sample of the blended fuel following each fuel delivery. This record may be maintained either by;
  - 1) retaining the delivery receipts that are provided by the fuel oil vendor (which indicates that the proper ASTM test methods have been followed) each time a fuel oil delivery is received, or;
  - 2) by "as-fired" sample results provided by the permittee.
- b. Establish and maintain a record of the sulfur content of the "as-fired" natural gas using either ASTM D1072-90(94)E-1, ASTM D3031-81(86), ASTM D3246-92, ASTM D4084-94, ASTM D5504-94, or equivalent. This record may be maintained either by;
  - 1) retaining delivery receipts provided by the natural gas vendor (which indicates that the proper ASTM test methods have been followed and which shall be provided, at a minimum, each time there is a measurable increase in the sulfur content of the natural gas), or;
  - 2) by on-site sample results provided by the permittee, or;
  - 3) by utilizing the FERC Tariff guaranteed maximum sulfur content of 10 grains per 100 cubic feet of natural gas as a "default value".

- c. Establish and maintain a record of either the density (using ASTM D 1298-80, or equivalent), or the mass, and the calorific heat value in Btu per pound (using ASTM D 240-76, or equivalent), of the fuel oil combusted. This record may be maintained either by;
  - 1) retaining the delivery receipts that are provided by the fuel oil vendor (which indicates that the proper ASTM test methods have been followed) each time a fuel oil delivery is received, or;
  - 2) by on-site sample results provided by the permittee, or;
  - 3) by utilizing data provided by a certified continuous mass flow monitor in accordance with 40 CFR 75, Appendix D.
- d. Record daily the amount of each fuel fired, the sulfur content (percent, by weight) of each fuel, either the density or mass of the fuel oil, and the calorific heat value of each fuel. For all fuels fired, the highest value for any parameter (i.e., density, calorific heat value, etc.) that has been established by the vendor's receipt shall be utilized until an as-fired fuel analysis is received to establish a new value for the parameter in question.
- e. Utilize the information in a., b. c. and d., 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. & 62-297.440, F.A.C.; and, Applicant Request.]

### **Compliance Test Requirements**

**A.22. 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.23. 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.24. Operating Conditions During Testing.** If particulate matter and visible emissions tests are required, the tests shall be conducted concurrently and shall be performed using the maximum fuel oil to natural gas ratio that can be fired while meeting the standards.  
[Rule 62-4.070(3), F.A.C. and Applicant request.]

**A.25. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.  
[Rule 62-297.310(3), F.A.C.]

**A.26. Applicable Test Procedures.**

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (see attached Table 297.310-1 Calibration Schedule).

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

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

**A.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. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid for more than 400 hours other than during startup.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
  - a. Did not operate; or
  - b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
  - a. Visible emissions, if there is an applicable standard (see Specific Condition A.29.);
  - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
  - c. Each NESHAP pollutant, if there is an applicable emission standard.
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours (see Specific Condition A.30.).
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(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.]

**A.29. Visible Emissions Testing - Annual.** By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

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

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

**A.30. Particulate Matter Testing - Annual and Permit Renewal.** Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

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

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]

### **Recordkeeping and Reporting Requirements**

**A.31.** The owner or operator shall maintain continuous 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 conditions of this permit.

[Rule 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. Quarterly Reports.** 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. Test Reports.**

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
  2. The facility at which the emissions unit is located.
  3. The owner or operator of the emissions unit.
  4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  8. The date, starting time and duration of each sampling run.
  9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  10. The number of points sampled and configuration and location of the sampling plane.
  11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  12. The type, manufacturer and configuration of the sampling equipment used.
  13. Data related to the required calibration of the test equipment.
  14. Data on the identification, processing and weights of all filters used.
  15. Data on the types and amounts of any chemical solutions used.
  16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  18. All measured and calculated data required to be determined by each applicable test procedure for each run.
  19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
  20. The applicable emission standard, and the resulting maximum allowable emission rate for the 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.35. Used Oil.** 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.

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 the City of, not to exceed 10,000 gallons during any calendar year.
- c. PCB Limitation. 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. Testing Requirements. 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).

In addition to the above requirements, 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 approved test methods.

- 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.
  - (2) Results of the analyses of each deposit of used oil, as required by the above conditions.
  - (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.

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

City of Tallahassee  
Arvah B. Hopkins Generating Station

Final Permit No. 0730003-013-AV  
Facility ID No. 0730003

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

<b><u>E.U. ID No.</u></b>	<b><u>Brief Description</u></b>
-004	Boiler Number 2 (Phase II Acid Rain Unit) (Permanently Retired)

[Reserved.]

**Subsection C. This section addresses the following emissions units:**

E.U. ID

No.	Brief Description
-002	Combustion Turbine Number 1
-003	Combustion Turbine Number 2

Emissions unit number 002 is a combustion turbine manufactured by Westinghouse (model number W191G) and is designated as "Combustion Turbine Number 1". It is rated at a maximum heat input of 228 MMBtu/hour while being fueled by natural gas and/or No. 2 fuel oil with a maximum fuel oil sulfur content of 0.4%, by weight. Emissions unit number 003 is a combustion turbine manufactured by Westinghouse (model number W251G) and is designated as "Combustion Turbine Number 2". It is rated at a maximum heat input of 446 MMBtu/hour while being fueled by natural gas and/or No. 2 fuel oil with a maximum fuel oil sulfur content of 0.4%, by weight. Combustion Turbine Number 1 runs a nominal 16.47 MW generator and Combustion Turbine Number 2 runs a nominal 26.8 MW generator. Emissions from the combustion turbines are uncontrolled.

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. These units are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. Each combustion turbine has its own stack. Combustion Turbine Number 1: Stack height = 29 feet, exit diameter = 9.2 feet, exit temperature = 802.4 °F, actual volumetric flow rate = 456,297.2 acfm. Combustion Turbine Number 2: Stack height = 30 feet, exit diameter = 14.7 feet, exit temperature = 874.4 °F, actual volumetric flow rate = 707,144.2 acfm. Combustion Turbine Number 1 began commercial operation in February of 1970, Combustion Turbine Number 2 began commercial operation in September of 1972.}

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

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

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

Unit No.	MMBtu/hr Heat Input	Fuel Type
-002( CT #1)	228 (LHV @ 80 degrees Fahrenheit)	Natural Gas
	228 (LHV @ 80 degrees Fahrenheit)	No. 2 Fuel Oil
-003 (CT #2)	446 (LHV @ 80 degrees Fahrenheit)	Natural Gas
	446 (LHV @ 80 degrees Fahrenheit)	No. 2 Fuel Oil

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

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

**C.3. Methods of Operation.**

- Fuels. Only natural gas and/or new No. 2 fuel oil shall be fired in these turbines.
- Other. Fuel additives typically of a magnesium oxide, hydroxide, sulfonate, or calcium nitrate origin may be used.

[Rule 62-213.410, F.A.C. and Applicant request.]

**C.4. Hours of Operation.** Combustion Turbine Number 1 may operate 8,491 hours per year. Combustion Turbine Number 2 may operate 7,071 hours per year. The Permittee shall maintain an operation log available for Department inspection that documents the total hours of operation annually.  
[Rule 62-210.200, F.A.C., (PTE) and Permit No. AO37-242824 Specific Condition number 3.]

#### **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.}

**C.5. Visible Emissions.** 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 Permit No. AO37-242824.]

{Permitting note: The averaging time for this condition is based on the averaging time of the applicable test method.}

**C.6. Not federally enforceable. Sulfur Dioxide – Fuel Oil Sulfur Content.** The sulfur content of the No. 2 fuel oil shall not exceed 0.4 percent, by weight. See Specific Condition C.12.  
[Permit No. AO37-242824 and applicant request.]

#### **Excess Emissions.**

**C.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.]

**C.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**

**C.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 C.6. and C.12.  
[Rule 62-213.440, F.A.C.]

**C.10. Determination of Process Variables.**

- (a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

### **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.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.]

**C.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.]

**C.13. Operating Rate During Testing.** Testing of emissions shall be conducted with each emissions unit operating at permitted capacity, which is defined as 90-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 110 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

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

**C.14. Applicable Test Procedures.**

(a) **Required Sampling Time.**

- 2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period

during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

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

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

**C.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 (see Specific Condition C.16.);
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

[Rule 62-297.310(7), F.A.C.; Permit No. AO65-242827, Specific Condition #5 (frequency); and, SIP Approved.]

**C.16. Visible Emissions Testing - Annual.** By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuels; or,
- b. gaseous fuels in combination with any amount of liquid fuels for less than 400 hours per year; or,
- c. only liquid fuels for less than 400 hours per year.

[Rules 62-297.310(7)(a)4. & 8., F.A.C.]

**Recordkeeping and Reporting Requirements**

**C.17. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

**C.18. 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.]



**Subsection D. This section addresses the following emissions units:**

**E.U. ID No.    Brief Description**

- |      |  |
|------|--|
| -031 | Combustion Turbine – Unit Number HC3 (Phase II Acid Rain Unit) |
| -032 | Combustion Turbine – Unit Number HC4 (Phase II Acid Rain Unit) |

This section addresses two General Electric LM 6000 Sprint simple cycle, inlet-chilled combustion turbines, complete with electrical generator sets. The gas turbines are capable of producing a nominal 100 MW of electricity (50 MW each). The turbines are permitted to fire 0.05% sulfur oil with natural gas as a back-up fuel. The units are equipped with selective catalytic reduction (SCR) systems and water injection for the reduction of Nitrogen Oxides (NO<sub>x</sub>) emissions and oxidation catalysts for the reduction of Carbon Monoxide (CO), Volatile Organic Compounds (VOC), formaldehyde and Non-Methane/Non-Ethane emissions. The initial startup date for these units was July 31, 2005.

{Permitting notes: These emissions units are regulated under New Source Performance Standards (NSPS) - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (1997 version), adopted and incorporated by reference in Rule 62-204.800(7)(b)38., F.A.C.; Air Construction Permit No. 0730003-005-AC; PSD-FL-343, Prevention of Significant Deterioration (PSD), in Rule 62-212.400, F.A.C.; and, Best Available Control Technology (BACT), in Rule 62-212.410, F.A.C. Emissions Units 031 and 032 are subject to Acid Rain, Phase II. Stack height = 85 feet; exit diameter = 10 feet; exit temperature = 825°F; actual volumetric flow rate = 601,200 acfm.

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

**General**

**D.1.    Definitions.** For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.  
[40 CFR 60.2; and, Rule 62-204.800(7)(a), F.A.C.]

**D.2.    Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. 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; Rule 62-210.650, F.A.C.; and, Permit No. 0730003-005-AC / PSD-FL-343]

**D.3.    Modifications.** The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the

change; and the anticipated completion date of the change.  
[40 CFR 60.14 and Permit No. 0730003-005-AC / PSD-FL-343]

**D.4. NSPS Requirements.** In addition to the emissions limits, record keeping, and reporting requirements listed below, the permittee is also required to comply with all applicable requirements of 40 CFR 60, adopted by reference in Rule 62-204.800(7)(b), F.A.C.

(a) **Subpart A, General Provisions**, including:

- 40 CFR 60.7, Notification and Record Keeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements

(b) **Subpart GG, Standards of Performance for Stationary Gas Turbines:** These provisions include a requirement to correct test data to ISO conditions; however, such correction is not used for compliance determinations with the BACT standards. (See attached Appendix GG - Standards of Performance for Stationary Gas Turbines.)

[40 CFR 60, Subpart GG and 62-213.440, F.A.C.]

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

**D.5. Permitted Capacity.** The heat input to each combustion turbine from firing natural gas shall not exceed 445 MMBtu/hour based on the following: 100% base load, a lower heating value (LHV) for natural gas and a compressor inlet air temperature of 29° F. The heat input to each combustion turbine from firing No. 2 fuel oil shall not exceed 434 MMBtu/hour based on the following: 100% base load, LHV and a compressor inlet air temperature of 29° F. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. Heat input rates will vary depending upon compressor conditions and the combustion turbine characteristics. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves on file with the Department.

