

MEMORANDUM

To: Trina Vielhauer  
Through: Al Linero *Al Linero*  
From: Tom Cascio *Tom*  
Date: November 8, 2007  
Re: PROPOSED Permit Renewal No. 1110003-008-AV  
Fort Pierce Utilities Authority  
**H.D. King Power Plant**

To date, no comments were received from the applicant, the public at large, or the Environmental Protection Agency Region 4 on the draft permit package. Day 30 is November 10<sup>th</sup> (Saturday). Monday is a holiday, so we dated the cover letter for Tuesday, November 13, 2007. If we post for EPA review on the 13<sup>th</sup>, day 45 becomes December 28, 2007. This is an acid rain facility, so we will need to issue the FINAL Title V permit by December 31, 2007.

No changes were made to the DRAFT Title V permit renewal. We recommend that this PROPOSED Title V permit renewal be forwarded to Patty for posting to the Internet for EPA review on next Tuesday.



# 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

November 13, 2007

*Electronically Sent – Received Receipt Requested.*

[trichards@fpua.com](mailto:trichards@fpua.com)

Mr. Thomas W. Richards, P.E.  
Director of Electric and Gas Systems  
Fort Pierce Utilities Authority  
Post Office Box 3191  
Fort Pierce, Florida 34948

Re: DEP File No. 1110003-008-AV  
H. D. King Power Plant

Dear Mr. Richards:

One copy of the "PROPOSED PERMIT DETERMINATION" for the H. D. King Power Plant, located at 311 North Indian River Drive, Fort Pierce, St. Lucie County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit has become a PROPOSED permit.

An electronic version of this determination has been posted on the Division of Air Resource Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is:

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

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit is made by the USEPA within 45 days, the PROPOSED permit will become a FINAL permit no later than 55 days after the date on which the PROPOSED permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit, the FINAL permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn. If you have any questions, please contact Tom Cascio at 850/921-9526.

Sincerely,

Trina L. Vielhauer, Chief  
Bureau of Air Regulation

Enclosures

Thomas W. Richards, Fort Pierce Utilities Authority: [trichards@fpua.com](mailto:trichards@fpua.com)  
Ken Kosky, P.E., Golder Associates Inc.: [kkosky@golder.com](mailto:kkosky@golder.com)  
Lee Hoefert, P.E., Southeast District Office: [lee.hoefert@dep.state.fl.us](mailto:lee.hoefert@dep.state.fl.us)  
Gracy Danois, USEPA Region 4: [danois.gracy@epa.gov](mailto:danois.gracy@epa.gov)

PROPOSED Permit Determination  
Fort Pierce Utilities Authority  
**H.D. King Power Plant**

Title V Permit Renewal No. 1110003-008-AV

**I. Public Notice.**

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" to the Fort Pierce Utilities Authority, for the H.D. King Power Plant, located at 311 North Indian River Drive, Fort Pierce, St. Lucie County, was clerked on October 5, 2007. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was published in the Fort Pierce Tribune on October 11, 2007.

The DRAFT Title V Air Operation Permit Renewal was available for public inspection at the Department of Environmental Protection's Southeast District Office in West Palm Beach and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was received on October 15, 2007.

**II. Public Comment(s).**

No comments were received from the applicant, the public at large, or the Environmental Protection Agency Region 4 on the draft permit package.

**III. Conclusion.**

The permitting authority hereby issues the PROPOSED Title V Permit Renewal No. 1110003-008-AV, with no changes.

## STATEMENT OF BASIS

Fort Pierce Utilities Authority  
H. D. King Power Plant  
Facility ID No. 1110003  
St. Lucie County

Title V Air Operation Permit Renewal  
Permit Project No. 1110003-008-AV

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

This facility consists of: One 16.5 megawatt (MW), 219 million British thermal unit (MMBtu) per hour heat input, fossil fuel fired steam generator; one 37.5 MW, 470 MMBtu per hour, fossil fuel fired steam generator; one 56.1 MW 611 MMBtu per hour fossil fuel fired steam generator; and one 23.4 MW combined cycle gas turbine, with an 8.2 MW heat recovery steam generator (HRSG).

The nominal 16.5 MW steam generator is designated as Unit # 6. The emission unit is fired on natural gas with a maximum heat input of 218.9 MMBtu per hour. No. 2 fuel oil is fired as a secondary/emergency fuel. The 37.5 MW fossil fuel fired steam generator is designated as Unit # 7. The emission unit is fired on natural gas with a maximum heat input of 470.0 MMBtu per hour. No. 2 fuel oil is fired as a secondary/emergency fuel. Emissions are discharged through a multicyclone collector. Unit #8 is the nominal 56.1 MW fossil fuel fired steam generator. The emission unit is fired on natural gas with a maximum heat input of 644.0 MMBtu per hour. No. 2 fuel oil is fired as a secondary/emergency fuel. Emissions are uncontrolled. Unit #9 is the combined cycle gas turbine with HRSG with a maximum heat input of 415 MMBtu per hour. The HRSG is not supplementary-fired. The primary fuel is natural gas with No. 2 fuel oil used as a backup fuel. Compliance Assurance Monitoring (CAM) applies to Unit #9, and a CAM Plan is included in the Title V permit renewal.

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

Based on the Title V Air Operation Permit Renewal application received on June 25, 2007, this facility is not a major source of hazardous air pollutants (HAP).

Fort Pierce Utilities Authority  
H. D. King Power Plant  
Facility ID No. 1110003  
St. Lucie County

**Title V Air Operation Permit Renewal**

PROPOSED Permit Project No. **1110003-008-AV**

Permitting Authority:

State of Florida  
Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation  
Permitting South Section

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

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

Compliance Authority:

Florida Department of Environmental Protection  
Southeast District  
400 North Congress Avenue, Suite 200  
West Palm Beach, Florida 33401  
Telephone: 561/681-6600  
Fax: 561/681-6755

# Title V Air Operation Permit Renewal

PROPOSED Permit No. 1110003-008-AV

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**Permittee:**  
Fort Pierce Utilities Authority  
P. O. Box 3191  
Fort Pierce, Florida 34948

**PROPOSED Permit No.** 1110003-008-AV  
**Facility ID No.** 1110003  
**SIC Nos.:** 49, 4911  
**Project:** Title V Air Operation Permit Renewal

The purpose of this permitting action is to renew the facility's Title V Air Operation Permit. This facility is located at 311 North Indian River Drive, Fort Pierce, St. Lucie County; UTM Coordinates: Zone 17, 566.8 km East and 3036.3 km North; Latitude: 27° 27' 00" North and Longitude: 80° 19' 26" West.

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

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

Appendix U-1, List of Unregulated Emissions Units and/or Activities  
Appendix I-1, List of Insignificant Emissions Units and/or Activities  
APPENDIX TV-6, TITLE V CONDITIONS version dated 02/23/06  
APPENDIX SS-1, STACK SAMPLING FACILITIES version dated 10/07/96  
TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96  
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS  
EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT version dated 07/96  
Alternate Sampling Procedure: ASP Number 97-B-01  
OGC Case No. 91-1610: Final Order filed 7/21/92  
Appendix CAM

**Effective Date:** January 1, 2008  
**Renewal Application Due Date:** July 5, 2012  
**Expiration Date:** December 31, 2012

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Joseph Kahn, Director  
Division of Air Resource Management

JK/tlv/aal/tbc

**Section I. Facility Information.**

**Subsection A. Facility Description.**

This facility consists of: One 16.5 megawatt (MW) 219 million British thermal unit (MMBtu) per hour fossil fuel fired steam generator; one 37.5 MW 470 MMBtu per hour fossil fuel fired steam generator; one 56.1 MW 611 MMBtu per hour fossil fuel fired steam generator; and one 23.4 MW combined cycle gas turbine with a 8.2 MW heat recovery steam generator (HRSG).

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

Based on the Title V Air Operation Permit Renewal application received on June 25, 2007, this facility is not a major source of hazardous air pollutants (HAP).

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

<b>E.U. ID No.</b>	<b>Brief Description</b>
-003	23.4 MW Combined Cycle Gas Turbine with 8.2 MW HRSG - Unit #9
-004	16.5 MW Boiler - Unit #6
-007	37.5 MW Boiler - Unit #7
-008	56.1 MW Boiler - Unit #8

Unregulated Emissions Units and/or Activities

- 001 2.75 MW West Diesel #1
- 002 2.75 MW East Diesel #2
- 009 Cooling Tower
- 010 General Purpose Internal Combustion Engines

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

**Subsection C. Relevant Documents.**

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

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

- Table 1-1: Summary of Air Pollutant Standards and Terms
- Table 2-1: Summary of Compliance Requirements
- Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
- Appendix H-1, Permit History
- Statement of Basis

These documents are on file with the permitting authority:

Title V Air Operation Permit Renewal Application received on June 25, 2007.



DRAFT Title V Air Permit Renewal clerked on October 5, 2007.

## Section II. Facility-wide Conditions.

### The following conditions apply facility-wide:

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.

{Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard.

Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.

[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

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

a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center  
Post Office Box 1515  
Lanham-Seabrook, MD 20703-1515  
Telephone: 301/429-5018

and,

b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

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

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

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

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

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds 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. **Nothing was deemed necessary and ordered at this time.**

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

8. **Not federally enforceable.** Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: maintenance of paved roads and parking areas, regular mowing of grass and care of vegetation, and limiting access to plant property by unnecessary vehicles.

