To:

trichards@fpua.com; 'KKosky@Golder.com'; Hoefert, Lee

Cc:

Cascio, Tom

Subject:

DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D.

King Power Plant

Attachments: 1110003.008.AV.D\_pdf[1].zip

Dear Sir/Madam:

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

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

The document is 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

FACILITY ID: 11000		
PERMIT TYPE: /// DOCUMENT TYPE(S)/DATE:		
Coffrespondence/ V Draft/ 0-5-07	· & · ( · R9 5 · · · ·	fotal batch
Revised Draft/  Proposed/	68 695 7 71 895	233 pgs.
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		s Fridelj
1. Submitted 7-22-	08	

From:

System Administrator

To:

Hoefert, Lee

Sent:

Friday, October 05, 2007 10:31 AM

Subject:

Delivered:DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority

- H.D. King Power Plant

#### Your message

To:

'trichards@fpua.com'; 'KKosky@Golder.com'; Hoefert, Lee

Cc:

ascio, Tom

Subject:

DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D. King Power Plant

Sent:

10/5/2007 10:31 AM

was delivered to the following recipient(s):

Hoefert, Lee on 10/5/2007 10:31 AM

From:

System Administrator

To:

Cascio, Tom

Sent:

Friday, October 05, 2007 10:31 AM

Subject:

Delivered:DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority

- H.D. King Power Plant

#### Your message

To:

'trichards@fpua.com'; 'KKosky@Golder.com'; Hoefert, Lee

Cc:

Subject:

Cascio, Tom
DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D. King Power Plant

Sent:

10/5/2007 10:31 AM

was delivered to the following recipient(s):

Cascio, Tom on 10/5/2007 10:31 AM

From:

Exchange Administrator

Sent:

Friday, October 05, 2007 10:31 AM

To:

Friday, Barbara

Subject:

Delivery Status Notification (Relay)

Attachments:

ATT406386.txt; DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities

Authority - H.D. King Power Plant





ATT406386.txt (284 B)

DRAFT Title V

Permit Renewal N...

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@fpua.com

From:

Mail Delivery System [MAILER-DAEMON@sophos.golder.com]

Sent:

Friday, October 05, 2007 10:31 AM

To:

Friday, Barbara

Subject:

Successful Mail Delivery Report

Attachments:

Delivery report; Message Headers





Delivery report.txt (455 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 47064AA1 19348 7 1

From: Hoefert, Lee

Sent:

Friday, October 05, 2007 10:55 AM

To:

Friday, Barbara

Subject: RE: DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D.

King Power Plant

Lee C. Hoefert, P.E. Air Program Administrator Florida Department of Environmental Protection Southeast District 400 N. Congress Ave., Suite 200 West Palm Beach, FL 33401 561-681-6626(Phone), 561-681-6790(Fax)

From: Friday, Barbara

**Sent:** Friday, October 05, 2007 10:31 AM

To: 'trichards@fpua.com'; 'KKosky@Golder.com'; Hoefert, Lee

Cc: Cascio, Tom

Subject: DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D. King Power

Plant

#### Dear Sir/Madam:

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

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Thank you,

DEP, Bureau of Air Regulation

From:

Hoefert, Lee

To:

Friday, Barbara

Sent:

Friday, October 05, 2007 10:55 AM

Subject:

Read: DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority -

H.D. King Power Plant

#### Your message

To:

'trichards@fpua.com'; 'KKosky@Golder.com'; Hoefert, Lee

Cc:

Cascio, Tom

Subject:

DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D. King Power Plant

Sent:

10/5/2007 10:31 AM

was read on 10/5/2007 10:55 AM.

From:

Tom Richards [tom@fpua.com]

To:

Friday, Barbara

Sent:

Friday, October 05, 2007 11:18 AM

Subject:

Read: DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority -

H.D. King Power Plant

Your message

To:

tom@fpua.com

Subject:

was read on 10/5/2007 11:18 AM.

From: Hoefert, Lee

**Sent:** Friday, October 05, 2007 10:55 AM

To: Friday, Barbara

Subject: RE: DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D.