[Design, Rule 62-210.200, F.A.C. (Definition - PTE); and, Permit No. 0730003-005-AC / PSD-FL-343]

**D.6. Simple Cycle, Intermittent Operation.** Each combustion turbine shall operate only in simple cycle mode not to exceed the permitted hours of operation allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD applicability and BACT determination and resulted in the emission standards specified in this permit. For any request to convert this unit to combined cycle operation by installing/connecting to heat recovery steam generators or increasing the allowable hours of operation, including changes to the fuel quality or quantity which may cause an increase in short or long-term emissions, the permittee may be required submit a full PSD permit application complete with a new proposal of the best available control technology as if the unit had never been built.

[Rules 62-212.400(2)(g) and 62-212.400(6)(b), F.A.C.; and, Permit No. 0730003-005-AC / PSD-FL-343]

**D.7. Emissions Unit Operating Rate Limitation After Testing.** See Specific Condition **D.34.**

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

**D.8. Methods of Operation - Allowable Fuels.** Each combustion turbine shall only be fired with natural gas containing no more than 2 grains of sulfur per 100 dry standard cubic feet of gas (monthly average) and 0.05% sulfur distillate oil (or superior). The permittee shall demonstrate compliance with the fuel sulfur limit by keeping the records specified in this permit.

[Rule 62-210.200, F.A.C. (Definition - PTE) and Permit No. 0730003-005-AC / PSD-FL-343]

**D.9. Hours of Operation.** Each combustion turbine shall operate no more than 5840 hours during any consecutive 12-month period, 4,000 of which may be on distillate fuel oil. The permittee shall have installed, shall keep calibrated, and shall operate and maintain a monitoring system to measure and accumulate the hours of operation.

[Rule 62-212.400, F.A.C. (BACT); Rule 62-210.200, F.A.C. (PTE); and, Permit No. 0730003-005-AC / PSD-FL-343]

### **Emissions Controls**

**D.10. Water Injection Technology.** The permittee shall install, calibrate, tune, operate, and maintain a water injection system for the unit. The system shall be designed and operated so as to ensure that NO<sub>x</sub> emissions prior to the SCR are sufficient to achieve the NO<sub>x</sub> emission limits in Specific Condition **D.11.**

[Rule 62-4.070(3); Rule 62-212.400, F.A.C. (BACT); and, Permit No. 0730003-005-AC / PSD-FL-343]

**D.11. SCR/Oxidation Catalyst.** To control NO<sub>x</sub> and CO emissions, the combustion turbine shall include an SCR system and an oxidation catalyst. The catalyst systems shall be designed in order to achieve the following emissions, regardless of fuel being combusted: 5 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> and 6 ppmvd CO @ 15% O<sub>2</sub>.

[Design and Rule 62-212.400, F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

### **Emission Limitations and Standards**

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms (attached), 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 **D.12.** – **D.17.** are based on the specified averaging time of the applicable test method.}

{Permitting note: The following table summarizes the emissions standards for each pollutant and total emissions in lb/hr and TPY for informational and convenience purposes (PTE) only. This table does not supersede any of the terms or conditions of this permit.

Pollutant	Emission Standard	CT Emissions (lb/hr)		One CT (lb/year)	TPY for 2 CT's
		OIL	GAS		
NO <sub>x</sub>	5 ppmvd @ 15% O <sub>2</sub>	8.67	8.62	50,541	50.5
CO	6 ppmvd @ 15% O <sub>2</sub>	6.35	6.27	36,937	36.9
SO <sub>2</sub>	NG & 0.05% S oil	10.31	1.13	43,319	43.4
PM <sub>10</sub>	VE	14.94	2.45	64,268	64.2

Pollutant	Emission Standard	CT Emissions (lb/hr)		One CT (lb/year)	TPY for 2 CT's
		OIL	GAS		
PM	VE	14.94	2.45	64,268	64.2
VOC	3 ppmvd @ 15% O <sub>2</sub>	2.66	1.79	13,934	13.9
SAM	NG & 0.05% S oil	9.66	1.15	40,756	40.8

*Note: Annual emissions, for the purposes of this table only, are based on 4000 hours of oil operation and 1840 hours of natural gas operation.*

(End of Permitting Note).}

**D.12. Carbon Monoxide (CO).** CO emissions from the combustion turbine shall not exceed 6.0 ppmvd corrected to 15% oxygen for each fuel. The permittee shall demonstrate compliance with this standard by conducting performance tests and emissions monitoring in accordance with EPA Method 10 and the requirements of this permit.

[Rule 62-212.400, F.A.C. (PSD Avoidance) and Permit No. 0730003-005-AC / PSD-FL-343]

**D.13. Nitrogen Oxides (NO<sub>x</sub>).** NO<sub>x</sub> emissions from the combustion turbine shall not exceed 5.0 ppmvd corrected to 15% oxygen for each fuel. The permittee shall demonstrate compliance with this standard by conducting performance tests and emissions monitoring in accordance with 40 CFR Part 60 Subpart GG and based on a 24-hour block average for data collected from the continuous emissions monitor.

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

**D.14. Ammonia.** The ammonia slip rate shall be limited to 10 ppmvd @ 15% O<sub>2</sub>.

[Rule 62-212.400, F.A.C. (BACT) and Permit No. 0730003-005-AC / PSD-FL-343]

**D.15. Particulate Matter (PM/PM<sub>10</sub>), Sulfuric Acid Mist (SAM) and Sulfur Dioxides (SO<sub>2</sub>).** Fuel Specifications. Emissions of PM, PM<sub>10</sub>, SAM, and SO<sub>2</sub> shall be limited by the use of pipeline-quality natural gas containing no more than 2 grain per 100 standard cubic feet, the use of 0.05% Sulfur oil, and good combustion techniques as specified in this permit. The permittee shall demonstrate compliance with the fuel sulfur limit by maintaining the records specified by this permit.

[Rule 62-212.400, F.A.C. (PSD Applicability) and Permit No. 0730003-005-AC / PSD-FL-343]

**D.16. Visible Emissions.** Visible emissions from the combustion turbine shall not exceed 10% opacity, based on a 6-minute average. This work practice standard is established as a means of ensuring the non-applicability of BACT. The permittee shall demonstrate compliance with this standard by conducting tests in accordance with EPA Method 9 and the performance testing requirements of this permit.

[Rule 62-212.400, F.A.C. (PSD Applicability) and Permit No. 0730003-005-AC / PSD-FL-343]

**D.17. Volatile Organic Compounds (VOC).** VOC emissions from the combustion turbine shall not exceed 3.0 ppmvd corrected to 15% oxygen for each fuel. The VOC emissions shall be measured and reported in terms of methane. The permittee shall demonstrate compliance with these standards by conducting initial tests in accordance with EPA Methods 25 and/or 25A and the performance testing requirements of this permit. Optional testing in accordance with EPA Method 18 may be conducted to account for the actual methane fraction of the measured VOC emissions.

[Application, Design; Rule 62-4.070(3), F.A.C.; and, Permit No. 0730003-005-AC / PSD-FL-343]

### **Excess Emissions**

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

**D.18. Excess Emissions Prohibited.** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited. These emissions shall be included in the calculation of the 24-hour averages to demonstrate compliance with the continuous NO<sub>x</sub> emissions standard.

[Rule 62-210.700(4), F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.19. Excess Emissions Allowed.** Providing the permittee adheres to best operational practices to minimize the amount and duration of excess emissions, the following conditions shall apply:

- (a) During startup and shutdown, visible emissions excluding water vapor shall not exceed 20% opacity for more than 120 minutes in any 24-hour period.
- (b) The continuous emissions monitoring system (CEMS) shall monitor and record emissions during all periods of operation including startups, shutdowns, fuel switches, tuning sessions, and malfunctions.
- (c) Up to 45 minutes of NO<sub>x</sub> CEMS data may be excluded due to a startup when demonstrating compliance with the NO<sub>x</sub> BACT emissions standard.
- (d) Up to 15 minutes of NO<sub>x</sub> CEMS data may be excluded due to a shutdown when demonstrating compliance with the NO<sub>x</sub> BACT emissions standard.
- (e) Up to 15 minutes of NO<sub>x</sub> CEMS data may be excluded due to a fuel switch when demonstrating compliance with the NO<sub>x</sub> BACT emissions standard.
- (f) To maintain efficient operation, it is necessary to periodically tune the dry low-NO<sub>x</sub> combustion, water injection, and/or selective catalytic reduction (SCR) systems. Provided the tuning sessions are performed according to manufacturer or industry specifications, NO<sub>x</sub> CEMS data may be excluded due to such tuning sessions. A tuning session would occur after equipment replacement, repair, or as required to maintain proper operation of the combustor, water injection or SCR systems. At least one day prior to performing a tuning session, the permittee shall notify the Compliance Authority with details of the activity and the proposed schedule. The notice may be made by telephone, facsimile transmittal, or electronic mail.
- (g) Up to 120 minutes of NO<sub>x</sub> CEMS data during any 24-hour period may be excluded due to documented malfunctions when demonstrating compliance with the NO<sub>x</sub> BACT emissions standard. A documented malfunction means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile, or electronic mail. In case of malfunctions, the permittee shall notify the Compliance Authorities within one working day. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

As limited above, only those periods of data directly attributable to startup, shutdown, malfunction, fuel switching, or tuning shall be excluded from any compliance demonstration. No monitoring data shall be excluded when demonstrating compliance with the NSPS Subpart GG emissions standards. All valid data shall be used to report annual emissions.

[Rules 62-210.700(1) & (5), 62-4.130, F.A.C ; Permit No. 0730003-005-AC / PSD-FL-343; and Permit No. 0730003-010-AC / PSD-FL-343A]

**D.20.** At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

### **Continuous Monitoring Requirements**

**D.21. NO<sub>x</sub> CEMS:** The permittee shall have installed and calibrated, and shall operate and maintain a CEMS to measure and record NO<sub>x</sub> and oxygen concentrations in the combustion turbine exhaust stack. A monitor for carbon dioxide may be used in place of the oxygen monitor, but the system shall be capable of correcting the emissions to 15% oxygen. The NO<sub>x</sub> monitoring devices shall comply with the requirements of 40 CFR 60.334(b) for 40 CFR Part 75 monitoring systems. A monitoring plan shall be provided to the Department's Emissions Monitoring Section Administrator, EPA Region 4, and the Compliance Authority for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62. The plan shall consist of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location.

[Rule 62-212.400, F.A.C. (BACT); 40 CFR 75; and, Permit No. 0730003-005-AC / PSD-FL-343]

**D.22. NO<sub>x</sub> CEMS Data Requirements:**

- (a) Installation. The CEMS shall be installed, calibrated, and properly functioning prior to the initial performance tests. Each device shall comply with the applicable monitoring system requirements of 40 CFR 60.7(a)(5), 40 CFR 60.13, and 40 CFR 60.334(b).
- (b) Data Collection. Emissions shall be monitored and recorded at all times including startup, operation, shutdown, and malfunction except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. Each valid 1-hour average shall be calculated using at least two valid data points at least 15 minutes apart.
- (c) Data Reporting: Data collected by the CEMS shall be used to demonstrate compliance with the emissions standards specified for each 24-hour block average. Emissions shall be reported in units of ppmvd corrected to 15% oxygen for each hour of operation. The compliance averages shall be determined by calculating the arithmetic average of a 24-hour block of valid hourly emission rates. When a monitoring system reports emissions in excess of the standards allowed by this permit, the permittee shall notify the Compliance Authority within one (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. The Department may request a written report summarizing the excess emissions incident. The permittee shall also report excess emissions in a quarterly report as required in Specific Condition D.43. of this permit.
- (d) Data Exclusion. Unless prohibited by 62-210.700 F.A.C., valid hourly emission rates shall not include periods of start up, shutdown, or documented malfunction as described under the excess emissions requirements of this permit.