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

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. 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.)}

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

Florida Department of Environmental Protection  
Southeast District  
400 North Congress Avenue, Suite 200  
West Palm Beach, Florida 33401  
Telephone: 561/681-6600; Fax: 561/681-6755

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

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch  
Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303-8960  
Telephone: 404/562-9155; Fax: 404/562-9163

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

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

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

E.U. ID No.	Brief Description
-003	23.4 MW Combined Cycle Gas Turbine with 8.2 MW HRSG - Unit #9

Unit #9 is a combined cycle gas turbine and a HRSG with a maximum heat input of 415 MMBtu per hour. The HRSG is not supplementary-fired. The turbine is capable of producing 23.4 MW and the HRSG is capable of producing 8.2 MW of electric power. The primary fuel is natural gas with No. 2 fuel oil used as a backup fuel.

{Permitting notes: IMPORTANT REGULATORY CLASSIFICATIONS - The emissions unit is regulated under Standards of Performance for New Stationary Sources (NSPS) - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(8), F.A.C. Combined cycle gas turbine #9 began commercial operation in May, 1990; Compliance Assurance Monitoring (CAM), adopted and incorporated by reference in Rule 62-204.800, F.A.C.}

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

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

**A.1. Permitted Capacity.** The maximum process/operation rate is 415 MMBtu per hour (lower heating value) heat input.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

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

**A.2. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **A.25**.  
[Rule 62-297.310(2), F.A.C.]

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

- a. This emissions unit fires natural gas as the primary fuel.
  - b. This emissions unit fires No. 2 distillate oil as the emergency back-up fuel.
- [Rules 62-210.200(PTE), 62-212.400, and 62-212.410, F.A.C.; and, AC 56-141460]

{Permitting note: Emergency backup fuel use is authorized for maintenance, as per manufacturer's specifications, and during restricted availability of natural gas.}

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

### **Emission Limitations and Standards**

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

{Permitting note: Unless otherwise specified, the averaging time for conditions **A.5. - A.9.** are based on the specified averaging time of the applicable test method.}

**A.5. Nitrogen Oxides.** The NO<sub>x</sub> emissions shall not exceed:  $STD = 0.0075 (14.4)/Y + F$

where:

STD = allowable NO<sub>x</sub> emissions (percent by volume at 15 percent oxygen on a dry basis).  
Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO<sub>x</sub> emission allowance for fuel-bound nitrogen as defined in paragraph 40 CFR 60.332(a)(3).

or 84 ppmv at 15 percent oxygen on a dry basis.  
[40 CFR 60.332(a)(1); and, AC 56-141460]

**A.6. Sulfur Dioxide.** Sulfur dioxide gases discharged to the atmosphere shall not exceed 0.015 percent by volume at 15 percent oxygen on a dry basis.  
[40 CFR 60.333(a); and AC 56-141460]

**A.7. Sulfur Dioxide - Sulfur Content.** The maximum sulfur content of the No. 2 distillate oil shall not exceed 0.5 percent by weight.  
[AC 56-141460]

**A.8. Visible Emissions.** Visible emissions shall not exceed 15 percent opacity.  
[AC 56-141460]

**A.9. Carbon Monoxide.** Carbon Monoxide emissions shall not exceed 32.85 pounds per hour and 110.4 tons per year.  
[AC 56-141460]

### **Excess Emissions**

**A.10.** Excess emissions from this emissions unit resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the

duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

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

**A.11.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

**A.12.** At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS, National Emissions Standards for Hazardous Air Pollutants (NESHAP), or Acid Rain program provision.}

### **Monitoring of Operations**

**A.13.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG and using steam injection to control NO<sub>x</sub> emissions shall operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of steam to fuel being fired in the turbine. This system shall be accurate to within  $\pm 5.0$  percent and shall be approved by the Administrator. [40 CFR 60.334(a); and AC 56-141460]

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

- (1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.
- (2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).
- (3) The owner may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u). [40 CFR 60.334(h) and (i)]

### **A.15. Determination of Process Variables.**

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with

emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

### **Compliance Assurance Monitoring (CAM) Requirements**

**A.15.1.** This emissions unit is subject to the CAM requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; and Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

### **Test Methods and Procedures**

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

**A.16.** To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired. [40 CFR 60.335(b)(9)]

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

$$NO_x = [NO_x \text{ obs}] [(P_{\text{ref}}) / P_{\text{obs}}]^{0.5} e^{19(H_{\text{obs}} - 0.00633)} [288^{\circ} \text{K} / T_{\text{amb}}]^{1.53}$$

where:

NO<sub>x</sub> = Emissions of NO<sub>x</sub> at 15 percent oxygen and ISO standard ambient conditions.

NO<sub>x</sub> obs = Measured NO<sub>x</sub> emission at 15 percent oxygen, ppmv.

P<sub>ref</sub> = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure.

P<sub>obs</sub> = Measured combustor inlet absolute pressure at test ambient pressure.

e = Transcendental constant ( 2.718 )

H<sub>obs</sub> = Specific humidity of ambient air at test.

T<sub>amb</sub> = Temperature of ambient air at test. [40 CFR 60.335(b)(1); and AC 56-141460.]

**A.18.** When determining compliance with 40 CFR 60.332, Subpart GG - Standards of Performance for Stationary Gas Turbines, the monitoring device of 60.334(a) shall be used to determine the fuel consumption and the steam-to-fuel ratio necessary to comply with the permitted NO<sub>x</sub> standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

[40 CFR 60.335(b)]

**A.19.** The owner or operator shall determine compliance with the nitrogen oxides emission limitation in 40 CFR 60.332 by conducting performance tests using EPA Method 20, ASTM D6522-00 (incorporated by reference in 40 CFR 60.17), or EPA method 7E.

[40 CFR 60.335(b)(4)]

**A.20.** The owner or operator may determine compliance with the sulfur dioxide standard by calculations based on the fuel analysis for sulfur content. Certified analyses by the appropriate test method from the fuel supplier is acceptable. See specific condition **A.21**.

[AC 56-141460A]

**A.21.** The fuel sulfur content of 0.5 percent, by weight, shall be evaluated using ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00, or D1552-01 (incorporated by reference in 40 CFR 60.17). See specific condition **A.7**.

[40 CFR 60.335(b) and AC 56-141460A]

**A.22.** To meet the requirements of 40 CFR 60.334(h), the owner or operator shall use the methods specified in 40 CFR 60.335(b)(9) and 40 CFR 60.335(b)(10) to determine the nitrogen and sulfur content of the fuel being fired. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency. See specific condition **A.14**.

[40 CFR 60.335(b)]

**A.23. Visible Emissions.** The test method for visible emissions shall be EPA Method 9, incorporated by reference in Chapter 62-297, F.A.C.

[AC 56-141460]

**A.24. Carbon Monoxide.** The test method for carbon monoxide shall be EPA Method 10, incorporated by reference in Chapter 62-297, F.A.C.

[AC 56-141460]

**A.25. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited,



operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.  
[Rule 62-297.310(2), F.A.C. and 1110003-002-AO]

**A.26. 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.27. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

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

**A.28. 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, attached to this permit.

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

**A.29.** 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.30. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

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

(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]

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

**A.31.** For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:

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

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

**A.32.** The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 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), & (4)]

**A.33.** 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) & (2)]

**A.34. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

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

**A.35.** All recorded data shall be maintained on file by the Source for a period of five years.

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

**A.36. 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 Requirements.**

**A.37. Definitions.** For the purposes of Rule 62-204.800(8), 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(8)(a), F.A.C.]

**A.38. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

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

**Subsection B. This section addresses the following emissions unit.**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-004	16.5 MW Boiler - Unit #6

Fossil fuel fired steam generator #6 is a nominal 16.5 MW steam generator designated as H. D. King Unit #6. The emission unit is fired on natural gas with a maximum heat input of 218.9 MMBtu per hour. No. 2 fuel oil is fired as a secondary/emergency fuel.

{Permitting note(s): The emissions unit is regulated under Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less than 250 million Btu per Hour Heat Input. Fossil fuel fired steam generator #6 began commercial operation in 1958.}

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

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

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

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
6	218.9	Natural Gas
	218.9	No. 2 Fuel Oil

See specific condition **E.1.**

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.406, F.A.C.; and applicant request dated 11/30/99.]

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

**B.2. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **E.9.**

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

**B.3. Methods of Operation. Fuels.**

a. This emissions unit fires natural gas as the primary fuel.

b. This emissions unit fires No. 2 fuel oil as the emergency back-up fuel.

The use of No. 2 fuel oil is limited. See specific conditions **E.19.** and **E.2.**

[Rule 62-213.410, F.A.C.; OGC Case No. 91-1610: Final Order filed 7/21/92; and applicant request dated 11/30/99]

**Emission Limitations and Standards**

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

{Permitting note: Unless otherwise specified, the averaging time for conditions **B.5.** - **B.12.** are based on the specified averaging time of the applicable test method.}

**B.4. Hours of Operation.** This emissions unit may operate continuously, i.e., 8,760 hours/year. See specific condition **E.1.**

[Rule 62-210.200(PTE), F.A.C.; and, OGC Case No. 91-1610: Final Order filed 7/21/92]

**B.5. Visible Emissions.** Visible emissions shall not exceed 5 percent opacity when firing natural gas. Visible emissions shall not exceed 20 percent opacity when firing fuel oil, except for one two-minute period per hour during which opacity shall not exceed 40 percent.

[OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**B.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.]