King Power Plant

Lee C. Hoefert, P.E. Air Program Administrator Florida Department of Environmental Protection Southeast District 400 N. Congress Ave., Suite 200 West Palm Beach, FL 33401 561-681-6626(Phone), 561-681-6790(Fax)

From: Friday, Barbara

**Sent:** Friday, October 05, 2007 10:31 AM

To: 'trichards@fpua.com'; 'KKosky@Golder.com'; Hoefert, Lee

Cc: Cascio, Tom

Subject: DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D. King Power

Plant

#### Dear Sir/Madam:

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Thank you,

DEP, Bureau of Air Regulation

From: Hoefert, Lee

**Sent:** Friday, October 05, 2007 10:55 AM

To: Friday, Barbara

Subject: RE: DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D.

King Power Plant

Lee C. Hoefert, P.E. Air Program Administrator Florida Department of Environmental Protection Southeast District 400 N. Congress Ave., Suite 200 West Palm Beach, FL 33401 561-681-6626(Phone), 561-681-6790(Fax)

From: Tom Richards [tom@fpua.com]

**Sent:** Friday, October 05, 2007 11:24 AM

To: Friday, Barbara

Subject: RE: DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D.

King Power Plant

received

## Tom

----Original Message----

From: Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]

**Sent:** Friday, October 05, 2007 10:31 AM

To: Tom Richards; KKosky@Golder.com; Hoefert, Lee

Cc: Cascio, Tom

Subject: DRAFT Title V Permit Renewal No.: 1110003-008-AV - Fort Pierce Utilities Authority - H.D. King

Power Plant

Dear Sir/Madam:

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

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Thank you,

DEP, Bureau of Air Regulation

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

#### **MEMORANDUM**

To:

Trina Vielhauer

Through:

Al Linero

From:

Tom Cascio

Date:

October 1, 2007

Re:

Intent Package for DRAFT Permit Renewal No. 1110003-008-AV

Fort Pierce Utilities Authority H. D. King Power Plant

The application was received on June 25, 2007, and deemed complete on September 26, 2007.

The facility had no significant projects since issuance of the previous Title V permit and this is routine renewal. This facility reported no noncompliance items at the time of application. This was verified by the Department's Southeast District compliance personnel.

The only significant change to the facility's current Title V permit is the addition of a Compliance Assurance Monitoring (CAM) plan for the combined-cycle combustion turbine (Unit #9).

We recommend that this Intent to Issue package be signed and forwarded to Patty for clerking.

#### P.E. CERTIFICATION STATEMENT

#### **PERMITTEE**

Mr. Thomas W. Richards, P.E. Fort Pierce Utilities Authority Post Office Box 3191 Fort Pierce, Florida 34948

DRAFT Air Permit No. 1110003-008-AV H. D. King Power Plant Title V Permit Renewal St. Lucie County, Florida

#### PROJECT DESCRIPTION

The applicant proposes to renew the Title V Operation Permit for the City of Fort Pierce H.D. King Power Plant. The facility is located at 311 North Indian River Drive, Fort Pierce, St. Lucie County.

This facility consists of three small fossil fuel steam generators and a single combined cycle unit. The four units have the following nominal capacities: 16.5 megawatts (MW), 37.5 MW, 56.1 MW and 31.8 MW (for the combined cycle unit).

A CAM plan was required for nitrogen oxides emissions from the combined cycle unit. The CAM plan (Appendix CAM) takes advantage of the steam to fuel ratio parameters that are already monitored for that unit.

The Department's Southeast District Air Program is the compliance authority for the facility. There are no compliance or enforcements issues at this time.

In my own review I adopted much of the earlier analysis prepared by permitting staff for Scott Sheplak, P.E., who supervised the preparation of the initial (1997) and renewal (2002) permits.

I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Alvaro A. Linero, P.E.

Registration Number: 26032

#### **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 permitting action is the routine renewal of the 5 year Title V Operation Permit (Permit Renewal) for the City of Fort Pierce H.D. King Power Plant. The key-change in the present renewal compared with the previous one is the addition of a compliance assurance monitoring (CAM) plan for their largest unit.

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 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.

This facility consists of three small fossil fuel steam generators and a single combined cycle unit. The four units have the following nominal capacities: 16.5 megawatts (MW), 37.5 MW, 56.1 MW and 31.8 MW (for the combined cycle unit).