[Rules 62-4.130, 62-4.160(8), 62-204.800, 62-210.700, 62-297.520, F.A.C.; 40 CFR 60.7; and, Permit No. 0730003-005-AC / PSD-FL-343]

### **Required Tests, Test Methods and Procedures**

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

**D.23. Annual Performance Tests.** To demonstrate compliance with the emission standards specified in this permit, the permittee shall conduct annual performance tests for NO<sub>x</sub>, CO, and visible emissions from the combustion turbine for each fuel. Testing for ammonia slip is required during the first scheduled annual performance tests after the cumulative hours of operation on each combustion turbine exceed 1,500 hours of oil firing or 5,000 hours of gas firing starting from the initial installation of the SCR catalysts. Thereafter, ammonia testing is required during the first scheduled annual performance tests after subsequent cumulative 1,500 hours of oil firing and 5,000 hours of gas firing in each combustion turbine or after regeneration, replacement or addition to the SCR catalyst system. If conducted at permitted capacity, NO<sub>x</sub> emissions data collected during the annual NO<sub>x</sub> continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the required annual performance test. 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>). In the event that the operation of the CT is less than 400 hours per year on natural gas or distillate oil, annual testing is not required for that year and that fuel.

[Rule 62-297.310(7)(a), F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.24. Tests Prior to Permit Renewal.** Prior to renewing the air operation permit, the permittee shall conduct performance tests for CO, NO<sub>x</sub>, and visible emissions from the combustion turbine. VOC emission tests are not required prior to permit renewal provided the CO emission standards are met. Testing for ammonia slip meeting the requirements of Specific Condition D.23., Annual Performance Tests, will meet the requirements of this condition. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision.

[Rule 62-297.310(7)(a)3., F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.25. Tests After Major Repairs or Replacements.** The Department may require that additional compliance testing be conducted within 90 days after major repairs or replacements are performed.

[Rule 62-297.310(7)(a)4., F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.26. Performance Test Methods.** 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;
- (h) EPA Method 7e - Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure); or EPA Method 20 - Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines; or ASTM D6522-00 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers and Process Heaters Using Portable Analyzers, as specified in 40 CFR 60.335;
- (i) EPA Method 25 or 25A - Determination of Volatile Organic Concentrations. (EPA Method 18 may be conducted to account for the non-regulated methane portion of the VOC emissions); and
- (j) Conditional Test Method 027 – Measurement of Ammonia Slip.

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 specified in Rule 62-297.620, F.A.C.  
[Permit No. 0730003-005-AC / PSD-FL-343]

**D.27. Nitrogen Oxides.** To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.  
[40 CFR 60.335(a).]

**D.28. Nitrogen and Sulfur Contents.** To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335(a) and 40 CFR 60.335(d) of 40 CFR 60.335 to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.  
[40 CFR 60.335(e).]

**D.29. General.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.  
[40 CFR 60.11(a).]

**D.30.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.  
[40 CFR 60.8(c).]

**D.31.** The owner or operator shall provide, or cause to be provided, stack sampling and performance testing facilities as follows:

- (1) Sampling ports adequate for test methods applicable to such facilities.
- (2) Safe sampling platform(s).
- (3) Safe access to sampling platform(s).
- (4) Utilities for sampling and testing equipment.

[40 CFR 60.8(e)(1), (2), (3) & (4).]

**D.32. 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. and Permit No. 0730003-005-AC / PSD-FL-343]



**D.33. 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.]

**D.34. Combustion Turbine Testing Capacity.** Performance tests for compliance with standards specified in this permit shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. However, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for 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. Emissions performance tests shall meet all applicable requirements of Chapters 62-204 and 62-297, F.A.C.

[Rule 62-297.310(2), F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.35. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.36. 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. The minimum observation period for a visible emissions compliance test shall be sixty (60) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.

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

(c) **Calibration of Sampling Equipment.** Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (see attached Table

297.310-1 Calibration Schedule).  
[Rule 62-297.310(4), F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.37. 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. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.38. 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:
- Did not operate; or,
  - 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:
- Visible emissions, if there is an applicable standard;
  - 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,
  - 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) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe

that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

- (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.]

**D.39. Test Notification.** The permittee shall notify the Compliance Authority in writing at least 30 days prior to initial NSPS performance tests and at least 15 days prior to any other required tests.

[40 CFR 60.7, 40 CFR 60.8; Rule 62-297.310(7)(a)9., F.A.C.; and, 0730003-005-AC / PSD-FL-343]

### **Recordkeeping and Reporting Requirements**

**D.40. Records Retention.** All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request.

[Rules 62-4.160(14) & 62-213.440(1)(b)2., F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.41. Fuel Records.** The permittee shall demonstrate compliance with the fuel sulfur limits for natural gas and fuel oil specified in this permit by maintaining records required by 40 CFR 60.334 and 60.335.

[Rules 62-4.070(3) & 62-4.160(15), F.A.C.; and, Permit No. 0730003-005-AC / PSD-FL-343]

**D.42. Monthly Operations Summary.** By the fifth calendar day of each month, the permittee shall record the hours of operation and amount of each fuel fired for the combustion turbine. The information shall be recorded in a written or electronic log and shall summarize the previous month of operation and the previous 12 months of operation. All hours of operation shall be included in the demonstration of compliance with the 12-month fuel usage limitations. Information recorded and stored as an electronic file shall be available for inspection and/or printing within at least one day of a request from the Compliance Authority.

[Rule 62-4.160(15), F.A.C. and Permit No. 0730003-005-AC / PSD-FL-343]

**D.43. Excess Emissions Reporting and Semi-annual Reports.** If excess NO<sub>x</sub> or visible emissions occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Following the NSPS format in 40 CFR 60.7(c), Subpart A, periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. Within thirty (30) days following each calendar semi-annual period, the permittee shall submit a report on any

periods of excess emissions that occurred during the previous semi-annual to the Compliance Authority. [Rules 62-4.130, 62-204.800 & 62-210.700(6), F.A.C.; 40 CFR 60.7; and, Permit No. 0730003-005-AC / PSD-FL-343]

**D.44.** 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).]

**D.45.** 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).]

**D.46.** 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 30th 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).]

**D.47.** 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}*

**D.48. Notification.**

(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).

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

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

[40 CFR 60.7(e)(1).]

**D.49.** 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.

[40 CFR 60.7(f) and Rule 62-213.440(1)(b)2.b., F.A.C.]

**D.50.** 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.]

**D.51. 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.
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.]

**D.52.** In each compliance test report, submit the maximum input/production rate at which each emissions unit was operated since the most recent compliance test.

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

**Subsection E. This section addresses the following emissions unit:**

**E.U. ID No.    Brief Description**

-033        General Electric 7FA Combined Cycle Unit 2A

The unit consists of a General Electric 7FA combustion turbine, an automated combustion turbine control system, a heat recovery steam generator (HRSG), a gas-fired duct burner system, a HRSG stack, a bypass stack, and carbon monoxide (CO) and nitrogen oxides (NO<sub>x</sub>) continuous emissions monitoring systems (CEMS). The combustion turbine produces a nominal 188 megawatts (MW) and the HRSG is used to re-power the permanently retired Unit 2 steam turbine-electrical generator to produce a nominal 238 MW. In the combustion turbine, natural gas is fired as the primary fuel and distillate oil is fired as a restricted alternative fuel from on site storage tanks. Based on the higher heating value of each fuel and a compressor inlet temperature of 25° Fahrenheit (F), the design maximum heat input rates are 1,899 million British thermal unit (MMBtu) per hour for gas firing and 2,079 MMBtu per hour for oil firing. Natural gas is the sole fuel for the duct burner system rated at a maximum heat input rate of 765 MMBtu per hour.

Nitrogen oxide emissions are controlled by a selective catalytic reduction (SCR) system plus the dry low-NO<sub>x</sub> (DLN) combustion system when firing natural gas and water injection when firing distillate oil. Emissions of carbon monoxide and volatile organic compounds are minimized by the firing of clean fuels and the high combustion temperatures of the combustion turbine. Emissions of particulate matter are minimized by the large inlet air filtration system and the efficient combustion of the fuels. Emissions of sulfuric acid mist and sulfur dioxide are minimized by the firing of natural gas as the primary fuel and the restricted firing of distillate oil ( $\leq 0.05\%$  sulfur by weight) as a backup fuel.

When firing natural gas and duct firing, exhaust gas at 188° F leaves the HRSG and exits a stack that is 18 feet in diameter and 150 feet tall with a volumetric flow rate of approximately 1,016,100 actual cubic feet per minute (acfm). When firing distillate oil and duct firing, exhaust gas at 204° F leaves the HRSG and exits a stack that is 18 feet in diameter and 150 feet tall with a volumetric flow rate of approximately 1,090,210 acfm. When operating in simple cycle mode with the blanking plate installed, exhaust gas at 1114° F exits an emergency bypass stack that is also 18 feet in diameter and 150 feet tall with a volumetric flow rate of approximately 2,433,700 acfm. Temperatures and gas flows assume a compressor inlet temperature of 59° F. Initial startup of the unit occurred on May 2, 2008.

**Equipment**

**E.1. Combined Cycle Unit.**

- a. *Combustion Turbine:* The permittee is authorized to tune, operate, and maintain the following equipment: a General Electric 7FA combustion turbine-electrical generator set (Model 7241 or equivalent); an inlet air filtration system; an automated combustion turbine control system (Mark VI or equivalent), a heat recovery steam generator (HRSG); a gas-fired duct burner system; a HRSG stack; a bypass stack; and CO and NO<sub>x</sub> CEMS. The combustion turbine produces a nominal 188 MW when firing natural gas with a heat input rate of 1,899 MMBtu per hour.
- b. *HRSG:* The permittee is authorized to operate, and maintain a heat recovery steam generator (HRSG) designed to recover heat energy from the combustion turbine and deliver steam to the permanently retired Unit 2 steam turbine-electrical generator set. The HRSG is equipped with



a supplemental gas-fired duct burner system having a maximum heat input rate of 765 MMBtu per hour higher heating value (HHV).  
[0730003-009-AC, Specific Condition 2.]

- E.2. Fuel Tanks.** The existing plant includes two 10,000 barrel (bbl) diesel storage tanks, a 55,000 bbl No. 6 oil storage tank, and a 180,000 bbl No. 6 oil storage tank. As part of the project to construct this unit, the permittee was authorized to convert the 180,000 bbl No. 6 oil storage tank to store diesel fuel (distillate oil). The converted tank and the two existing diesel fuel tanks supply the combined cycle combustion turbine. [0730003-009-AC, Specific Condition 3.]

### **Air Pollution Control Systems**

- E.3. DLN Combustion.** The permittee shall operate and maintain the General Electric DLN 2.6 combustion system (or better) to control NO<sub>x</sub> emissions from the combustion turbine when firing natural gas. The system shall be maintained and tuned in accordance with the manufacturer's recommendations or industry standards. [0730003-009-AC, Specific Condition 4.]
- E.4. Water Injection Technology.** The permittee shall operate and maintain a water injection (WI) system to reduce NO<sub>x</sub> emissions when firing distillate oil. Initially, the water injection system was tuned without the SCR in operation to achieve a target NO<sub>x</sub> level of 42 parts per million by volume dry (ppmvd) @ 15% oxygen, which represents the vendor's specification for oil firing. Thereafter, the system shall be maintained and tuned in accordance with the manufacturer's recommendations or industry standards. [0730003-009-AC, Specific Condition 5.]
- E.5. SCR System.** The permittee shall operate and maintain a selective catalytic reduction (SCR) system to control NO<sub>x</sub> emissions from the combustion turbine when firing either natural gas or distillate oil during combined cycle operation (including periods when steam is dumped to a condenser). The SCR system consists of an ammonia injection grid, catalyst, ammonia storage, monitoring and control system, electrical, piping and other ancillary equipment. The SCR system shall be designed, constructed and operated to achieve the permitted levels for NO<sub>x</sub> emissions. The SCR system shall be designed to achieve an ammonia slip level of 5 ppmvd @ 15% oxygen. [0730003-009-AC, Specific Condition 6.]

*{Permitting Note: In accordance with 40 CFR 60.130, the storage of ammonia shall comply with all applicable requirements of the Chemical Accident Prevention Provisions in 40 CFR 68.}*

- E.6. Circumvention.** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. The SCR system is not required to be in operation when the unit is operating in simple cycle HRSG/SCR bypass mode. [Rule 62-210.650, F.A.C.; and 0730003-009-AC, Specific Condition 7.]