**B.7. Particulate Matter.** Particulate Matter emissions shall not exceed 0.4 pound per hour when firing natural gas and 0.1 pound per million Btu when firing No. 2 fuel oil. See specific condition **E.3.**

[OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**B.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. See specific condition **E.3.**

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

**B.9. Sulfur Dioxide.** Sulfur Dioxide emissions shall not exceed 2.5 pounds per hour when firing natural gas and 0.80 pound per million Btu heat input when firing No. 2 fuel oil. See specific condition **E.3.**

[AC 56-141460A; OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**B.10. Nitrogen Oxides.** Nitrogen oxides emissions shall not exceed 1.31 pounds per hour when firing natural gas. See specific condition **E.3.**

[OGC Case No. 91-1610: Final Order filed 7/21/92]

**B.11. Volatile Organic Compounds.** Volatile organic compounds emissions shall not exceed 0.0236 pound per hour when firing natural gas. See specific condition **E.3**.

[OGC Case No. 91-1610: Final Order filed 7/21/92]

**B.12. Carbon Monoxide.** Carbon monoxide emissions shall not exceed 0.15 pound per hour when firing natural gas. See specific condition **E.3**.

[OGC Case No. 91-1610: Final Order filed 7/21/92]

**B.13. to B.16.** [Reserved.]

### **Test Methods and Procedures**

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

**B.17. Visible emissions.** The test method for visible emissions shall be EPA Method 9 when firing natural gas and DEP Method 9 when firing No. 2 fuel oil, incorporated in Chapter 62-297, F.A.C. See specific condition **B.18**.

[Rules 62-213.440 and 62-297.401, F.A.C.; OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**B.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, F.A.C.]

**B.19. Particulate Matter.** The test method for particulate matter shall be EPA Method 5, incorporated in Chapter 62-297, F.A.C.



[AC 56-141460A]

**B.20. Sulfur Dioxide.** The test method for sulfur dioxide shall be EPA Method 6 or 6C, incorporated in Chapter 62-297, F.A.C., or by calculation based on fuel analysis for sulfur content of the oil and natural gas. Certified analyses by the appropriate test method(s) from the fuel supplier is acceptable. See specific condition **B.21.**

[AC 56-141460A]

**B.21.** The fuel sulfur content of the oil or natural gas shall be evaluated using ASTM D1552, ASTM D1072, ASTM D3031, ASTM D4084, or ASTM D3246, or latest edition.

[AC 56-141460A]

**B.22.** The test method for nitrogen oxides shall be EPA Method 7 or 7E, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**B.23.** The test method for volatile organic compounds shall be EPA Method 25A, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**B.24.** The test method for carbon monoxide shall be EPA Method 10, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

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

**Subsection C. This section addresses the following emissions unit.**

E.U. ID No.	Brief Description
-007	37.5 MW Boiler - Unit #7

Fossil fuel fired steam generator #7 is a nominal 37.5 MW steam generator designated as H. D. King Unit #7. The emission unit is fired on natural gas with a maximum heat input of 470.0 MMBtu per hour. No. 2 fuel oil is fired as a secondary/emergency fuel. Emissions are discharged through a multicyclone collector.

{Permitting note(s): The emissions unit is regulated under Acid Rain, Phase II; and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input. Fossil fuel fired steam generator #7 began commercial operation in 1964.}

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

Essential Potential to Emit (PTE) Parameters

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

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
7	470.0	Natural Gas
	470.0	No. 2 Fuel Oil

See specific condition **E.1.**

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.406, F.A.C.; and applicant request dated 11/30/99.]

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

**C.2. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **E.9.**

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

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

- a. This emissions unit fires natural gas as the primary fuel.
  - b. This emissions unit fires No. 2 fuel oil as the emergency back-up fuel.
- The use of No. 2 fuel oil is limited. See specific conditions **E.19.** and **E.2.**

[Rule 62-213.410, F.A.C.; OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**C.4. Hours of Operation.** This emissions unit may operate continuously, i.e., 8,760 hours/year. See specific condition **E.1.**

[Rule 62-210.200(PTE), F.A.C.; and, OGC Case No. 91-1610: Final Order filed 7/21/92]

**Emission Limitations and Standards**

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

{Permitting note: Unless otherwise specified, the averaging time for conditions **C.5.** - **C.12.** are based on the specified averaging time of the applicable test method.}

**C.5. Visible Emissions.** Visible emissions shall not exceed 5 percent opacity when firing natural gas. Visible emissions shall not exceed 20 percent opacity when firing fuel oil, except for one two-minute period per hour during which opacity shall not exceed 40 percent.

[OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**C.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.]

**C.7. Particulate Matter.** Particulate Matter emissions shall not exceed 0.568 pound per hour when firing natural gas and 0.1 pound per million Btu when firing No. 2 fuel oil. See specific condition **E.3.**

[OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**C.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. See specific condition **E.3.**

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

**C.9. Sulfur Dioxide.** Sulfur Dioxide emissions shall not exceed 2.5 pounds per hour when firing natural gas and 0.80 pound per million Btu heat input when firing No. 2 fuel oil. See specific condition **E.3.**

[AC 56-141460A; OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**C.10. Nitrogen Oxides.** Nitrogen Oxides emissions shall not exceed 104.35 pounds per hour when firing natural gas. See specific condition **E.3.**

[OGC Case No. 91-1610: Final Order filed 7/21/92]

**C.11. Volatile Organic Compounds.** Volatile Organic Compounds emissions shall not exceed 0.266 pound per hour when firing natural gas. See specific condition **E.3.**

[OGC Case No. 91-1610: Final Order filed 7/21/92]

**C.12. Carbon Monoxide.** Carbon Monoxide emissions shall not exceed 7.589 pounds per hour when firing natural gas. See specific condition **E.3.**

[OGC Case No. 91-1610: Final Order filed 7/21/92]

**C.13. to C.16.** [Reserved.]

### **Test Methods and Procedures**

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

**C.17. Visible emissions.** The test method for visible emissions shall be EPA Method 9 when firing natural gas and DEP Method 9 when firing No. 2 fuel oil, incorporated in Chapter 62-297, F.A.C. See specific condition **C.18.**

[Rules 62-213.440 and 62-297.401, F.A.C.; and, OGC Case No. 91-1610: Final Order filed 7/21/92]

**C.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, F.A.C.]

**C.19. Particulate Matter.** The test method for particulate matter shall be EPA Method 5, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**C.20. Sulfur Dioxide.** The test method for sulfur dioxide shall be EPA Method 6 or 6C, incorporated in Chapter 62-297, F.A.C., or by calculation based on fuel analysis for sulfur content of the oil and natural gas. Certified analyses by the appropriate test method(s) from the fuel supplier is acceptable. See specific condition **C.21.**

[AC 56-141460A]

**C.21.** The fuel sulfur content of the oil or natural gas shall be evaluated using ASTM D1552, ASTM D1072, ASTM D3031, ASTM D4084, or ASTM D3246, or latest edition.

[AC 56-141460A]

**C.22.** The test method for nitrogen oxides shall be EPA Method 7 or 7E, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**C.23.** The test method for volatile organic compounds shall be EPA Method 25A, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**C.24.** The test method for carbon monoxide shall be EPA Method 10, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**C.25. to C.32.** [Reserved.]

**Record keeping and Reporting Requirements**

**C.33.** [Reserved.]

**C.34.** [Reserved.]

**C.35.** 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.]

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

**Subsection D. This section addresses the following emissions unit.**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-008	56.1 MW Boiler - Unit #8

H. D. King Unit #8 is a nominal 56.1 MW fossil fuel fired steam generator. The emission unit is fired on natural gas with a maximum heat input of 644.0 MMBtu per hour. No. 2 fuel oil is fired as a secondary/emergency fuel. Emissions are uncontrolled.

{Permitting note(s): The emissions unit is regulated under Acid Rain, Phase II; and NSPS - 40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971, adopted and incorporated by reference in Rule 62-204.800(8), F.A.C. Fossil fuel fired steam generator # 8 began commercial operation in May 1976.}

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

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

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

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
8	644.0	Natural Gas
	644.0	No. 2 Fuel Oil

See specific condition **E.1.**

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.406, F.A.C.; and applicant request dated 11/30/99.]

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

**D.2. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **E.9.**

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

**D.3. Methods of Operation. Fuels.**

- a. This emissions unit fires natural gas as the primary fuel.
  - b. This emissions unit fires No. 2 fuel oil as the emergency back-up fuel.
- The use of No. 2 fuel oil is limited. See specific conditions **E.19.** and **E.2.**

[Rule 62-213.410, F.A.C.; OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**D.4. Hours of Operation.** This emissions unit may operate continuously, i.e., 8,760 hours/year and shall meet the requirements of specific condition **E.1.** See specific condition **E.1.**

[Rule 62-210.200(PTE), F.A.C.; and, OGC Case No. 91-1610: Final Order filed 7/21/92]

**Emission Limitations and Standards**

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

{Permitting note: Unless otherwise specified, the averaging time for conditions **D.5.** - **D.12.** are based on the specified averaging time of the applicable test method.}

**D.5. Visible Emissions.** Visible emissions shall not exceed 5 percent opacity when firing natural gas.. Visible emissions shall not exceed 20 percent opacity when firing fuel oil, except for one six-minute period per hour during which opacity shall not exceed 27 percent.

[40 CFR 60.42(a)(2); OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**D.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.]