A CAM plan was required for nitrogen oxides emissions from the combined cycle unit. The CAM plan (Appendix CAM) takes advantage of the steam to fuel ratio parameters that are already monitored for that unit.

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

The facility has been assigned Department of Energy, Office of Regulatory Information Systems (ORIS) Code 0658. The present status of allowances is given in Section IV, Acid Rain Part, of the permit.

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).



## 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

October 4, 2007

Electronically Sent – Received Receipt Requested.

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:

On June 25, 2007, you submitted an application for a Title V Air Operation Permit Renewal for the H. D. King Power Plant, which is located at 311 North Indian River Drive, Fort Pierce, St. Lucie County. Enclosed are the following documents: "Statement of Basis", "DRAFT Permit", "Written Notice of Intent to Issue Title V Air Operation Permit", and "Public Notice of Intent to Issue Title V Air Operation Permit".

The "Statement of Basis" summarizes the Permitting Authority's technical review of the application and provides the rationale for making the preliminary determination to issue a DRAFT Permit. The proposed "DRAFT Permit" includes specific conditions that regulate the emissions units at this facility. The "Written Notice of Intent to Issue Title V Air Operation Permit" provides important information regarding: the Permitting Authority's intent to issue a Title V air operation permit (DRAFT Permit); the requirements for publishing a Public Notice of the Permitting Authority's intent to issue the DRAFT Permit; the procedures for submitting comments on the DRAFT Permit; the requirements for requesting a public meeting; the requirements for filing a petition for an administrative hearing; and the availability of mediation. The "Public Notice of Intent to Issue Title V Air Operation Permit" is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

If you have any questions, please contact the Project Engineer, Tom Cascio, at 850-921-9526.

Sincerely,

Trina L. Vielhauer, Chief Bureau of Air Regulation

Trim & Vielhaus

TLV/aal/tbc

**Enclosures** 

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

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

Mr. Thomas W. Richards, P.E. Fort Pierce Utilities Authority P.O. Box 3191 Fort Pierce, Florida 34948

DRAFT Air Permit No. 1110003-008-AV
H. D. King Power Plant
Title V Permit Renewal
St. Lucie County, Florida

**Facility Location**: The applicant requests a Title V air operation permit (Permit) to operate the H. D. King Power Plant, which is located at 311 North Indian River Drive, Fort Pierce, St. Lucie County.

**Project**: On June 25, 2007, the applicant applied to the Permitting Authority for a Title V air operation permit renewal. The facility consists of the following emissions units: 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 heat input fossil fuel fired steam generator; one 56.1 MW 611 MMBtu per hour heat input fossil fuel fired steam generator; and one 23.4 MW combined cycle gas turbine with a 8.2 MW heat recovery steam generator (HRSG).

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

Permitting Authority: Applications for Title V air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213 and 62-214 Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to operate the facility. The Department of Environmental Protection, Bureau of Air Regulation, is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114 and facsimile 850/921-9533.

**Project File:** A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the DRAFT Permit, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the DRAFT Permit by visiting the following website: <a href="http://www.dep.state.fl.us/air/eproducts/apds/default.asp">http://www.dep.state.fl.us/air/eproducts/apds/default.asp</a> and entering the permit number shown above. A copy of the complete project file is also available at the Department's Southeast District Office, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401 (Telephone: 561/681-6600).

**Notice of Intent to Issue Air Permit**: The Permitting Authority gives notice of its intent to issue a permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a PROPOSED Permit and subsequent FINAL Permit in accordance with the conditions of the DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

**Public Notice**: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue Title V Air Operation Permit" (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within seven (7)

days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the DRAFT Permit for a period of thirty (30) days from the date of publication of this Public Notice. Written comments must be post-marked, and all e-mail or facsimile comments must be received by the close of business (5 pm), on or before the end of this 30-day period by the Permitting Authority at the above address, email or facsimile. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location on the official web site for notices at Florida Administrative Weekly (FAW) at <a href="http://faw.dos.state.fl.us/">http://faw.dos.state.fl.us/</a> and in a newspaper of general circulation in the area affected by the permitting action. Subsequent action on the Title V and Title IV parts of the Permit Renewal may be split if comments are received on the Title V portion of the DRAFT Permit. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the DRAFT Permit, the Permitting Authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this Written Notice of Intent to Issue Title V Air Operation Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the attached Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Title V Air Operation Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written