### **Performance Restrictions**

- E.7. Authorized Fuels.** The combustion turbine shall fire only natural gas and distillate oil. The maximum sulfur content of distillate oil shall not exceed 0.05% by weight. The duct burner system shall fire only natural gas. [0730003-009-AC, Specific Condition 8; Rule 62-210.200(PTE), F.A.C.]

**E.8. Permitted Capacities.**

- a. *Combustion Turbine:* The design maximum heat input rates are 1899 MMBtu per hour for gas firing and 2079 MMBtu per hour for oil firing based on the higher heating value of each fuel, a compressor inlet temperature of 25° F, and full load operation. Heat input rates will vary depending upon combustion turbine characteristics, ambient conditions, alternate methods of operation, and evaporative cooling. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department.
- b. *Duct Burner:* The design maximum heat input rate to the duct burner system is 765 MMBtu per hour.

[Rule 62-210.200(PTE), F.A.C.; and 0730003-009-AC, Specific Condition 9.]

**E.9. Restricted Operation.**

- a. The hours of operation of the combustion turbine are not limited (i.e., set to 8760 hours per year).
- b. Distillate oil firing in the combustion turbine shall not exceed 6,926,500 MMBtu during any consecutive 12 months (equivalent to 3500 hours of full load oil firing).
- c. The duct burner shall fire no more than 2,598,800 MMBtu of natural gas during any consecutive 12 months (equivalent to 3650 hours of full load duct firing).

[0730003-009-AC, Specific Condition 10; and Rule 62-210.200(PTE), F.A.C.]

**E.10. Authorized Methods of Operation.**

- a. *Combined Cycle Operation:* When operating as a combined cycle unit, the combustion turbine is authorized to fire natural gas or distillate oil and operate the gas-fired duct burners. For this permit, “combined cycle” shall mean operation of the combustion turbine during which heat is recovered from the combustion turbine exhaust in the HRSG to generate steam. This includes operation when the HRSG and SCR system are functioning, but the steam produced is dumped to a condenser.
- b. *Simple Cycle HRSG/SCR Bypass Operation:* The combustion turbine shall fire only natural gas with no duct firing when operating as a simple cycle unit with the exhaust bypassing the HRSG and SCR system. To operate in this manner, the unit must be cooled and a blanking plate installed to direct exhaust gases to the bypass stack. This method of operation will be an infrequent occurrence, most likely due to problems or maintenance of the HRSG, SCR system or steam turbine-electrical generator system.

[0730003-009-AC, Specific Condition 11.]

**Emissions Limitations and Standards**

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

Unless otherwise specified, the averaging times for Specific Conditions **E.11. - E.14.** are based on the specified averaging time of the applicable test method.

- E.11. Emissions Standards.** Emissions from the combined cycle unit shall not exceed the following standards:

Pollutant	Fuel	Operating Method <sup>a</sup>	Emission Standard ppmvd @ 15% O <sub>2</sub>	Equivalent lb/hour <sup>b</sup>	Averaging Period	Compliance Method
CO <sup>c</sup>	Gas	Combined Cycle	16.8	96.8	30-day rolling avg.	CO CEMS
		SC/Bypass	10.0	41.7	4-hour test avg.	EPA Method 10 <sup>e</sup>
	Oil	Combined Cycle	21.4	142.9	30-day rolling avg.	CO CEMS
	All Fuels	All methods	340.10 tons	---	12-month rolling total	CO CEMS
NO <sub>x</sub> <sup>d</sup>	Gas	Combined Cycle	5.0	47.8	30-day rolling avg. <sup>c</sup>	NO <sub>x</sub> CEMS
		SC/Bypass	9.0	61.8	4-hour test avg.	EPA Method 7E <sup>e</sup>
	Oil	Combined Cycle	10.0	108.4	30-day rolling avg. <sup>c</sup>	NO <sub>x</sub> CEMS
Opacity	All Fuels	All Methods	10 % Opacity		6-minute block avg.	EPA Method 9

- "SC/Bypass" means operation as a simple cycle unit with the blanking plate installed to bypass the HRSG and SCR system and exhaust directly to the bypass stack.
- Mass emissions rates represent the maximum equivalent "lb/hour" for the highest emitting method of operation, which includes duct firing for most cases. Mass emissions rates are based on a compressor inlet temperature of 25° F and the higher heating value of each fuel. Maximum mass emission rates will vary based on the actual test conditions in accordance with the performance curves and/or equations. For the combustion turbine, it is not necessary to continuously report hourly mass emissions rates with the CEMS data. See Appendix F of the attachments for a summary of equivalent mass emissions rates.
- To determine compliance with the emissions standards based on a 30-day rolling average, each fuel will have a separate 30-day rolling emissions standard based on CEMS data. To determine compliance with the CO emissions cap based on a 12-month rolling total, the mass emissions rate shall be determined from all valid hourly emissions data including periods such as startup, shutdown, malfunction, fuel switching, and tuning. Mass emissions may be determined from the CEMS data by using the appropriate F-Factor for each fuel.
- To determine compliance with the NO<sub>x</sub> emissions standards based on a 30-day rolling average, each fuel will have a separate 30-day rolling emissions standard based on NO<sub>x</sub> CEMS data.
- In addition to the methods specified above, data gathered by the CO CEMS and NO<sub>x</sub> CEMS may be used to demonstrate compliance in accordance with Specific Condition E.25.

*{Permitting Note: Potential annual emissions from the combustion turbine system are: 340 tons/year of CO, 332 tons/year of NO<sub>x</sub>, 112 tons/year of PM/PM<sub>10</sub>, 212 tons/year of SO<sub>2</sub>, 40 tons/year*

*of SAM, and 47 tons/year of VOC. Note that the project requires the shutdown of the existing Unit 2 boiler, which provided emissions decreases and allowed the project to avoid PSD preconstruction review. Potential annual emissions are based on: the permitted emissions standards; the operational restrictions in the permit; a maximum heat input rate from firing natural gas of 1,795 MMBtu per hour at compressor inlet temperature of 59° F; and a maximum heat input rate from firing distillate oil of 1979 MMBtu per hour at compressor inlet temperature of 59° F.}*

[0730003-009-AC, Specific Condition 12; Rule 62-4.070(3), F.A.C.; Rule 62-212.400(12)(Source Obligation), F.A.C., for the CO Emissions Cap]

**E.12. Ammonia Slip.** The SCR system shall be designed to achieve a maximum ammonia slip of 5 ppmvd @ 15% oxygen. Actual ammonia slip levels shall not exceed 10 ppmvd @ 15% oxygen as determined by EPA Method CTM-027 based on the average of three test runs. If tests indicate an ammonia slip level greater than 5 ppmvd @ 15% oxygen, the permittee shall:

- a. Begin testing and reporting the ammonia slip for each subsequent calendar quarter;
- b. Before the ammonia slip exceeds 10 ppmvd corrected to 15% oxygen, take corrective actions that result in lowering the ammonia slip to less than 5 ppmvd corrected to 15% oxygen; and
- c. Test and demonstrate that the ammonia slip is less than 5 ppmvd corrected to 15% oxygen within 45 days after completing the corrective actions.

Corrective actions may include, but are not limited to, adding catalyst, replacing catalyst, or other SCR system maintenance or repair. After demonstrating that the ammonia slip level is less than 5 ppmvd corrected to 15% oxygen, testing and reporting shall resume on an annual basis. [Rules 62-4.070(3) and 62-297.310(7)(b), F.A.C.; and 0730003-009-AC, Specific Condition 13.]

**E.13. Applicable NSPS Provisions.** In addition to the above standards, the combustion turbine system shall be designed, operated, and maintained to achieve the following federal New Source Performance Standards (NSPS) in 40 CFR 60: Subpart A (General Provisions) and Subpart KKKK (New Combustion Turbines and Duct Burners). In summary the emissions standards are:

- a. Pursuant to §60.4320 and Table 1, the NSPS Subpart KKKK NO<sub>x</sub> standard for gas firing is 15 ppmvd @ 15% oxygen based on a 30-day rolling average for combined cycle operation and 15 ppmvd @ 15% oxygen based on a 4-hour rolling average for simple cycle HRSG/SCR bypass operation.
- b. Pursuant to §60.4320 and Table 1, the NSPS Subpart KKKK NO<sub>x</sub> standard for oil firing is 42 ppmvd @ 15% oxygen based on a 30-day rolling average for combined cycle operation.
- c. Pursuant to §60.4330(a)(2), SO<sub>2</sub> emissions are limited in NSPS Subpart KKKK by a prohibition on the firing of any fuels that contain total potential sulfur emissions in excess of 0.060 lb SO<sub>2</sub>/MMBtu heat input.

See Appendix D of the attachments of this permit for the full NSPS requirements. [40 CFR 60, Subparts A and KKKK; and 0730003-009-AC, Specific Condition 14.]

**E.14. Applicable NESHAP Provisions.** In addition to the above standards, the combustion turbine system shall be designed, operated, and maintained to achieve the following federal National Emissions Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR 63: Subpart A (General Provisions) and Subpart YYYYY (Combustion Turbines). {Permitting Note: On August 18, 2004, EPA stayed the effectiveness of NESHAP Subpart YYYYY for lean premix and diffusion flame combustion turbines. When the stay is lifted, the regulation may be revised. It is uncertain at this time whether or not the combustion turbine will be subject to a formaldehyde limit with emissions

*testing or an oxidation catalyst will be required or some other set of requirements.* [40 CFR 63, Subparts A and YYYY; and 0730003-009-AC, Specific Condition 15.]

### **Excess Emissions**

*{Permitting Note: The following conditions apply only to the SIP-based emissions standards specified in Condition E.11 of this section. Rule 62-210.700, F.A.C. (Excess Emissions) cannot vary or supersede any federal NSPS, NESHAP, or Acid Rain provision.}*

**E.15. Excess Emissions Prohibited.** Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.; and 0730003-009-AC, Specific Condition 16.]

**E.16. Definitions.** Rule 62-210.200(Definitions), F.A.C., defines the following terms.

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

[0730003-009-AC, Specific Condition 17.]

**E.17. Excess Emissions Allowed.** As specified in this condition, excess emissions resulting from startup, shutdown, malfunction, fuel switches, and DLN/SCR/WI tuning are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such events. For excess emissions events that last less than the maximum duration allowed, only those minutes attributable to excess emissions from the event shall be excluded. When authorized, excess emissions data shall be excluded from a compliance determination as a continuous block attributed to the event.

a. *Startup:*

- 1) Steam Turbine Generator Cold Startup: No more than the first 600 minutes of CEMS data shall be excluded due to excess emissions from a steam turbine generator cold startup. A "steam turbine generator cold startup" is defined as startup after the steam turbine generator has been offline for 24 hours or more, or the first stage turbine metal temperature is 250°F or less.
- 2) Steam Turbine Generator Warm Startup: No more than the first 300 minutes of CEMS data shall be excluded due to excess emissions from a steam turbine generator warm startup. A "steam turbine generator warm startup" is defined as startup to combined cycle operation when the gas turbine has been shut down for a period of time and the first stage steam turbine metal temperature is greater than 250°F.
- 3) Steam Turbine Generator Hot Startup: No more than the first 240 minutes of CEMS data shall be excluded due to excess emissions from a steam turbine generator hot startup. A "steam turbine generator hot startup" is defined as startup of the steam turbine generator while the unit has been operating in the combined cycle mode with the steam being dumped to the condenser.