**D.7. Particulate Matter.** Particulate Matter emissions shall not exceed 0.945 pound per hour when firing natural gas and 0.1 pound per million Btu when firing No. 2 fuel oil. See specific condition **E.3.**

[OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**D.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. See specific condition **E.3.**

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

**D.9. Sulfur Dioxide.** Sulfur Dioxide emissions shall not exceed 2.5 pounds per hour when firing natural gas and 0.80 pound per million Btu heat input when firing No. 2 fuel oil. See specific condition **E.3.**

[AC 56-141460A; OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**D.10. Nitrogen Oxides.** On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, no owner or operator subject to the provisions of 40 CFR 60, Subpart D, shall

cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO<sub>2</sub> in excess of:

- (1) 86 nanograms per joule heat input (0.20 lb per million Btu) derived from gaseous fossil fuel.
- (2) 129 nanograms per joule heat input (0.30 lb per million Btu) derived from liquid fossil fuel.

See specific condition **E.3**.

[40 CFR 60.44(a)(1) & (2); and, OGC Case No. 91-1610: Final Order filed 7/21/92]

**D.11. Volatile Organic Compounds.** Volatile Organic Compounds emissions shall not exceed 0.441 pound per hour when firing natural gas. See specific condition **E.3**.

[OGC Case No. 91-1610: Final Order filed 7/21/92]

**D.12. Carbon Monoxide.** Carbon Monoxide emissions shall not exceed 12.59 pounds per hour when firing natural gas. See specific condition **E.3**.

[OGC Case No. 91-1610: Final Order filed 7/21/92]

### **Excess Emissions**

**D.13.** Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

(1) **Opacity.** Excess emissions are defined as any six-minute period during which the average opacity of emissions exceeds 20 percent opacity, except that one six-minute average per hour of up to 27 percent opacity need not be reported

(3) **Nitrogen oxides.** Excess emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under 40 CFR 60.44.

[40 CFR 60.45(g)(1) & (3)]

**D.14. to D.17.** [Reserved.]

### **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.18. Visible emissions.** The test method for visible emissions shall be EPA Method 9 when firing natural gas and DEP Method 9 when firing No. 2 fuel oil, incorporated in Chapter 62-297, F.A.C. See specific condition **D.19**.

[Rules 62-213.440 and 62-297.401, F.A.C.; OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**D.19. DEP Method 9.** The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording: Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20



percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

- a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
- b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

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

[Rule 62-297.401, F.A.C.]

**D.20. Particulate Matter.** The test method for particulate matter shall be EPA Method 5, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**D.21. Sulfur Dioxide.** The test method for sulfur dioxide shall be EPA Method 6 or 6C, incorporated in Chapter 62-297, F.A.C., or by calculation based on fuel analysis for sulfur content of the oil and natural gas. Certified analyses by the appropriate test method(s) from the fuel supplier is acceptable. See specific condition **D.22.**

[AC 56-141460A]

**D.22.** The fuel sulfur content of the oil or natural gas shall be evaluated using ASTM D1552, ASTM D1072, ASTM D3031, ASTM D4084, or ASTM D3246, or latest edition.

[AC 56-141460A]

**D.23.** The test method for nitrogen oxides shall be EPA Method 7 or 7E, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**D.24.** The test method for volatile organic compounds shall be EPA Method 25A, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**D.25.** The test method for carbon monoxide shall be EPA Method 10, incorporated in Chapter 62-297, F.A.C.

[AC 56-141460A]

**D.26.** The owner or operator shall determine compliance with the particulate matter, SO<sub>2</sub>, and NO<sub>x</sub> standards as follows:

(1) The emission rate (E) of particulate matter, SO<sub>2</sub>, or NO<sub>x</sub> shall be computed for each run using the following equation:

$$E = C F_d (20.9)/(20.9 - \% O_2)$$

E = emission rate of pollutant, ng/J (1b/million Btu).  
C = concentration of pollutant, ng/dscm (1b/dscf).  
% O<sub>2</sub> = oxygen concentration, percent dry basis.  
F<sub>d</sub> = factor as determined from Method 19.

(2) Method 5 shall be used to determine the particular matter concentration (C) at affected facilities without wet flue-gas-desulfurization (FGD) systems.

(i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). The probe and filter holder heating systems in the sampling train may be set to provide a gas temperature no greater than 160 ± 14 °C (320 ± 25 °F).

(ii) The emission rate correction factor, integrated or grab sampling and analysis procedure of Method 3B shall be used to determine the O<sub>2</sub> concentration (%O<sub>2</sub>). The O<sub>2</sub> sample shall be obtained simultaneously with, and at the same traverse points as, the particulate sample. If the grab sampling procedure is used, the O<sub>2</sub> concentration for the run shall be the arithmetic mean of all the individual O<sub>2</sub> sample concentrations at each traverse point.

(iii) If the particulate run has more than 12 traverse points, the O<sub>2</sub> traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O<sub>2</sub> traverse points.

(3) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

(4) Method 6 shall be used to determine the SO<sub>2</sub> concentration.

(i) The sampling site shall be the same as that selected for the particulate sample. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28 ft). The sampling time and sample volume for each sample run shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Two samples shall be taken during a 1-hour period, with each sample taken within a 30-minute interval.

(ii) The emission rate correction factor, integrated sampling and analysis procedure of Method 3B shall be used to determine the O<sub>2</sub> concentration (%O<sub>2</sub>). The O<sub>2</sub> sample shall be taken simultaneously with, and at the same point as, the SO<sub>2</sub> sample. The SO<sub>2</sub> emission rate shall be computed for each pair of SO<sub>2</sub> and O<sub>2</sub> samples. The SO<sub>2</sub> emission rate (E) for each run shall be the arithmetic mean of the results of the two pairs of samples.

(5) Method 7 shall be used to determine the NO<sub>x</sub> concentration.

(i) The sampling site and location shall be the same as for the SO<sub>2</sub> sample. Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals.

(ii) For each NO<sub>x</sub> sample, the emission rate correction factor, grab sampling and analysis procedure of Method 3B shall be used to determine the O<sub>2</sub> concentration (%O<sub>2</sub>). The sample shall be taken simultaneously with, and at the same point as, the NO<sub>x</sub> sample.

(iii) The NO<sub>x</sub> emission rate shall be computed for each pair of NO<sub>x</sub> and O<sub>2</sub> samples. The NO<sub>x</sub> emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples.

[40 CFR 60.46(b)(1), (2), (3), (4), & (5)]

**D.27.** The owner or operator may use the following as alternatives to the reference methods and procedures in 40 CFR 60.46 or in other sections as specified:

(1) The emission rate (E) of particulate matter, SO<sub>2</sub> and NO<sub>x</sub> may be determined by using the F<sub>c</sub> factor, provided that the following procedure is used:

(i) The emission rate (E) shall be computed using the following equation:

$$E = C F_c (100 / \% \text{CO}_2)$$

where:

E = emission rate of pollutant, ng/J (1b/million Btu).

C = concentration of pollutant, ng/dscm (lb/dscf).

% CO<sub>2</sub> = carbon dioxide concentration, percent dry basis.

F<sub>C</sub> = factor as determined in appropriate sections of Method 19.

(ii) If and only if the average F<sub>C</sub> factor in Method 19 is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from 17 to 20 percent, then three runs of Method 3B shall be used to determine the O<sub>2</sub> and CO<sub>2</sub> concentration according to the procedures in 40 CFR 60.46(b)(2)(ii), (4)(ii), or (5)(ii). Then if F<sub>O</sub> (average of three runs), as calculated from the equation in Method 3B, is more than ± 3 percent than the average F<sub>O</sub> value, as determined from the average values of F<sub>d</sub> and F<sub>C</sub> in Method 19, i.e., F<sub>Oa</sub> = 0.209 (F<sub>da</sub> / F<sub>ca</sub>), then the following procedure shall be followed:

(A) When F<sub>O</sub> is less than 0.97 F<sub>Oa</sub>, then E shall be increased by that proportion under 0.97 F<sub>Oa</sub>, e.g., if F<sub>O</sub> is 0.95 F<sub>Oa</sub>, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.

(B) When F<sub>O</sub> is less than 0.97 F<sub>Oa</sub> and when the average difference ( $\bar{d}$ ) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under 0.97 F<sub>Oa</sub>, e.g., if F<sub>O</sub> is 0.95 F<sub>Oa</sub>, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(C) When F<sub>O</sub> is greater than 1.03 F<sub>Oa</sub> and when  $\bar{d}$  is positive, then E shall be decreased by that proportion over 1.03 F<sub>Oa</sub>, e.g., if F<sub>O</sub> is 1.05 F<sub>Oa</sub>, E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(2) For Method 5 or 5B, Method 17 may be used at facilities with or without wet FGD systems if the stack gas temperature at the sampling location does not exceed an average temperature of 160 °C (320 °F). Method 17 shall not be used after wet FGD systems if the effluent gas is saturated or laden with water droplets.

(3) Particulate matter and SO<sub>2</sub> may be determined simultaneously with the Method 5 train provided that the following changes are made:

(i) The filter and impinger apparatus in sections 2.1.5 and 2.1.6 of Method 8 is used in place of the condenser (section 2.1.7) of Method 5.

(ii) All applicable procedures in Method 8 for the determination of SO<sub>2</sub> (including moisture) are used.

(4) For Method 6, Method 6C may be used. Method 6A may also be used whenever Methods 6 and 3B data are specified to determine the SO<sub>2</sub> emission rate, under the conditions in 40 CFR 60.46(d)(1).