0

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

Notice of Intent to Issue Title V Air Operation Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within sixty (60) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the Permit that were raised with reasonable specificity during the thirty (30) day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at <a href="http://www.epa.gov/region4/air/permits/Florida.htm">http://www.epa.gov/region4/air/permits/Florida.htm</a>.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief Bureau of Air Regulation

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Title V Air Operation Permit Renewal (including the Public Notice, and the DRAFT permit) and all copies were sent electronically (with Received Receipt) before the close of business on to the persons listed:

Thomas W. Richards, Fort Pierce Utilities Authority: trichards@fpua.com

Ken Kosky, P.E., Golder Associates Inc.: kkosky@golder.com

Lee Hoefert, P.E., Southeast District Office: lee.hoefert@dep.state.fl.us

Gracy Danois, EPA Region 4: danois.gracy@epa.gov

Clerk Stamp

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

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

Department of Environmental Protection
DRAFT Title V Air Operation Permit No. 1110003-008-AV
H. D. King Power Plant
St. Lucie County

**Applicant**: The applicant for this project is Fort Pierce Utilities Authority, P.O. Box 3191, Fort Pierce, Florida 34948. The applicant's responsible official is Mr. Thomas W. Richards, P.E., Director of Electric and Gas Systems.

**Facility Location**: The applicant operates the H. D. King Power Plant, which is located at 311 North Indian River Drive, Fort Pierce, St. Lucie County, Florida.

**Project**: The applicant submitted an application for a Title V Air Operation Permit Renewal including an Acid Rain Part pursuant to Title IV of the Clean Air Act. This facility consists of three small fossil fuel steam generators and a single gas fired combined cycle unit. The four units have the following nominal capacities: 16.5 megawatts (MW), 37.5 MW, 56.1 MW and 31.8 MW for the combined cycle unit.

**Permitting Authority:** Applications for Title V air operation permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213, and 62-214 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to operate the facility. The Department of Environmental Protection, Bureau of Air Regulation, is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114 and facsimile 850/921-9533.

**Project File**: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the DRAFT Permit, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the DRAFT Permit by visiting the following website: <a href="http://www.dep.state.fl.us/air/eproducts/apds/default.asp">http://www.dep.state.fl.us/air/eproducts/apds/default.asp</a>. Enter the permit number given above. A copy of the complete project file is also available at the Department's Southeast District Office, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401 (Telephone: 561/681-6600).

**Notice of Intent to Issue A Permit**: The Permitting Authority gives notice of its intent to issue a permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a PROPOSED Permit and subsequent FINAL Permit in accordance with the conditions of the DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the DRAFT Permit for a period of thirty (30) days from the date of publication of this Public Notice. Written comments must be post-marked and all e-mail or facsimile comments must be received by the close of business (5 pm) on or before the end of this 30-day period by the Permitting Authority at the above address, email or facsimile. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location on the official web site for notices at Florida Administrative Weekly (FAW) at <a href="http://faw.dos.state.fl.us/">http://faw.dos.state.fl.us/</a> and in a newspaper of general circulation in the area affected by the permitting action. Subsequent action on the Title V and Title IV parts of the Permit Renewal may be split if comments are received on the Title V portion of the DRAFT Permit. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the DRAFT Permit, the Permitting Authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of intent. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Objections: In addition to the above right to petition, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within sixty (60) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the Permit that were raised with reasonable specificity during the thirty (30) day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at http://www.epa.gov/region4/air/permits/Florida.htm.

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

## Title V Air Operation Permit Renewal

DRAFT 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

## DRAFT Permit No. 1110003-008-AV

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Permittee:

Fort Pierce Utilities Authority P. O. Box 3191 Fort Pierce, Florida 34948 **DRAFT 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 VAir 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

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).