- 4) Simple Cycle HRSG/SCR Bypass Startup: No more than the first 30 minutes of CEMS data shall be excluded due to excess emissions from a simple cycle gas turbine startup in which exhaust is directed to the HRSG/SCR bypass stack.
- b. *Shutdown*: No more than the first 30 minutes of CEMS data shall be excluded due to excess emissions from a combustion turbine shutdown. For shutdowns of less than 30 minutes in duration, only those minutes attributable to excess emissions from shutdown shall be excluded.
- c. *Malfunction*: No more than 120 minutes of CEMS data shall be excluded in a 24-hour period due to excess emissions from malfunction. Within one (1) working day of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CEMS data.
- d. *Fuel Switch*: No more than the first 30 minutes of CEMS data shall be excluded due to excess emissions from a fuel switch. For fuel switches less than 30 minutes in duration, only those minutes attributable to excess emissions from fuel switching shall be excluded.
- e. *DLN/SCR/WI Tuning*: No more than 72 hours of CEMS data during any consecutive 12 months shall be excluded from the CEMS compliance demonstration due to excess emissions from the necessary tuning of the dry low-NO<sub>x</sub> (DLN) combustion system, the selective catalytic reduction (SCR) system, or the water injection (WI) system. Tuning sessions shall be performed in accordance with the manufacturer's recommendations or industry standards. Prior to performing any DLN, SCR, or WI tuning session, the permittee shall provide the Compliance Authority with an advance notice (telephone, facsimile transmittal, or electronic mail) that details the activity and proposed tuning schedule. *{Permitting Note: DLN tuning sessions are typically required after completion of initial construction, a combustor change-out, a major repair, a unit overhaul, maintenance to a combustor, or other similar circumstances. During DLN or water injection tuning, the SCR system is turned off and the combustion turbine is sequentially stepped through numerous loads (including low load levels) to gather actual emissions data and operational information for use in adjusting the combustion turbine and control system.}*

CEMS data shall only be excluded in accordance with the procedures described in Specific Condition E.20. (CEMS Data Requirements). As authorized by Rule 62-210.700(5), F.A.C., the above conditions allow excess emissions only for the specifically defined periods. Data exclusion does not apply to the CO emissions cap based on a 12-month rolling total. [0730003-009-AC, Specific Condition 18.; and Rule 62-210.700(5), F.A.C.]

- E.18. Alternate Visible Emissions Standard.** Visible emissions due to startup shall not exceed 10% opacity except for up to ten, 6-minute averaging periods during a calendar day, which shall not exceed 20% opacity. [Rule 62-210.700(5), F.A.C.; and 0730003-009-AC, Specific Condition 19.]

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

- E.19. CEMS:** The permittee shall calibrate, maintain, and operate continuous emission monitoring systems (CEMS) to measure and record the emissions of CO and NO<sub>x</sub> from the combustion turbine HRSG exhaust stack in a manner sufficient to demonstrate continuous compliance with the CEMS-based emission standards of this section.
- a. *CO Monitor*: The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The annual and required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering

the allowable methods of operation and corresponding emission standards.

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

[Rules 62-4.070(3), 62-210.800, and 62-297.520, F.A.C.; and 0730003-009-AC, Specific Condition 20.]

**E.20. CEMS Data Requirements.** The CEMS shall be calibrated, maintained, and operated in the combustion turbine exhaust stacks to measure and record the emissions of CO, and NO<sub>x</sub> in a manner sufficient to demonstrate compliance with the CEMS-based emission limits standards of this section. The CEMS shall express the results in units of parts per million by volume dry (ppmvd) corrected to 15% oxygen.

- a. *Valid Hourly Averages for Compliance:* Each CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement per minute. Except for allowable emissions data exclusions, all valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour. Each 1-hour block average shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, a 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). If less than two such data points are available, there is insufficient data and the 1-hour block average is not valid. Also, if an allowable exclusion episode should occur over two separate hourly averages, only those minutes attributed to the specific episode shall be excluded from each hour.
- b. *30-day Rolling Averages:* A 30-day rolling average shall be calculated from all valid hourly averages collected during the given operating day and the previous 29 operating days. For purposes of determining compliance with the 30-day rolling NO<sub>x</sub> standard, the missing data substitution methodology of 40 CFR Part 75, Subpart D, shall not be utilized. Instead, the 30-day rolling average shall be determined using the remaining hourly data and periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance reports. *{Permitting Note: Specific Condition E.21. defines the use of "maximum permitted emission levels" for use when the combustion turbine operates in simple cycle mode.}*
- c. *12-Month Rolling Total:* By the end of each month, the CO CEMS shall also determine a 12-month rolling total of CO emissions from the combustion turbine. The 12-month rolling total shall be based on all valid CO CEMS data collected (including startups, shutdowns, and malfunctions) for the given month and the previous 11 months.
- d. *Data Exclusion:* Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, malfunctions, and DLN tuning. Limited amounts of CEMS emissions data recorded during some of these episodes may be excluded from the

corresponding compliance demonstration subject to the provisions of Specific Condition E.17. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.

- e. **Monitor Availability:** Monitor availability for each CEMS used to demonstrate compliance shall be 95% or greater in any calendar quarter. Monitor availability shall be calculated consistent with Subpart KKKK in 40 CFR 60 and reported in the SIP and NSPS excess emissions reports required in Specific Condition E.33. In the event that 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Compliance Authority.

[Rules 62-4.070(3) and 62-212.400(12), F.A.C.; 40 CFR 75; and 0730003-009-AC, Specific Condition 21.]

**E.21. Simple Cycle HRSG/SCR Bypass Operation.** Because the bypass stack will only be used in emergency situations where the HRSG, SCR and/or steam turbine-generator are unavailable, the permittee is not required to install CO/NO<sub>x</sub> CEMS or permanent test ports on the bypass stack. When an emergency situation occurs, the permittee shall ensure that the unit is firing only natural gas and is properly operating with lean premix combustion (Mode 6). The permittee shall monitor the hours of operation in simple cycle HRSG/SCR bypass mode and use the following methods to determine CO and NO<sub>x</sub> emissions.

- a. Compliance with the NO<sub>x</sub> and CO emission standards for the simple cycle HRSG/SCR bypass mode of operation shall be demonstrated by conducting annual tests as required by Specific Condition E.25.
- b. Compliance with the 12-month rolling CO emissions cap, the maximum CO mass emission rate of 41.7 lb/hour shall be used to represent each hour of operation in this mode.

If the unit operates in simple cycle mode for a substantial period of time, the Compliance Authority may request additional CO and NO<sub>x</sub> testing to demonstrate compliance with the standards. [Rules 62-4.070(3) and 62-297.310(7)(b), F.A.C. ; and 0730003-009-AC, Specific Condition 22.]

*{Permitting Note: The above sampling method is similar to the method allowed under the Acid Rain program for bypass stack situations as described in 40 CFR 75.17(d)(2).}*

**E.22. Ammonia Monitoring Requirements.** In accordance with the manufacturer's specifications, the permittee shall calibrate, operate and maintain an ammonia flow meter to measure and record the ammonia injection rate to the SCR system. The permittee shall document the general range of ammonia flow rates required to meet permitted emissions levels over the range of load conditions allowed by this permit by comparing NO<sub>x</sub> emissions recorded by the CEM system with ammonia flow rates recorded using the ammonia flow meter. During NO<sub>x</sub> monitor downtimes or malfunctions, the permittee shall operate at the ammonia flow rate that is consistent with the documented flow rate for the combustion turbine load condition. [Rules 62-4.070(3), F.A.C.; and 0730003-009-AC, Specific Condition 23.]



**Emissions Performance Testing**

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

- E.23. Continuous Compliance.** Continuous compliance with the CO and NO<sub>x</sub> emissions standards shall be demonstrated with data collected from the required continuous emissions monitoring systems (CEMS). [Rules 62-4.070(3) and 62-297.310(7)(a) and (b), F.A.C. ; and 0730003-009-AC, Specific Condition 24.]
- E.24. Operational Rate During Testing.** Performance tests shall be conducted between 90% and 100% of permitted capacity for the given compressor inlet conditions in accordance with the requirements of Rule 62-297.310(2), F.A.C. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8; and 0730003-009-AC, Specific Condition 25.]
- E.25. Annual Compliance Testing.** During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), annual compliance tests shall be conducted in accordance with the test method specified in this section.
- a. The HRSG stack shall be tested on natural gas in combined cycle mode to demonstrate compliance with the standards for ammonia slip and visible emissions. For each required test, emissions of CO and NO<sub>x</sub> recorded by the CEMS shall also be reported. If distillate oil is fired for more than 400 hours during the federal fiscal year, the HRSG stack shall also be tested on oil in combined cycle mode to demonstrate compliance with the standards for ammonia slip and visible emissions.
- b. The simple cycle HRSG/SCR bypass operation shall be tested when firing natural gas in simple cycle mode to demonstrate compliance with the permitted CO and NO<sub>x</sub> emissions standards. For this method of operation, tests may be conducted by taking the SCR system out of service and sampling at the HRSG stack. In addition, the installed and certified CO and NO<sub>x</sub> CEMS may be used to provide the compliance test data. These tests shall consist of at least four, 1-hour test runs to determine the 4-hour average.  
[Rules 62-4.070(3) and 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8; and 0730003-009-AC, Specific Condition 27.]
- E.26. Test Notification.** The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. [Rule 62-297.310(7)(a)9, F.A.C.; and 0730003-009-AC, Specific Condition 28.]
- E.27. Test Methods.** Any required stack tests shall be performed in accordance with the following methods.

Method	Description of Method and Comments
CTM-027	Procedure for Collection and Analysis of Ammonia in Stationary Source
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental)
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines

The methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing unless prior written approval is received from the Department. Tests shall be conducted in accordance with the appropriate test method and the applicable NSPS and NESHAP in 40 CFR Parts 60 and 63, respectively. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR Parts 60 and 63; and 0730003-009-AC, Specific Condition 29.]

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

- E.28. Monitoring of Capacity.** The permittee shall monitor and record the operating rate of the combustion turbine on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown, malfunction, and DLN tuning). This shall be achieved through monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75 Appendix D, and recording the data using a monitoring component of the CEMS system required above. [Rule 62-4.070(3), F.A.C.; 40 CFR 75; and 0730003-009-AC, Specific Condition 31.]
- E.29. Monthly Operations Summary.** By the fifth calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the previous month and the previous consecutive 12 months: total heat input rate to the combustion turbine from each fuel (MMBtu); the total heat input rate to the duct burner (MMBtu); and the 12-month rolling total of CO emissions (tons). Information recorded and stored as an electronic file shall be available for inspection and printing within at least three days of a request by the Department. Fuel consumption shall be monitored in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3), F.A.C. ; and 0730003-009-AC, Specific Condition 32.]
- E.30. Fuel Sulfur Records.** The sulfur content of the distillate oil shall be determined by ASTM Methods D-129, D-1552, D-2622, D-4294, or equivalent methods approved by the Department. For each fuel oil delivery, the permittee shall record and retain the following information: the date; gallons delivered; and a fuel oil analysis including the heat content in MMBtu/gallon, the density in pounds/gallon, the sulfur content in percent by weight, and the name of the test method used. A certified analysis supplied by the fuel oil vendor is acceptable. Alternatively, the monitoring methods specified in § 60.4370 are sufficient to demonstrate compliance with the maximum fuel sulfur levels for distillate oil established in this permit. [Rule 62-4.070(3), F.A.C.; 40 CFR 60.4370 and 0730003-009-AC, Specific Condition 33.]
- E.31. Stack Test Reports.** The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report shall provide the applicable information specified in Rule 62-297.310(8), F.A.C. and summarized in Appendix C of the attachments. [Rule 62-297.310(8), F.A.C.; and 0730003-009-AC, Specific Condition 34.]
- E.32. CEMS RATA Reports.** At least 15 days prior to conducting any Relative Accuracy Test Assessments (RATA) on a CEMS, the permittee shall notify the Compliance Authority of the schedule (letter, email, fax, or phone call). In addition to filing reports with the Department's Bureau

of Air Monitoring and Mobile Sources, a summary of the RATA reports shall be submitted to the Compliance Authority within 45 days of completing the RATA. [Rules 62-4.070(3), F.A.C. ; and 0730003-009-AC, Specific Condition 35.]