(5) For Method 7, Method 7A, 7C, 7D, or 7E may be used. If Method 7C, 7D, or 7E is used, the sampling time for each run shall be at least 1 hour and the integrated sampling approach shall be used to determine the O<sub>2</sub> concentration (%O<sub>2</sub>) for the emission rate correction factor.

(6) For Method 3, Method 3A or 3B may be used.

(7) For Method 3B, Method 3A may be used.

[40 CFR 60.46(d)(1), (2), (3), (4), (5), (6), & (7)]

D.28. to D.35. [Reserved.]

### **Continuous Monitoring Requirements**

D.36. The owner or operator shall install, calibrate, maintain, and operate continuous monitoring systems for measuring nitrogen oxide emissions, and oxygen or carbon dioxide.

[40 CFR 60.45(a) & (b)]

**D.37.** For performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d), the following procedures shall be used:  
 (2) Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60.  
 (3) For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be 80, 90, or 100 percent and for a continuous monitoring system measuring sulfur oxides or nitrogen oxides the span value shall be determined as follows:

[In parts per million]

Fossil fuel	Span value for sulfur dioxide	Span value for nitrogen oxides
Gas.....	{1}	500
Liquid.....	1,000	500
Solid.....	1,500	1000
Combinations.....	1,000y+1,500z	500(x+y)+1,000z

{1} Not applicable.

where:

x = the fraction of total heat input derived from gaseous fossil fuel, and  
 y = the fraction of total heat input derived from liquid fossil fuel, and  
 z = the fraction of total heat input derived from solid fossil fuel.

[40 CFR 60.45(c)(2) & (3)]

{Permitting note: The Stationary Source Compliance Division has determined that continuous emissions monitor (CEMs) requirements of 40 CFR Part 75 (Acid Rain) are equivalent to or more stringent than the requirements of 40 CFR Part 60 (NSPS). EPA and the Department do accept Acid Rain CEMs as NSPS CEMs provided that the utility demonstrates compliance with all applicable NSPS regulations. (Memorandum from John B. Rasnic, Director)}

**D.38.** For any continuous monitoring system installed under 40 CFR 60.45(a), the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/million Btu):

(1) When a continuous monitoring system for measuring oxygen is selected, the measurement of the pollutant concentration and oxygen concentration shall each be on a consistent basis (wet or dry). Alternative procedures approved by the Administrator shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used:

$$E = CF[20.9/(20.9-\text{percent O}_2)]$$

where:

E, C, F, and % O<sub>2</sub> are determined under 40 CFR 60.45(f).

[40 CFR 60.45(e)(1)]

**D.39.** The values used in the equations under 40 CFR 60.45(e) (1) are derived as follows:

(1) E = pollutant emissions, ng/J (lb/million Btu).

(2) C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by  $4.15 \times 10^4$  M ng/dscm per ppm ( $2.59 \times 10^{-9}$  M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). M = 64.07 for sulfur dioxide and 46.01 for nitrogen oxides.

(3) % O<sub>2</sub>, % CO<sub>2</sub> = oxygen or carbon dioxide volume (expressed as percent), determined with equipment specified under 40 CFR 60.45(a).

(4) F, F<sub>C</sub> = a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of carbon dioxide generated to the calorific value of the fuel combusted (F<sub>C</sub>), respectively. Values of F and F<sub>C</sub> are given as follows:

(iii) For liquid fossil fuels including crude, residual, and distillate oils,  $F = 2.476 \times 10^{-7}$  dscm/J (9,220 dscf/million Btu) and  $F_C = 0.384 \times 10^{-7}$  scm CO<sub>2</sub> /J (1,430 scf CO<sub>2</sub> /million Btu).

(iv) For gaseous fossil fuels,  $F = 2.347 \times 10^{-7}$  dscm/J (8,740 dscf/million Btu). For natural gas, propane, and butane fuels,  $F_C = 0.279 \times 10^{-7}$  scm CO<sub>2</sub> /J (1,040 scf CO<sub>2</sub> /million Btu) for natural gas,  $0.322 \times 10^{-7}$  scm CO<sub>2</sub> /J (1,200 scf CO<sub>2</sub>/million Btu) for propane, and  $0.338 \times 10^{-7}$  scm CO<sub>2</sub> /J (1,260 scf CO<sub>2</sub> /million Btu) for butane.

(5) The owner or operator may use the following equation to determine an F factor (dscm/J or dscf/million Btu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Administrator) or F<sub>C</sub> factor (scm CO<sub>2</sub> /J, or scf CO<sub>2</sub> /million Btu) on either basis in lieu of the F or F<sub>C</sub> factors specified in 40 CFR 60.45(f)(4):

$$F = 10^{-6} \frac{[227.2 (\text{pct. H}) + 95.5 (\text{pct. C}) + 35.6 (\text{pct. S}) + 8.7 (\text{pct. N}) - 28.7 (\text{pct. O})]}{\text{GCV}}$$

$$F_C = \frac{2.0 \times 10^{-5} (\text{pct. C})}{\text{GCV}}$$

(SI units)

$$F = 10^6 \frac{3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O)}{\text{GCV}}$$

(English units)

$$F_C = \frac{321 \times 10^3 (\%C)}{\text{GCV}}$$

(English units)

(i) H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM method D3178-74 or D3176 (solid fuels) or computed from results using ASTM method D1137-53(75), D1945-64(76), or D1946-77 (gaseous fuels) as applicable. (These five methods are incorporated by reference-see 40 CFR 60.17.)

(ii) GCV is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted determined by the ASTM test methods D2015-77 for solid fuels and D1826-77 for gaseous fuels as applicable. (These two methods are incorporated by reference-see 40 CFR 60.17.)

(6) For affected facilities firing combinations of fossil fuels, the F or F<sub>C</sub> factors determined by paragraphs 40 CFR 60.45(f)(4) or (f)(5) shall be prorated in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^n X_i F_i \quad \text{or} \quad F_C = \sum_{i=1}^n X_i (F_C)_i$$

where:

X<sub>i</sub> = the fraction of total heat input derived from each type of fuel (e.g. natural gas, bituminous coal, wood residue, etc.)

F<sub>i</sub> or (F<sub>C</sub>)<sub>i</sub> = the applicable F or F<sub>C</sub> factor for each fuel type determined in accordance with paragraphs (f)(4) and (f)(5) of this section.

n = the number of fuels being burned in combination.

[40 CFR 60.45(f)(1), (2), (3), (4), (5), & (6)]

### **Recordkeeping and Reporting Requirements**

**D.40.** Excess emission and monitoring system performance reports shall be submitted to the Administrator for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. Each excess emission and monitoring systems performance report shall include the information required in 40 CFR 60.7(c). The summary report form shall contain the information and be in the format shown in figure 1 (attached to this permit) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

[40 CFR 60.7(d) & 60.45(g)]

**D.41. to D.42.** [Reserved.]

**D.43.** 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.]

**D.44. to D.45.** [Reserved.]

### **Miscellaneous Requirements.**

**D.46. Definitions.** For the purposes of Rule 62-204.800(8), 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(8)(a), F.A.C.]

**D.47. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

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

**Subsection E. Common Conditions.**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-004	16.5 MW Boiler - Unit #6
-007	37.5 MW Boiler - Unit #7
-008	56.1 MW Boiler - Unit #8

The following conditions apply to the emissions units listed above:

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

**E.1.** The total combined heat input for Emissions Units -004, -007 and -008 (Units #6, #7, and #8) shall not exceed 4,534,930 million Btu per year.

[AC 56-141460, amended 11/9/90; and, OGC Case No. 91-1610: Final Order filed 7/21/92]

**E.2.** No. 2 fuel oil can be fired as a standby fuel for up to a combined total of 400 hours per year, when necessary in order to avoid curtailing electric power to the facility's customers.

[OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

**Emission Limitations and Standards**

{Permitting note: Unless otherwise specified, the averaging time for specific condition **E.3.** is based on the specified averaging time of the applicable test method.}

**E.3.** The total combined emissions from Emissions Units -004, -007 and -008 (Units #6, #7, and #8) shall not exceed:

<b>PARAMETER</b>	<b>TONS PER YEAR</b>
Particulate Matter	16.0
Sulfur Dioxide	101.6
Nitrogen Oxides	622.0
Volatile Organic Compounds	2.3
Carbon Monoxide	45.3

[OGC Case No. 91-1610: Final Order filed 7/21/92]

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

**Excess Emissions**

**E.4.** 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.]

**E.5.** 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.]

**E.6.** 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**

#### **E.7. 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**

**E.8. 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.]

**E.9.. 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.]

**E.10. 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.]

**E.11. 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, attached to this permit.

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

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

**E.12. 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.]

**E.13. 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 fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

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

(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.]

**E.14.** 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.]

**E.15.** 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**

**E.16.** 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.]

**E.17.** All recorded data shall be maintained on file by the Source for a period of five years.

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

### **E.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.

(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.]

**E.19.** The permittee must notify the DEP within 24 hours after commencement of oil firing and furnish the following information:

- a. Duration or projected duration of the event.
- b. Quantity of fuel oil burned or projected to be burned.
- c. A description of significant circumstances precipitating the event, which shall include:
  - (1) Availability of power for purchase
  - (2) Availability of electric transmission capacity relating to power purchases
  - (3) Availability of natural gas
  - (4) Availability of the permittee's generation sources

[OGC Case No. 91-1610: Final Order filed 7/21/92; and, applicant request dated 11/30/99]

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

**Operated by:** Fort Pierce Utilities Authority  
**ORIS code:** 0658

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

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

E.U. ID No.	Description
-007	37.5 MW Boiler - Unit #7
-008	56.1 MW Boiler - Unit #8

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

a. DEP Form No. 62-210.900(1)(a), signed by the Designated Representative on July 9, 2007.  
[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
-007	ID No. 07	SO <sub>2</sub> allowances, under Table 2 of 40 CFR Part 73	63*	63*	65*	65*	65*
-008	ID No. 08	SO <sub>2</sub> allowances, under Table 2 of 40 CFR Part 73	26*	26*	34*	34*	34*

\*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), F.A.C.]

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

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

**A.5. Comments, notes, and justifications:** none

**A.6.** Where an applicable requirement of the Act is more stringent than an applicable requirement of 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, Definitions - Applicable Requirements, F.A.C.]

**Appendix U-1: List of Unregulated Emissions Units and/or Activities.**

Fort Pierce Utilities Authority  
**H. D. King Power Plant**

PROPOSED Permit No. 1110003-008-AV  
Facility ID No. 1110003

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

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘insignificant emissions units’.

<b>E.U. ID No.</b>	<b>Brief Description of Emissions Units and/or Activity</b>
-001	2.75 MW West Diesel #1
-002	2.75 MW East Diesel #2
-009	Cooling Tower
-010	General Purpose Internal Combustion Engines

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

Fort Pierce Utilities Authority  
H. D. King Power Plant

PROPOSED Permit No. 1110003-008-AV  
Facility ID No. 1110003

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The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

### Brief Description of Emissions Units and/or Activities

1. No. 2 Fuel Oil Storage Tank #5 – 922,901 gallons.
2. Waste Oil Storage Tank.
3. Compressed Nitrogen Bottles.
4. Storage and Use of Water Treatment Chemicals.
5. 55 Gallon Drum of Trichloroethylene and Perchloroethylene.
6. Lube Oil Storage Area.
7. Parts Washer (aliphatic hydrocarbon solvent).
8. Miscellaneous Painting Activities.
9. Miscellaneous Welding Activities.
10. Oil/Water Separator.



## Appendix H-1: Permit History

Fort Pierce Utilities Authority  
H. D. King Power Plant

Permit No. 1110003-008-AV  
Facility ID No. 1110003

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E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
	Facility	1110003-003-AV	01/01/1998	12/31/2002	Initial
-008	Unit #8	1110003-006-AV	02/28/2000	12/31/2002	Admin. Correction
All	Facility	1110003-004-AV	05/25/2000	12/31/2002	Revision
-007	Unit #7	1110003-007-AV	09/20/2000	12/31/2002	Admin. Correction
All	Facility	1110003-005-AV	01/01/2003	12/31/2007	Renewal

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500  
Gainesville, FL 32653-1500  
Telephone (352) 336-5600  
Fax (352) 336-6603



September 24, 2007

0738-7523

Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Attention: Mr. Tom Casio, P.E.

**RE: FT. PIERCE UTILITIES AUTHORITY  
TITLE V PERMIT RENEWAL – CAM PLAN**

Dear Mr. Casio:

In response to your request, a Compliance Assurance Monitoring (CAM) Plan has been prepared for the combined cycle gas turbine unit No. 9 (EU ID 003) at the Ft. Pierce Utilities Authority's (FPUA) H.D. King Power Plant and is attached with this letter.

The gas turbine unit No. 9 is a 23.4-megawatt (MW) natural gas or No. 2 oil-fired combined-cycle unit and uses steam injection for nitrogen oxides (NO<sub>x</sub>) emissions control. The unit is subject to 40 CFR 60 Subpart GG and has a continuous emissions monitoring system to monitor and record the fuel consumption and the ratio of steam to fuel being fired in the turbine. FPUA proposes to use the continuous monitoring of steam-to-fuel ratio as the CAM for NO<sub>x</sub> emissions. The unit is subject to a NO<sub>x</sub> emissions limit of 84 parts per million by volume (ppmv) at 15 percent oxygen on a dry basis.

FPUA operates a General Electric (GE) Mark IV continuous monitoring system, which records fuel flow, steam flow, actual steam-to-fuel ratio, and steam-to-fuel ratio required to meet the emissions limit. Based on the 1989 stack test report and current actual observations, a steam-to-fuel ratio versus load curve was generated, which is shown in the attachments. Also based on the actual observations, the required steam-to-fuel ratio at approximately 20 MW operating load is 0.15. A second steam-to-fuel ratio versus load curve was generated from the required ratio of 0.15 and the slope of the actual observations curve. This new curve shows the level of required steam-to-fuel ratio at any operating load. It is to be noted that steam injection is used only at operating loads of 75-percent or higher.

Thank you for consideration of this information. If you have any questions, please do not hesitate to call me at (352) 336-5600.

Sincerely,

**GOLDER ASSOCIATES INC.**

Kennard Kosky, P.E.  
Principal Engineer

Salahuddin Mohammad  
Staff Engineer

SKM/tz

Enclosures

cc: John Tompeck, FPUA

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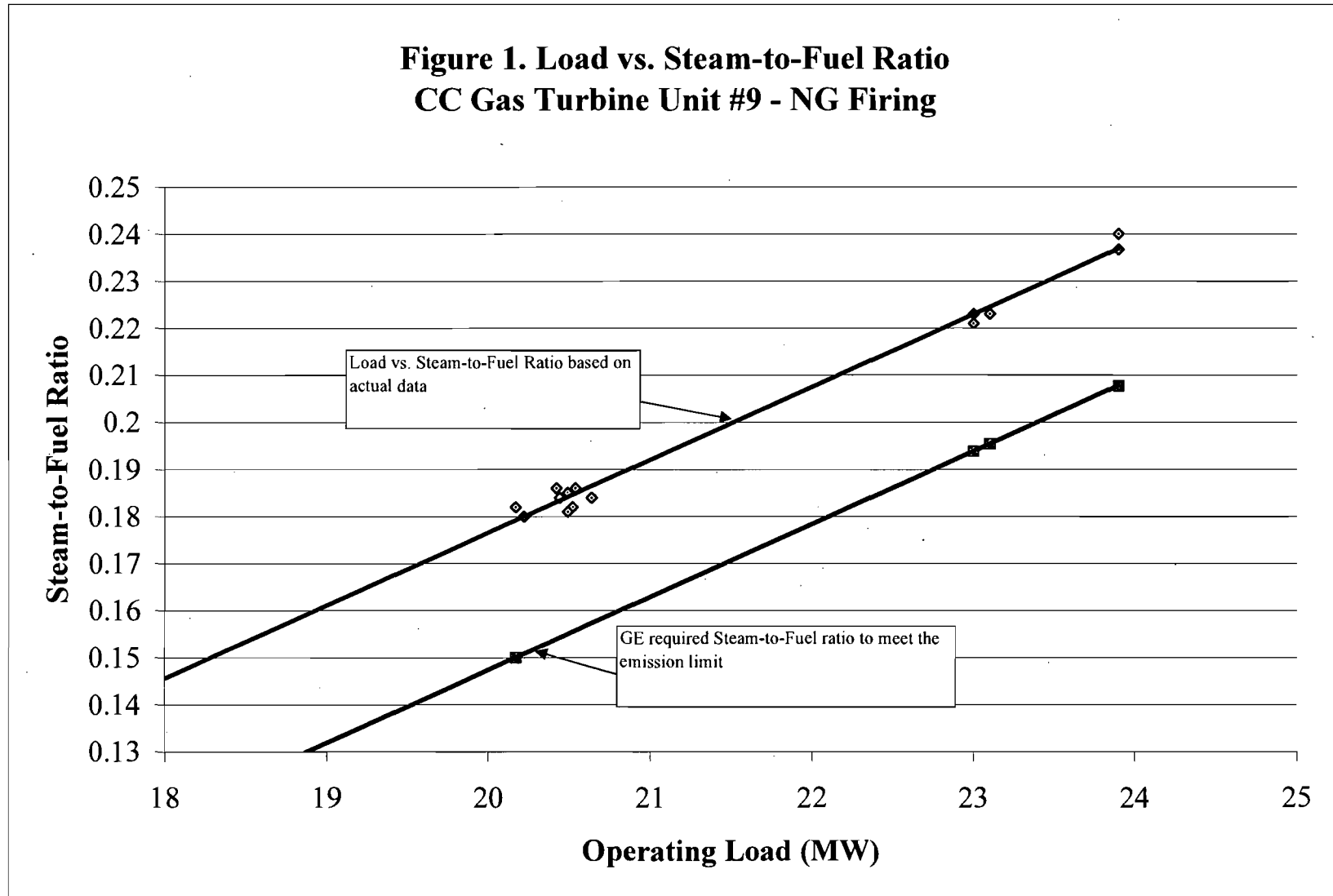
### MONITORING APPROACH

	<b>Compliance Indicator</b>
Indicator	Steam-to-fuel ratio.
Measurement Approach	Continuous monitoring system measuring steam injection rate, fuel consumption, and steam-to-fuel ratio.
Indicator Range	An excursion is defined as a rolling average of any 60 consecutive 1-minute averages that the steam-to-fuel ratio falls below required steam-to-flow ratio. This is calculated based on actual operating load plot (shown in Figure 1, data in Table 1) prepared from stack test data and actual observations of the GE required steam-to-flow ratio to meet the emission limit. If there is a problem with the fuel or steam flow that causes the steam-to-fuel ratio to fall below the required ratio during any rolling hourly average, an alarm alerts the control room of the problem. Since the data is monitored as a rolling hourly average and the compliance standard is based on block 1-hour averages, an alarm allows the operator to investigate the case and prevent a non-compliance situation from occurring.
Data Representativeness	The GE Mark IV Speedtronic continuous monitoring system continuously monitors the fuel flow rate and sends a signal to the steam flow control valve to adjust the flow to meet the required ratio. The required ratio is calculated by the Mark IV Speedtronic based on algorithms programmed into the system to account for varying ambient conditions (temperature and relative humidity).
Verification of Operational Status	(1) Annual compliance testing (2) Confirming the actual versus required steam-to-fuel ratios.
QA/QC Practices and Criteria	Operate and maintain the GE Mark IV Speedtronic continuous monitor according to manufacturer's specifications. All metering equipment, including transmitters, are calibrated annually and meet manufacturer requirements.
Monitoring Frequency	Continuous.
Data Collection Procedures	The GE Mark IV Speedtronic continuous monitoring system monitors the steam flow and fuel flow every second and at the end of each minute, the sixty one-second data entries are averaged and recorded as the one-minute averages. The data collection system calculates the steam-to-fuel ratio.
Averaging Period	The averaging period for steam-to-fuel ratio is 1 minute.