**E.33. Excess Emissions Reporting.**

- a. *Malfunction Notification:* If NO<sub>x</sub> data will be excluded due to a malfunction, the permittee shall notify the Compliance Authority within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Compliance Authority may request a written summary report of the incident.
- b. *SIP Excess Emissions Report:* Within 30 days following the end of June and December of each year, the permittee shall submit a report to the Compliance Authority summarizing the following for the combustion turbine for the period: a summary of the CO and NO<sub>x</sub> compliance periods; a summary of CO and NO<sub>x</sub> data excluded due to malfunctions; a summary of the 12-month rolling CO emissions totals; a summary of any RATA tests performed; and a summary of the CEMS systems monitor availability for each quarter during the period.
- c. *NSPS Excess Emissions Reports:* Within thirty (30) days following the end of June and December of each year, the permittee shall submit a report including any applicable periods of excess emissions and monitoring systems performance as defined in 40 CFR 60 Subpart KKKK that occurred during the previous semi-annual period to the Compliance Authority. *{Permitting Note: If there are no periods of excess emissions as defined in Subpart KKKK, a statement to that effect may be submitted with the SIP Quarterly Report to suffice for the NSPS Semi-Annual Report.}*

[Rules 62-4.070(3), 62-4.130, 62-204.800, 62-210.700(6), F.A.C.; 40 CFR 60.7, 60.4375, 60.4395; and 0730003-009-AC, Specific Condition 36.]

## **Section IV. Acid Rain Part**

Operated by: City of Tallahassee  
ORIS Code: 0688

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

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

<u>E.U. ID No.</u>	<u>Description</u>
-001	Boiler Number 1: 903 MMBtu/hour
-004	Boiler Number 2: 2,325 - 2,500 MMBtu/hour (Permanently Retired)
-031	Combustion Turbine – Unit Number HC3 (Phase II Acid Rain Unit)
-032	Combustion Turbine – Unit Number HC4 (Phase II Acid Rain Unit)
-033	General Electric 7FA Combined Cycle Unit 2A

**A.1.** The Phase II Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

- a. DEP Form No. 62-210.900(1)(a), dated 03/31/06, received 02/13/09.  
[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

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

E.U. ID No.	EPA ID	Year	2008	2009	2010	2011	2012
-001	Boiler 1	SO <sub>2</sub> allowances, under Table 2 of 40 CFR 73	81*	81*	85*	85*	85*
-004	Boiler 2	SO <sub>2</sub> allowances, under Table 2 of 40 CFR 73	5522*	5522*	5532*	5532*	5532*
-031	Combustion Turbine HC3	SO <sub>2</sub> allowances to be determined by USEPA	0*	0*	0*	0*	0*
-032	Combustion Turbine HC4	SO <sub>2</sub> allowances to be determined by USEPA	0*	0*	0*	0*	0*
-033	Combined Cycle Turbine 2A	SO <sub>2</sub> allowances to be determined by USEPA	0*	0*	0*	0*	0*

\* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.

**A.3.** Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

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

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

[Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]

**A.4.** Comments, notes, and justifications: None.

Acid Rain Part- Page 1

## Acid Rain Part Application

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

This submission is: ☐ New ☒ Revised

**STEP 1**  
Identify the source by  
plant name, State, and  
ORIS code

Plant Name Arvah B. Hopkins Generating Station	State Florida	ORIS Code 688
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**STEP 2**

Enter the unit ID# for every  
Acid Rain unit at the Acid  
Rain source in column "a."  
For new units, enter the  
requested information in  
columns "c" and "d."

a Unit ID#	b Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	c New Units  Commence Operation Date	d New Units  Monitor Certification Deadline
1	Yes		
2	Yes		
HC3	Yes		
HC4	Yes		
2A	Yes	03/01/2008	06/01/2008
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

Acid Rain Part - Page 2

Arvah B. Hopkins Generating Station

Plant Name (from Step 1)

**STEP 3**  
Read the standard  
requirements

Acid Rain Part Requirements

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

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

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

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

Excess Emissions Requirements

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

Recordkeeping and Reporting Requirements

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

City of Tallahassee  
Arvah B. Hopkins Generating Station

Final Permit No. 0730003-013-AV  
Facility ID No. 0730003

Acid Rain Part - Page 3

Arvah B. Hopkins Generating Station  
Plant Name (from Step 1)

STEP 3,  
Cont'd.

Recordkeeping and Reporting Requirements (cont)

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

Liability

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

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

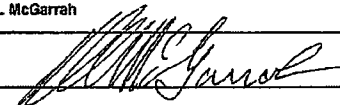
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudency review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impeding any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Certification

Read the  
certification  
statement, sign,  
and date

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

Name Robert E. McGarrath	
Signature 	Date 3/3/06



**Subsection B. This subsection addresses the Retired Unit Exemptions under Acid Rain, Phase II.**

The emissions unit listed below is regulated as a *permanently retired unit* under Phase II of the Federal Acid Rain Program.

E.U. ID No.	Description
-004	Boiler Number 2: 2,325 - 2,500 MMBtu/hour (Permanently Retired)

- The "Retired Unit Exemption" form submitted for this facility constitutes a supplement to the Acid Rain Part application pursuant to 40 CFR 72.8 and is a part of this permit. The owners and operators of these acid rain units shall comply with the standard requirements and special provisions set forth in DEP Form No. 62-210.900(1)(d), dated March, 16, 2008, and signed by the designated representative on March 3, 2009. This units are subject to the following: 40 CFR 72.1, which requires the unit to have an Acid Rain Part as part of its Title V permit; 40 CFR 72.2, which provides associated definitions; 40 CFR 72.3, which provides measurements, abbreviations, and acronyms; 40 CFR 72.4, which provides the federal authority of the Administrator; 40 CFR 72.5, which provides the authority of the states; 40 CFR 72.6, which makes the boiler a Phase II unit; 40 CFR 72.10, which gives the public access to information about this unit; and 40 CFR 72.13, which incorporates certain ASTM methods into 40 CFR Part 72.  
[Chapter 62-213, F.A.C. and Rule 62-214.340, F.A.C.]

- Sulfur dioxide (SO<sub>2</sub>) allowance allocations for the permanently retired Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2008	2009	2010	2011	2012
-004	Boiler 2	SO <sub>2</sub> allowances, under Table 2 of 40 CFR 73	5522*	5522*	5532*	5532*	5532*

\*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the U.S. EPA under Table 2 of 40 CFR 73.

- 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.
  - 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 62-213.440(3), F.A.C.
  - No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain program.
  - Allowances shall be accounted for under the Federal Acid Rain Program.  
[Rule 62-213.440(1)(c), F.A.C.]
- The designated representative of this acid rain unit applied for an exemption from the requirements of the Federal Acid Rain Program by submitting a completed and signed "Retired

Unit Exemption” form (DEP Form No. 62-210.900(1)(a)3., F.A.C., attached) to the Department.  
The date of permanent retirement was February 9, 2008.  
[Rule 62-214.340(2), F.A.C.; and, 40 CFR 72.8.]

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.]

## Acid Rain, CAIR, and Hg Budget Retired Unit Exemption

For more information, see Instructions and refer to 40 CFR 72.8, 96.105, 96.205, 96.305, and 60.4105; and Rules 62-214.340(2), 62-296.470, and 62-296.480, F.A.C.

This submission is: ☒ New ☐ Revised

### STEP 1

Identify the unit by plant name, State, ORIS code and unit ID#.

Arvah B. Hopkins Generating Station	FL	0688	2
Plant Name	State	ORIS/Plant Code	Unit ID#
Acid Rain	CAIR NO <sub>x</sub> Annual	CAIR SO <sub>2</sub>	CAIR NO <sub>x</sub> Ozone Season

Applicable Program(s):

### STEP 2

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

February 9, 2008

### STEP 3

If an acid rain affected unit, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2009

### STEP 4

Read the special provisions.

#### Acid Rain Special Provisions

- (1) A unit exempt under Rule 62-214.340(2), F.A.C., shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR Part 73, Subpart B. If the unit is a Phase I unit, for each calendar year in Phase I, the designated representative of the unit shall submit a Phase I permit application in accordance with 40 CFR Part 72, Subparts C and D, and an annual certification report in accordance with 40 CFR 72.90 through 72.92 and is subject to 40 CFR 72.95 and 72.96.
- (2) A unit exempt under Rule 62-214.340(2), F.A.C., shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain Part application under Rule 62-214.320, F.A.C., for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under Rule 62-214.340(2), F.A.C., shall comply with the requirements of Chapter 62-214, F.A.C., and the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) For any period for which a unit is exempt under Rule 62-214.340(2), F.A.C., the unit is not an Acid Rain unit and is not eligible to be an opt-in source under 40 CFR Part 74. As a non-Acid Rain Unit, the unit shall continue to be subject to any other applicable requirements under Chapter 62-213, F.A.C.
- (5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under Rule 62-214.340(2), F.A.C., shall retain at the source that includes the unit records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the EPA or the DEP. The owners and operators bear the burden of proof that the unit is permanently retired.
- (6) On the earlier of the following dates, a unit exempt under Rule 62-214.340(2), F.A.C., shall lose its exemption and become an Acid Rain Unit: (i) the date on which the designated representative submits an Acid Rain Part application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain Part application. For the purpose of applying monitoring requirements under 40 CFR Part 75, a unit that loses its exemption under Rule 62-214.340(2), F.A.C., shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

**Arvah B. Hopkins Generating Station**  
Plant Name (from STEP 1)

**STEP 4**  
(continued)

**CAIR Special Provisions**

- (1) A unit exempt under 40 CFR 96.105(a), 96.205(a), or 96.305(a), shall not emit any sulfur dioxide or nitrogen oxides starting on the date that the exemption takes effect. The DEP will allocate CAIR NO<sub>x</sub> allowances in accordance with Rule 62-296.470, F.A.C.
- (2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under Rule 62-296.470, F.A.C., shall retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the EPA or the DEP. The owners and operators bear the burden of proof that the unit is permanently retired.
- (3) The owners and operators and, to the extent applicable, the CAIR designated representative of a unit exempt under 40 CFR 96.105(a), 96.205(a), or 96.305(a), shall comply with the applicable requirements of the CAIR NO<sub>x</sub> Annual Trading Program, the CAIR SO<sub>2</sub> Trading Program, and the CAIR NO<sub>x</sub> Ozone Season Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) A unit exempt under 40 CFR 96.105(a), 96.205(a), or 96.305(a), and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the CAIR designated representative of the source submits a complete CAIR Part application under Rule 62-213.420, F.A.C., for the unit before the date on which the unit resumes operation.
- (5) On the earlier of the following dates, a unit exempt under 40 CFR 96.105(a), 96.205(a), or 96.305(a) shall lose its exemption:
  - (i) the date on which the CAIR designated representative submits a CAIR Part application under Special Provision (4) above;
  - (ii) the date on which the CAIR designated representative is required under Special Provision (4) above to submit an CAIR Part application for the unit; or
  - (iii) the date on which the unit resumes operation, if the CAIR designated representative is not required to submit a CAIR Part application for the unit.
- (6) For the purpose of applying monitoring, reporting and recordkeeping requirements under 40 CFR Part 96, Subparts HH, HHH, and/or HHHH, a unit that loses its exemption under 40 CFR 96.105(a), 96.205(a), or 96.305(a), shall be treated as a unit that commences commercial operation on the first date on which the unit resumes operation.

**Mercury (Hg) Budget Trading Special Provisions**

- (1) A unit exempt under 40 CFR 60.4105(a) shall not emit any mercury starting on the date that the exemption takes effect.
- (2) The DEP will allocate Hg allowances under Rule 62-296.480, F.A.C.
- (3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 60.4105(a) shall retain at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any before the end of the period, in writing by the EPA or the DEP. The owners and operators bear the burden of proof that the unit is permanently retired.
- (4) The owners and operators and, to the extent applicable, the Hg designated representative of a unit exempt under 40 CFR 60.4105(a) shall comply with the requirements of the Hg Budget Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (5) A unit exempt under 40 CFR 60.4105(a) and located at a source that is required, or but for this exemption would be required, to have a title V operating permit shall not resume operation unless the Hg designated representative of the source submits a complete Hg Budget Part application under 40 CFR 60.4122 and Rule 62-213.420, F.A.C., for the unit before the date on which the unit resumes operation.
- (6) On the earlier of the following dates, a unit exempt under 40 CFR 60.4105(a) shall lose its exemption:
  - (i) the date on which the Hg designated representative submits a Hg Budget Part application for the unit under Special Provision (5);
  - (ii) the date on which the Hg designated representative is required under Special Provision (5) to submit a Hg Budget Part application for the unit; or
  - (iii) the date on which the unit resumes operation, if the Hg designated representative is not required to submit a Hg Budget Part application for the unit.
- (7) For the purpose of applying monitoring, reporting and recordkeeping requirements under 40 CFR 60.4170 through 60.4176, a unit that loses its exemption under 40 CFR 60.4105(a) shall be treated as a unit that commences operation and commercial operation on the first date on which the unit resumes operation.