**TABLE 1.**  
**STEAM-TO-FUEL RATIO AND OPERATING LOAD DATA FOR UNIT NO. 9**  
**FT. PIERCE UTILITIES AUTHORITY**

Date	Time	Run No.	Operating Load		Steam Injection (lb/sec)	Fuel Flow (lb/sec)	Steam-to Fuel Ratio
			(%)	(MW)			
8/14/2007	17:00	--	--	20.17	--		0.182
	16:00	--	--	20.52	--		0.182
	15:00	--	--	20.49	--		0.181
8/13/2007	16:41	--	--	20.64	--		0.184
	15:41	--	--	20.54	--		0.186
	14:41	--	--	20.44	--		0.184
8/12/2007	17:34	--	--	20.42	--		0.186
	16:34	--	--	20.22	--		0.18
	15:34	--	--	20.49	--		0.185
9/13/1989	16:45	1	100	23	0.82	3.71	0.221
	17:19	2	100	23	0.83	3.72	0.223
	17:54	3	100	23.1	0.83	3.72	0.223
	19:24	4	100	23.9	0.91	3.79	0.240
	19:54	5	100	23.9	0.9	3.8	0.237
	20:22	6	100	23.9	0.9	3.8	0.237
	16:45	7	75	17.9	0	3.1	0.000
	17:19	8	75	17.8	0	3.09	0.000
	17:54	9	75	17.8	0	3.09	0.000
	16:45	10	30	7.6	0	2.02	0.000
	17:19	11	30	7.6	0	2.03	0.000
	17:54	12	30	7.5	0	2.02	0.000

Note: Steam injection is used only for loads 75-percent or higher. Data from 9/13/1989 are stack test data. Data from 8/12/2007 to 8/14/2007 are actual observations.



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

Ft. Pierce Utilities Authority  
H. D. King Power Plant

Title V Permit Renewal No. 1110003-008-AV  
Facility ID No.: 1110003

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

**E.U. ID No.**      **Brief Description**  
[-003]      23.4 MW Combined Cycle Gas Turbine with 8.2 MW HRSG - Unit #9

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
NO <sub>x</sub>	All	8,760	STD=0.0075(14.4)Y + F (Max 84 ppm)			135.69	592.69	40 CFR 60.332(a)(1) & AC 56-141460	A.5.
SO <sub>2</sub>	All	8,760	0.015% vol. @ 15% Oxygen			319.51	1,395.62	40 CFR 60.332(a)(1) & AC 56-141460	A.6.
SO <sub>2</sub>	Oil	8,760	0.5% S by weight			319.51	1,395.62	AC 56-141460	A.7.
VE	All	8,760	Not to exceed 15%					AC 56-141460	A.8.
CO	All	8,760		32.85	110.4			AC 56-141460	A.9.

Notes:

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

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

Ft. Pierce Utilities Authority  
H. D. King Power Plant

**Title V Permit Renewal No.:** 1110003-008-AV  
**Facility ID No.:** 1110003

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

**E.U. ID No.    Brief Description**  
[-004]        16.5 MW Boiler - Unit #6

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
VE	Gas	8,760	Not Exceed 5%					OGC Case#91-1610	B.5.
VE	Oil	8,760	20% except 40% 2 min/hr					OGC Case#91-1610	B.5.
VE	All	8,760	60% 3 hrs/24 hrs					62-210.700(3), FAC	B.6.
PM	Gas	8,760		0.4	16.0**			OGC Case#91-1610	B.7. & E.3.
PM	Oil	400	0.1 lb/MMBtu		16.0**			OGC Case#91-1610	B.7. & E.3.
PM	Oil		0.3 lb/MMBtu 3hrs/24 hrs		16.0**			62-210.700(3), FAC	B.8. & E.3.
SO <sub>2</sub>	Gas	8,760		2.5	101.6**			OGC Case#91-1610	B.9. & E.3.
SO <sub>2</sub>	Oil	8,760	0.80 lb/MMBtu		101.6**			OGC Case#91-1610	B.9. & E.3.
NO <sub>x</sub>	Gas	8,760		1.31	622.0**			OGC Case#91-1610	B.10. & E.3.
VOC	Gas	8,760		0.0236	2.3**			OGC Case#91-1610	B.11. & E.3.
CO	Gas	8,760		0.15	45.3**			OGC Case#91-1610	B.12. & E.3.

Notes:  
\* The "Equivalent Emissions" listed are for informational purposes only.  
\*\* The total combined emissions from EU [-004], [-007], and [-008]

[electronic file name: 11100031.xls]

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

Ft. Pierce Utilities Authority  
H. D. King Power Plant

**Title V Permit Renewal No.:** 1110003-008-AV  
**Facility ID No.:** 1110003

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

**E.U. ID No.**      **Brief Description**  
[-007]              37.5 MW Boiler - Unit #7

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
VE	Gas	8,760	Not Exceed 5%					OGC Case#91-1610	C.5.
VE	Oil	8,760	20% except 40% 2 min/hr					OGC Case#91-1610	C.5.
VE	All	8,760	60% 3 hrs/24 hrs					62-210.700(3), FAC	C.6.
PM	Gas	8,760		0.568	16.0**			OGC Case#91-1610	C.7. & E.3.
PM	Oil		0.1 lb/MMBtu		16.0**			OGC Case#91-1610	C.7. & E.3.
PM	Oil		0.3 lb/MMBtu 3hrs/24 hrs		16.0**			62-210.700(3), FAC	C.8. & E.3.
SO <sub>2</sub>	Gas	8,760		2.5	101.6**			OGC Case#91-1610	C.9. & E.3.
SO <sub>2</sub>	Oil	8,760	0.80 lb/MMBtu		101.6**			OGC Case#91-1610	C.9. & E.3.
NO <sub>x</sub>	Gas	8,760		104.35	622.0**			OGC Case#91-1610	C.10. & E.3.
VOC	Gas	8,760		0.266	2.3**			OGC Case#91-1610	C.11. & E.3.
CO	Gas	8,760		7.589	45.3**			OGC Case#91-1610	C.12. & E.3.

Notes:  
\* The "Equivalent Emissions" listed are for informational purposes only.  
\*\* The total combined emissions from EU [-004], [-007], and [-008]



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

Ft. Pierce Utilities Authority  
H. D. King Power Plant

Title V Permit Renewal No.: 1110003-008-AV  
Facility ID No.: 1110003

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

E.U. ID No.      Brief Description  
[-008]            56.1 MW Boiler - Unit #8

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
VE	Gas	8,760	Not Exceed 5%					OGC Case#91-1610	D.5.
VE	Oil	8,760	20% except 27% 6 min/hr					OGC Case#91-1610	D.5.
VE	All	8,760	60% 3 hrs/24 hrs					62-210.700(3), FAC	D.6.
PM	Gas	8,760		0.945	16.0**			OGC Case#91-1610	D.7. & E.3.
PM	Oil		0.1 lb/MMBtu		16.0**			OGC Case#91-1610	D.7. & E.3.
PM	Oil		0.3 lb/MMBtu 3hrs/24 hrs		16.0**			62-210.700(3), FAC	D.8. & E.3.
SO <sub>2</sub>	Gas	8,760		2.5	101.6**			OGC Case#91-1610	D.9. & E.3.
SO <sub>2</sub>	Oil	8,760	0.80 lb/MMBtu		101.6**			OGC Case#91-1610	D.9. & E.3.
NO <sub>x</sub>	Gas	8,760	0.20 lb/MMBtu		622.0**			OGC Case#91-1610 & 40 CFR 60.44(a)(1)	D.10. & E.3.
NO <sub>x</sub>	Oil	8,760	0.30 lb/MMBtu		622.0**			OGC Case#91-1610 & 40 CFR 60.44(a)(2)	D.10. & E.3.
VOC	Gas	8,760		0.441	2.3**			OGC Case#91-1610	D.11. & E.3.
CO	Gas	8,760		12.59	45.3**			OGC Case#91-1610	D.12. & E.3.

Notes:  
\* The "Equivalent Emissions" listed are for informational purposes only.  
\*\* The total combined emissions from EU [-004], [-007], and [-008]

## Table 2-1, Summary of Compliance Requirements

Ft. Pierce Utilities Authority  
H. D. King Power Plant

Title V Permit Renewal No. 1110003-008-AV  
Facility ID No. 1110003

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

**E.U. ID No.**      **Brief Description**  
[-003]      23.4 MW Combined Cycle Gas Turbine with 8.2 MW HRSG - Unit #9

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	
						CMS**	See permit condition(s)
NO <sub>x</sub>	All	EPA Method 20	Annual	9/30/1990	1 hr	Yes	A.14., A.18, A.19., & A.22.
SO <sub>2</sub>	All	EPA Method 20	Annual	9/30/1990	1 hr		A.14., A.18, A.19., & A.22.
SO <sub>2</sub>	Oil	Fuel Analysis		9/30/1990			A.21.
VE	All	EPA Method 9	Annual	9/30/1990	60 min		A.23.
CO	All	EPA Method 10	Annual	9/30/1990	1 hr		A.24.

**Notes:**

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

\*\*CMS [=] continuous monitoring system

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

Ft. Pierce Utilities Authority  
H. D. King Power Plant

**Title V Permit Renewal No. 1110003-008-AV**  
**Facility ID No. 1110003**

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

**E.U. ID No.**      **Brief Description**  
[-004]            16.5 MW Boiler - Unit #6

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing	Frequency	Min. Compliance	CMS**	See permit condition(s)
			Time Frequency	Base Date*	Test Duration		
VE	Gas	EPA Method 9	Annual	6/24/1983	30 min		B.17. & B.31.
VE	Oil	DEP Method 9	Annual	6/24/1983	60 min		B.17. & B.18.
PM	All	EPA Method 5	Renewal	6/24/1983	60 min		B.18., B.30. & B.32.
SO <sub>2</sub>	All	EPA Method 6 or 6C or Fuel Analysis	Annual	6/24/1983	60 min		B.20., B.21. & B.30.
NO <sub>x</sub>	Gas	EPA Method 7 or 7E	Annual	6/24/1983	60 min		B.22. & B.30.
VOC	Gas	EPA Method 25A	Renewal	6/24/1983	60 min		B.23. & B.30.
CO	Gas	EPA Method 10	Renewal	6/24/1983	60 min		B.24. & B.30.

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

## Table 2-1, Summary of Compliance Requirements

Ft. Pierce Utilities Authority  
H. D. King Power Plant

Title V Permit Renewal No. 1110003-008-AV  
Facility ID No. 1110003

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

**E.U. ID No.**      **Brief Description**  
[-007]      37.5 MW Boiler - Unit #7

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	Compliance System	
						CMS**	See permit condition(s)
VE	Gas	EPA Method 9	Annual	9/30/1991	30 min		C.17. & C.31.
VE	Oil	DEP Method 9	Annual	9/30/1991	60 min		C.17. & C.18.
PM	All	EPA Method 5	Renewal	9/30/1991	60 min		C.19., C.30. & C.32.
SO <sub>2</sub>	All	EPA Method 6 or 6C or Fuel Analysis	Annual	9/30/1991	60 min		C.20., C.21. & C.30.
NO <sub>x</sub>	Gas	EPA Method 7 or 7E	Annual	9/30/1991	60 min		C.22. & C.30.
VOC	Gas	EPA Method 25A	Renewal	9/30/1991	60 min		C.23. & C.30.
CO	Gas	EPA Method 10	Renewal	9/30/1991	60 min		C.24. & C.30.

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

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

Ft. Pierce Utilities Authority  
H. D. King Power Plant

**Title V Permit Renewal No. 1110003-008-AV**  
**Facility ID No. 1110003**

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

**E.U. ID No.**      **Brief Description**  
[-008]      56.1 MW Boiler - Unit #8

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time	Frequency Base	Min. Compliance Test	CMS**	See permit condition(s)
			Frequency	Date *	Duration		
VE	Gas	EPA Method 9	Annual	9/30/1991	30 min	Yes	D.18.. & D.34.
VE	Oil	DEP Method 9	Annual	9/30/1991	60 min		D.18.. & D.19.
PM	All	EPA Method 5	Renewal	9/30/1991	60 min		D.20., D.33. & D.35.
SO <sub>2</sub>	All	EPA Method 6 or 6C or Fuel Analysis	Annual	9/30/1991	60 min		D.21., D.22. & D.33.
NO <sub>x</sub>	Gas	EPA Method 7 or 7E	Annual	9/30/1991	60 min		D.23. & D.33.
VOC	Gas	EPA Method 25A	Renewal	9/30/1991	60 min		D.24. & D.33.
CO	Gas	EPA Method 10	Renewal	9/30/1991	60 min		D.25. & D.33.

**Notes:**

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

\*\*CMS [=] continuous monitoring system

**Friday, Barbara**

---

**To:** trichards@fpua.com; 'KKosky@Golder.com'; Hoefert, Lee  
**Cc:** Cascio, Tom  
**Subject:** PROPOSED Title V Permit Renewal No.: 1110003-008-AV - Ft. Pierce Utilities Authority-H.D. King Power Plant  
**Attachments:** 1110003.008.AV.P\_pdf[1].zip

Dear Sir/Madam:

A copy of the "PROPOSED PERMIT DETERMINATION" and the related permit documents for the above referenced facility are attached. This e-mail is being provided as a courtesy to inform you that the DRAFT permit has become a PROPOSED permit, and that the PROPOSED permit has been transmitted to the USEPA for their review.

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

The attached document(s) is(are) in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site:  
<http://www.adobe.com/products/acrobat/readstep.html>.

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. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

11/14/2007

**Friday, Barbara**

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**From:** System Administrator  
**To:** Hoefert, Lee  
**Sent:** Wednesday, November 14, 2007 8:42 AM  
**Subject:** Delivered:PROPOSED Title V Permit Renewal No.: 1110003-008-AV - Ft. Pierce Utilities Authority-H.D. King Power Plant

Your message

**To:** 'trichards@fpua.com'; 'KKosky@Golder.com'; Hoefert, Lee  
**Cc:** Cascio, Tom  
**Subject:** PROPOSED Title V Permit Renewal No.: 1110003-008-AV - Ft. Pierce Utilities Authority-H.D. King Power Plant  
**Sent:** 11/14/2007 8:42 AM

was delivered to the following recipient(s):

Hoefert, Lee on 11/14/2007 8:42 AM

**Friday, Barbara**

---

**From:** System Administrator  
**To:** Cascio, Tom  
**Sent:** Wednesday, November 14, 2007 8:43 AM  
**Subject:** Delivered:PROPOSED Title V Permit Renewal No.: 1110003-008-AV - Ft. Pierce Utilities Authority-H.D. King Power Plant

Your message

**To:** 'trichards@fpua.com'; 'KKosky@Golder.com'; Hoefert, Lee  
**Cc:** Cascio, Tom  
**Subject:** PROPOSED Title V Permit Renewal No.: 1110003-008-AV - Ft. Pierce Utilities Authority-H.D. King Power Plant  
**Sent:** 11/14/2007 8:42 AM

was delivered to the following recipient(s):

Cascio, Tom on 11/14/2007 8:42 AM



**Friday, Barbara**

---

**From:** Exchange Administrator  
**Sent:** Wednesday, November 14, 2007 8:43 AM  
**To:** Friday, Barbara  
**Subject:** Delivery Status Notification (Relay)

**Attachments:** ATT800159.txt; PROPOSED Title V Permit Renewal No.: 1110003-008-AV - Ft. Pierce Utilities Authority-H.D. King Power Plant



ATT800159.txt  
(285 B)

PROPOSED Title V  
Permit Renewa...

This is an automatically generated Delivery Status Notification.

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

trichards@fpu.com

## Friday, Barbara

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**From:** Mail Delivery System [MAILER-DAEMON@sophos.golder.com]  
**Sent:** Wednesday, November 14, 2007 8:43 AM  
**To:** Friday, Barbara  
**Subject:** Successful Mail Delivery Report

**Attachments:** Delivery report; Message Headers



Delivery report.txt  
(457 B)



Message  
Headers.txt (2 KB)

This is the mail system at host sophos.golder.com.

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

The mail system

<KKosky@Golder.com>: delivery via 127.0.0.1[127.0.0.1]:10025: 250 OK, sent  
473AFB4A\_11580\_159\_1

## Friday, Barbara

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**From:** Hoefert, Lee  
**To:** Friday, Barbara  
**Sent:** Wednesday, November 14, 2007 8:47 AM  
**Subject:** Read: PROPOSED Title V Permit Renewal No.: 1110003-008-AV - Ft. Pierce Utilities Authority-H.D. King Power Plant

Your message

**To:** 'trichards@fpua.com'; 'KKosky@Golder.com'; Hoefert, Lee  
**Cc:** Cascio, Tom  
**Subject:** PROPOSED Title V Permit Renewal No.: 1110003-008-AV - Ft. Pierce Utilities Authority-H.D. King Power Plant  
**Sent:** 11/14/2007 8:42 AM

was read on 11/14/2007 8:47 AM.

## Friday, Barbara

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**From:** Tom Richards [tom@fpua.com]  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 20, 2007 3:27 PM  
**Subject:** Read: PROPOSED Title V Permit Renewal No.: 1110003-008-AV - Ft. Pierce Utilities Authority-H.D. King Power Plant

Your message

To: tom@fpua.com  
Subject:

was read on 11/20/2007 3:27 PM.