Arvah B. Hopkins Generating Station  
Plant Name (from STEP 1)

**STEP 5**  
**Make Statement of Compliance.**

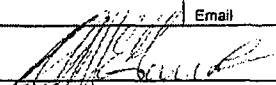
**Statement of Compliance**

I state that the unit identified above in STEP 1 was (or will be) permanently retired on the date identified in STEP 2 and will comply with the Special Provisions listed in STEP 4.

**STEP 6**  
**Read the certification and sign and date.**

**Certification (for designated representatives or alternate designated representatives only)**

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

Robert E. McGarrah		Manager - Electric Production	
Name		Title	
City of Tallahassee			
Owner Company Name			
(850) 891-5534		Rob.Mcgarrah@talgov.com	
Phone		Email	
Signature 		Date 2/3/09	

## **Section V. CAIR Part**

### **Clean Air Interstate Rule (CAIR).**

**Operated by:** City of Tallahassee

**Plant:** Arvah B. Hopkins Generating Station

**ORIS Code:** 0688

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

<b>EU No.</b>	<b>EPA Unit ID#</b>	<b>Brief Description</b>
001	1	Boiler Number 1: 903 million British thermal units per hour (MMBtu/hour) (Phase II Acid Rain Unit)
003	3	Combustion Turbine Number 2: 446 MMBtu/hour
004	2	Boiler Number 2: 2,325 - 2,500 MMBtu/hour (Phase II Acid Rain Unit)
031	HC3	Combustion Turbine HC3: 445 MMBtu/hour (Phase II Acid Rain Unit)
032	HC4	Combustion Turbine HC4: 445 MMBtu/hour (Phase II Acid Rain Unit)
033	2	General Electric 7FA Combined Cycle Combustion Turbine to repower Unit 2

1. Clean Air Interstate Rule Application. The Clean Air Interstate Rule Part Form submitted for this facility is a part of this permit. The owners and operators of these CAIR units as identified in this form must comply with the standard requirements and special provisions set forth in the CAIR Part Form (DEP Form No. 62-210.900(1)(b)) dated March 16, 2008, which is attached at the end of this section. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]

RECEIVED

and 96.322; and Rule 62-298479, F.A.C.

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296, F.A.C.

This submission is: ☒ New ☐ Revised ☐ Renewal

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

Plant Name:	State:	ORIS or EIA Plant Code:
Arvah B. Hopkins Electric Generating Station	Florida	688

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

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

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

[illegible]

### STEP 3

Read the  
standard  
requirements.

Arvah B. Hopkins Electric Generating Station

Plant Name (from STEP 1)

## CAIR NO<sub>x</sub> ANNUAL TRADING PROGRAM

### CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall:
  - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
  - (ii) [Reserved];
- (2) The owners and operators of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

### Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO<sub>x</sub> source with the following CAIR NO<sub>x</sub> Emissions Requirements.

### NO<sub>x</sub> Emission Requirements.

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

### Excess Emissions Requirements.

If a CAIR NO<sub>x</sub> source emits NO<sub>x</sub> during any control period in excess of the CAIR NO<sub>x</sub> emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NO<sub>x</sub> unit at the source shall surrender the CAIR NO<sub>x</sub> allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
  - (i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO<sub>x</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
  - (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>x</sub> Annual Trading Program.
  - (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO<sub>x</sub> Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> Annual Trading Program.
- (2) The CAIR designated representative of a CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.



**STEP 3,  
Continued**

Arvah B. Hopkins Electric Generating Station

Plant Name (from STEP 1)

Liability.

- (1) Each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit shall meet the requirements of the CAIR NO<sub>x</sub> Annual Trading Program.
- (2) Any provision of the CAIR NO<sub>x</sub> Annual Trading Program that applies to a CAIR NO<sub>x</sub> source or the CAIR designated representative of a CAIR NO<sub>x</sub> source shall also apply to the owners and operators of such source and of the CAIR NO<sub>x</sub> units at the source.
- (3) Any provision of the CAIR NO<sub>x</sub> Annual Trading Program that applies to a CAIR NO<sub>x</sub> unit or the CAIR designated representative of a CAIR NO<sub>x</sub> unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO<sub>x</sub> Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 98.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO<sub>x</sub> source or CAIR NO<sub>x</sub> unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

**CAIR SO<sub>2</sub> TRADING PROGRAM**

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall:
  - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 98.222 and Rule 62-286.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
  - (ii) [Reserved];
- (2) The owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

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

SO<sub>2</sub> Emission Requirements.

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

Excess Emissions Requirements.

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

Arvah B. Hopkins Electric Generating Station

Plant Name (from STEP 1)

**STEP 3,  
Continued**

**Recordkeeping and Reporting Requirements.**

(1) Unless otherwise provided, the owners and operators of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.

(i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO<sub>2</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.

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

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO<sub>2</sub> Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO<sub>2</sub> Trading Program or to demonstrate compliance with the requirements of the CAIR SO<sub>2</sub> Trading Program.

(2) The CAIR designated representative of a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall submit the reports required under the CAIR SO<sub>2</sub> Trading Program, including those under 40 CFR Part 96, Subpart HHH.

**Liability.**

(1) Each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit shall meet the requirements of the CAIR SO<sub>2</sub> Trading Program.

(2) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> source or the CAIR designated representative of a CAIR SO<sub>2</sub> source shall also apply to the owners and operators of such source and of the CAIR SO<sub>2</sub> units at the source.

(3) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> unit or the CAIR designated representative of a CAIR SO<sub>2</sub> unit shall also apply to the owners and operators of such unit.

**Effect on Other Authorities.**

No provision of the CAIR SO<sub>2</sub> Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO<sub>2</sub> source or CAIR SO<sub>2</sub> unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

**CAIR NO<sub>x</sub> OZONE SEASON TRADING PROGRAM**

**CAIR Part Requirements.**

(1) The CAIR designated representative of each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall:

(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and

(ii) [Reserved];

(2) The owners and operators of each CAIR NO<sub>x</sub> Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO<sub>x</sub> Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

**Monitoring, Reporting, and Recordkeeping Requirements.**

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO<sub>x</sub> Ozone Season source with the following CAIR NO<sub>x</sub> Ozone Season Emissions Requirements.

**NO<sub>x</sub> Ozone Season Emission Requirements.**

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for the control period from all CAIR NO<sub>x</sub> Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.

(2) A CAIR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO<sub>x</sub> Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1), (2), or (3) and for each control period thereafter.

(3) A CAIR NO<sub>x</sub> Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO<sub>x</sub> Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO<sub>x</sub> Ozone Season allowance was allocated.

(4) CAIR NO<sub>x</sub> Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>x</sub> Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.

(5) A CAIR NO<sub>x</sub> Ozone Season allowance is a limited authorization to emit one ton of NO<sub>x</sub> in accordance with the CAIR NO<sub>x</sub> Ozone Season Trading Program. No provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

- (6) A CAIR NO<sub>x</sub> Ozone Season allowance does not constitute a property right.  
 (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> Ozone Season allowance to or from a CAIR NO<sub>x</sub> Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO<sub>x</sub> Ozone Season unit.

Arvah B. Hopkins Electric Generating Station

Plant Name (from STEP 1)

**STEP 3,  
Continued**

**Excess Emissions Requirements.**

If a CAIR NO<sub>x</sub> Ozone Season source emits NO<sub>x</sub> during any control period in excess of the CAIR NO<sub>x</sub> Ozone Season emissions limitation, then:  
 (1) The owners and operators of the source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall surrender the CAIR NO<sub>x</sub> Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and  
 (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

**Recordkeeping and Reporting Requirements.**

- (1) Unless otherwise provided, the owners and operators of the CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.  
 (i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO<sub>x</sub> Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.  
 (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.  
 (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>x</sub> Ozone Season Trading Program.  
 (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO<sub>x</sub> Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> Ozone Season Trading Program.  
 (2) The CAIR designated representative of a CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

**Liability.**

- (1) Each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit shall meet the requirements of the CAIR NO<sub>x</sub> Ozone Season Trading Program.  
 (2) Any provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program that applies to a CAIR NO<sub>x</sub> Ozone Season source or the CAIR designated representative of a CAIR NO<sub>x</sub> Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO<sub>x</sub> Ozone Season units at the source.  
 (3) Any provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program that applies to a CAIR NO<sub>x</sub> Ozone Season unit or the CAIR designated representative of a CAIR NO<sub>x</sub> Ozone Season unit shall also apply to the owners and operators of such unit.

**Effect on Other Authorities.**


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

**STEP 4**

**Certification (for designated representative or alternate designated representative only)**

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

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

Rob McGarrath		Manager of Power Production	
Name		Title	
City of Tallahassee			
Company Owner Name			
(850) 891-5534		Robert.McGarrah@talgov.com	
Phone		E-mail Address	
Signature 		Date 4/28/08	

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

City of Tallahassee  
Arvah B. Hopkins Generating Station

Final Permit No. 0730003-013-AV  
Facility ID No. 0730003

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.

### **Emissions Related to Steam Generator No. 1**

1. Deareator Vents
2. Air Ejectors
3. Oil Vapor Extractors
4. Noncondensable Gas Extractors
5. Seal Oil Vacuum Pumps
6. Lube Oil Tanks (storage)
7. Lube/Fuel Oil Drip Pans
8. Hydrogen Gas Vents
9. Fuel Oil Piping
10. Natural Gas Blowdown/Vent
11. CO<sub>2</sub> Vent Purge
12. City of Tallahassee Electric Utility Generated Non-hazardous Boiler Chemical Cleaning Wastes

### **Emissions Related to Steam Generator No. 2**

13. Deareator Vents
14. Air Ejectors
15. Oil Vapor Extractors
16. Noncondensable Gas Extractors
17. Seal Oil Vacuum Pumps
18. Lube Oil Tanks (storage)
19. Lube/Fuel Oil Drip Pans
20. Hydrogen Gas Vents
21. Fuel Oil Piping
22. Natural Gas Blowdown Vent
23. CO<sub>2</sub> Purge Vent
24. City of Tallahassee Electric Utility Generated Non-hazardous Boiler Chemical Cleaning Wastes

## **Appendix I-1, Continued**

### Emissions Related to Combustion Turbine No. 1

- 25. Diesel Engine (Starter)<sup>1</sup>
- 26. Diesel Tank (#10)
- 27. Oil Vapor Extractor
- 28. Lube Oil Tank
- 29. Natural Gas Blowdown
- 30. Fuel Oil Piping

### Emissions Related to Combustion Turbine No. 2

- 31. Diesel Engine (Starter)<sup>1</sup>
- 32. Diesel Tank (#11)
- 33. Oil Vapor Extractor
- 34. Lube Oil Tank
- 35. Natural Gas Blowdown
- 36. Fuel Oil Piping

### Fuel Storage

- 37. Day Tank (Diesel Tank #12)
- 38. Diesel Fuel Dispensing Operation
- 39. Diesel Tank (#13)

### Fuel Farm

- 40. Diesel Tank #1
- 41. Diesel Tank #2
- 42. Fuel Oil Tank #3
- 43. Fuel Oil Tank #4
- 44. Fuel Oil Piping
- 45. Fuel Oil Transfer Station #1
- 46. Fuel Oil Transfer Station #2
- 47. Diesel Oil Transfer Station
- 48. Diesel Oil Tank Associated With the Hydrant Main

### Fuel Dispensing Operations

- 49. Truck Loading/Unloading Station #1
- 50. Truck Loading/Unloading Station #2
- 51. Gasoline Tank
- 52. Gasoline Pump
- 53. Diesel Oil Tank
- 54. Diesel Pump

### Organic Liquid Storage

- 55. Kerosene Tank #7
- 56. Lube Oil Tank #8
- 57. Lube Oil Tank #9

<sup>1</sup> These two diesel engines were installed well before December 19, 2002 (February 1970 and September 1972, respectively), and have not been reconstructed or modified. These units operate under 100 hour per year. They do not trigger any NSPS or NESHAP regulations for internal combustion engines.

### **Appendix I-1, Continued**

#### Fugitive VOC Emissions

- 58. (1-15) Parts Washers - Non-halogenated Solvents

#### Space Heaters

- 59. (1-12) Space Heaters
- 60. (2) Fresh Water Cooling Towers
- 61. Central Vacuum System

#### Maintenance Activities

- 62. Welding Exempt per Rule 62-210.300(3)(a)16, F.A.C.
- 63. High Temperature Metal Cutting

#### Plant Operations

- 64. Lube Oil Storage Tanks
- 65. Propane Storage Tanks
- 66. Sulfuric Acid Tank Vent
- 67. Sodium Hydroxide Tank Vents
- 68. Demineralizer Degasifier
- 69. G/C Natural Gas Vent
- 70. Natural Gas Blowdown

#### Fugitive PM<sub>10</sub> Emissions

- 71. Paved Roads
- 72. Unpaved Roads
- 73. Heavy Construction Activities
- 74. Aggregate Handling & Storage

#### Laboratory

- 75. Laboratory Equipment
- 76. Chemical Usage
- 77. Vacuum Pumps
- 78. Laboratory Fume Hoods

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

City of Tallahassee  
Arvah B. Hopkins Generating Station

Final Permit No. 0730003-013-AV  
Facility ID No. 0730003

Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither “regulated emissions units” nor “exempt emissions units”.

E.U. ID

No. Brief Description of Emissions Units and/or Activity

- 005 Fugitive VOC Sources - Painting Operations
- 006 General Purpose Internal Combustion Engines
- 007 Emergency Generators
- 034 750KW Emergency Diesel Generator

-005 Fugitive VOC Emissions. Fugitive VOC emissions are generated from the painting operations associated with normal plant maintenance. SCC: 4-90-999-98, Miscellaneous Volatile Organic Compound Evaporation.

-006 General Purpose Internal Combustion Engines.  
Located for use at this source is (1) Welding Generator. SCC: 2-03-003-01.  
Diesel Driven Fire Pump (Associated With the Hydrant Main). SCC: 2-03-001-01.  
Portable Diesel Pump. SCC: 2-03-001-01.

NSPS Applicability Under 40 CFR 60, Subpart III, or Subpart JJJJ, or 40 CFR 60 Subpart ZZZZ:

This unit covers a welding generator and a diesel driven fire pump. These engines were installed prior to 2002 and operate less than 100 hours per year. These engines have not undergone reconstruction or modification. Therefore, they do not trigger any of the applicability requirements of the above regulations.

-007 Emergency Generators.  
Located for use at this source is (1) Stationary Emergency Generator. SCC: 2-03-001-01.  
(3) Portable Emergency Generators. SCC: 2-03-003-01.

NSPS Applicability Under 40 CFR 60, Subpart III, or Subpart JJJJ, or 40 CFR 60 Subpart ZZZZ:

This unit covers one stationary emergency generator and three portable emergency generators. All of these devices were installed well before December 19, 2002, and are used for emergency situations only as described in the above regulations. They do not operate over 100 hours per year and do not trigger any of the applicability requirements of the above regulations.

-034 750 KW Emergency Diesel Generator.

Located for use at this source in conjunction with units 031 and 32 is (1) 750 KW Stationary Emergency Diesel Generator. SCC: 2-01-001-02.

NSPS Applicability Under 40 CFR 60, Subpart III, or Subpart JJJJ, or 40 CFR 60 Subpart ZZZZ:

This engine was installed prior to June 2005 and after December 19, 2002, however the unit operates less than 100 hours per year. Therefore, it does not trigger any of the applicability requirements of the above regulations.



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

City of Tallahassee  
Arvah B. Hopkins Generating Station

Final Permit No. 0730003-013-AV  
Facility ID No. 0730003

### Permit History (for tracking purposes):

E.U.

<u>ID No</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue / Effective Date</u>	<u>Expiration Date</u>	<u>Revised Date(s)</u>
-001	Boiler Hopkins #1	AO37-242825	03/08/94	03/01/99	
-002	Combustion Turbine Hopkins #1	AO37-242824	03/08/94	12/31/98	06/10/94, 06/24/94
-003	Combustion Turbine Hopkins #2	AO37-242824	03/08/94	12/31/98	06/10/94, 06/24/94
-004	Unit #2 Boiler	PA74-03D	05/20/75		05/18/94, 10/27/86
All	Initial Title V Permit	0730003-001-AV	01/01/98	12/31/02	
All	Admin Correction To Update Appendix TV-1 to TV-2	0730003-002-AV	01/02/98	12/31/02	
All	Title V Permit Renewal	0730003-003-AV	01/01/03	12/31/07	
-002	Establish excess VE for minor load change	0730003-006-AC	12/7/04	5/31/05	
-002	Title V revision to incorporate 0730003-006-AC	0730003-007-AV	3/15/05	12/31/07	
-031 & - 032	Title V revision to incorporate 0730003-005-AC	0730003-008-AV	4/17/07	12/31/07	
All	Title V Permit Renewal	0730003-011-AV	01/01/08	12/31/12	
-033	Unit 2A Construction	0730003-009-AC	9/19/06	7/1/09	
-031 & - 032	HC3 and HC4 modification	0730003-010-AC	1/24/07	7/31/07	
All	CAIR Part Revision	0730003-012-AC	2/3/09	12/31/12	

## **Referenced Attachments**

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

**Appendix GG, Standards of Performance for Stationary Gas Turbines**

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

**Appendix TV-6, Title V Conditions (version dated 6/23/06)**

**ASP Number 97-B-01**  
**(With Scrivener's Order Dated July 9, 1997)**

**Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring  
System Performance (40 CFR 60, July, 1996)**

**Table 297.310-1 Calibration Schedule**

**NSPS Subpart A**

**NESHAP Subpart A**

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

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

**Appendices A through F from 0730003-009-AC**

**Friday, Barbara**

---

**To:** Rob.McGarrah@talgov.com  
**Cc:** Bradburn, Rick; 'Forney.Kathleen@epamail.epa.gov'; Oquendo.Ana@epamail.epa.gov;  
Gibson, Victoria; Cascio, Tom; Holtom, Jonathan  
**Subject:** CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION; 0730003-013-AV  
**Attachments:** 0730003013SignedNoticeofFinalPermit.pdf

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

*Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).*

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0730003.013.AV.F\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0730003.013.AV.F_pdf.zip)

Attention: Tom Cascio

Owner/Company Name: CITY OF TALLAHASSEE  
Facility Name: ARVAH B. HOPKINS GENERATING STATION  
Project Number: 0730003-013-AV  
Permit Status: FINAL  
Permit Activity: PERMIT REVISION  
Facility County: LEON

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at <http://www.dep.state.fl.us/air/emission/apds/default.asp> . “

Permit project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation.

Barbara Friday  
Bureau of Air Regulation  
Division of Air Resource Management (DARM)  
(850)921-9524

**Friday, Barbara**

---

**From:** Microsoft Exchange  
**To:** Rob.McGarrah@talgov.com  
**Sent:** Wednesday, December 30, 2009 9:21 AM  
**Subject:** Relayed: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION;  
0730003-013-AV

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

[Rob.McGarrah@talgov.com](mailto:Rob.McGarrah@talgov.com)

Subject: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION; 0730003-013-AV

---

Sent by Microsoft Exchange Server 2007

## Friday, Barbara

---

**From:** Mcgarrah, Rob [Rob.Mcgarrah@talgov.com]  
**To:** Friday, Barbara  
**Sent:** Wednesday, December 30, 2009 9:22 AM  
**Subject:** Read: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION;  
0730003-013-AV

Your message was read on Wednesday, December 30, 2009 9:22:23 AM (GMT-05:00) Eastern Time (US & Canada).

## Friday, Barbara

---

**From:** Mcgarrah, Rob [Rob.Mcgarrah@talgov.com]  
**Sent:** Wednesday, December 30, 2009 9:24 AM  
**To:** Friday, Barbara  
**Cc:** Singh, Triveni; Wider, Russell  
**Subject:** RE: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION; 0730003-013-AV

Tallahassee has received and can access the documents.

-----Original Message-----

**From:** Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]  
**Sent:** Wednesday, December 30, 2009 9:21 AM  
**To:** Mcgarrah, Rob  
**Cc:** Bradburn, Rick; Forney.Kathleen@epamail.epa.gov; Oquendo.Ana@epamail.epa.gov; Gibson, Victoria; Cascio, Tom; Holtom, Jonathan  
**Subject:** CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION; 0730003-013-AV

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

*Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).*

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0730003.013.AV.F\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0730003.013.AV.F_pdf.zip)

Attention: Tom Cascio

Owner/Company Name: CITY OF TALLAHASSEE  
Facility Name: ARVAH B. HOPKINS GENERATING STATION  
Project Number: 0730003-013-AV  
Permit Status: FINAL  
Permit Activity: PERMIT REVISION  
Facility County: LEON

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at <http://www.dep.state.fl.us/air/emission/apds/default.asp> . “

Permit project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation.

Barbara Friday  
Bureau of Air Regulation  
Division of Air Resource Management (DARM)  
(850)921-9524

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*

**Friday, Barbara**

---

**From:** Mail Delivery System [MAILER-DAEMON@mseive02.rtp.epa.gov]  
**To:** Forney.Kathleen@epamail.epa.gov; Oquendo.Ana@epamail.epa.gov  
**Sent:** Wednesday, December 30, 2009 9:21 AM  
**Subject:** Relayed: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION;  
0730003-013-AV

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

[Forney.Kathleen@epamail.epa.gov](mailto:Forney.Kathleen@epamail.epa.gov)

[Oquendo.Ana@epamail.epa.gov](mailto:Oquendo.Ana@epamail.epa.gov)

Subject: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION; 0730003-013-AV



**Friday, Barbara**

---

**From:** Microsoft Exchange  
**To:** Cascio, Tom; Holtom, Jonathan; Bradburn, Rick; Gibson, Victoria  
**Sent:** Wednesday, December 30, 2009 9:21 AM  
**Subject:** Delivered: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION;  
0730003-013-AV

**Your message has been delivered to the following recipients:**

Cascio, Tom

Holtom, Jonathan

Bradburn, Rick

Gibson, Victoria

Subject: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION; 0730003-013-AV

---

Sent by Microsoft Exchange Server 2007

## **Friday, Barbara**

---

**From:** Cascio, Tom  
**To:** Friday, Barbara  
**Sent:** Wednesday, December 30, 2009 12:48 PM  
**Subject:** Read: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION;  
0730003-013-AV

Your message was read on Wednesday, December 30, 2009 12:48:03 PM (GMT-05:00) Eastern Time (US & Canada).

**Friday, Barbara**

---

**From:** Holtom, Jonathan  
**To:** Friday, Barbara  
**Sent:** Thursday, January 07, 2010 2:27 PM  
**Subject:** Read: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION;  
0730003-013-AV

Your message was read on Thursday, January 07, 2010 2:27:11 PM (GMT-05:00) Eastern Time (US & Canada).

## **Friday, Barbara**

---

**From:** Bradburn, Rick  
**To:** Friday, Barbara  
**Sent:** Wednesday, December 30, 2009 10:03 AM  
**Subject:** Read: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION;  
0730003-013-AV

Your message was read on Wednesday, December 30, 2009 10:03:11 AM (GMT-05:00) Eastern Time (US & Canada).

## Friday, Barbara

---

**From:** Gibson, Victoria  
**To:** Friday, Barbara  
**Sent:** Thursday, December 31, 2009 11:29 AM  
**Subject:** Read: CITY OF TALLAHASSEE - ARVAH B. HOPKINS GENERATING STATION;  
0730003-013-AV

Your message was read on Thursday, December 31, 2009 11:29:22 AM (GMT-05:00) Eastern Time (US & Canada).