E.U. ID	
No.	Brief Description
-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 Permit No. 1110003-008-AV Facility ID No. 1110003

#### 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. <u>Unregulated Emissions Units and/or Activities.</u> Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]
- 6. <u>Insignificant Emissions Units and/or Activities.</u> Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

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

- 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

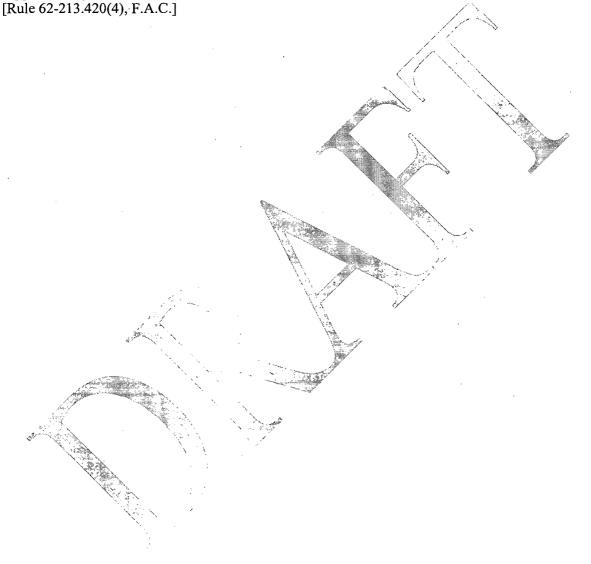
12. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division

Air, 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.



#### 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. <u>Permitted Capacity.</u> 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]

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{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  $\pm$  F

where:

 $STD = allowable NO_X$  emissions (percent by volume at 15 percent oxygen on a dry basis). Y = manufacturer's rated heat rate at manufacturer's rated load (kilöjoules 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.

 $F = NO_X$  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. <u>Visible Emissions</u>. 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

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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 ±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

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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:

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

where:

 $NO_x = Emissions$  of  $NO_x$  at 15 percent oxygen and ISO standard ambient conditions.

 $NO_X$  obs = Measured  $NO_X$  emission at 0.5 percent oxygen, ppmv.

Pref = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure.

Pobs = Measured combustor inlet absolute pressure at test ambient pressure.

e = Transcendental constant (2.718)

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

 $T_{amb}$  = Temperature of ambient air at test. [40 CFR 60.335(b)(1); and AC 56-141460.]

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- **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. <u>Visible Emissions</u>. 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. <u>Carbon Monoxide</u>. 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,

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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) <u>Minimum Sample Volume</u>. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) <u>Required Flow Rate Range</u>. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached to this permit.

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- (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 3 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

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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)]

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- **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.** <u>Malfunction Reporting.</u> 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.

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- 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. <u>Definitions.</u> 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. <u>Circumvention</u>: 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.

E.U. ID	
No.	Brief Description
-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 heatinput 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:

Unit No.	MMB <sub>1</sub>	tu/hr Hea	it Input	Fuel Type
6		218.9		Natural Gas
	A SECTION	218.9	- V.Z.	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.]

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

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

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

- **B.7.** Particulate Matter 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.**

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

**B.11.** <u>Volatile Organic Compounds.</u> 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.** <u>Visible emissions</u>. 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.

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[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.



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### 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:

Unit No.	, <u>M</u>	MBt	ı/hr Hea	it Input	Fuel Type
7	frank.		470.0		Natural Gas
	.7		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.]

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

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

[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. <u>Nitrogen Oxides</u>. Nitrogen Oxides emissions shall not exceed 104.35 pounds per hour when firing natural gas. See specific condition **E.3**.

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

C.11. <u>Volatile Organic Compounds</u>. 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. <u>Carbon Monoxide</u>. 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. <u>Visible emissions</u>. 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. <u>DEP Method 9</u>. 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. <u>Particulate Matter</u>. The test method for particulate matter shall be EPA Method 5, incorporated in Chapter 62-297, F.A.C.

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[AC 56-141460A]

[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**.

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.

E.U. ID		
No.	Brief Description	
-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:

Unit No.	<u>MMBt</u>	u/hr Hea	at)Input	Fuel Type
8	e men	644.0	11/2	Natural Gas
		644.0	100	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.]

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#### **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.** <u>Visible Emissions</u>. 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 62-240.700(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

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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.** <u>Volatile Organic Compounds.</u> 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) <u>Opacity</u>. 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) <u>Nitrogen oxides</u>. 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.** <u>Visible emissions</u>. 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

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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 56-14/1460A]
- 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:

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

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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.

 $F_d$  = 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  $160 \pm 14$  °C ( $320 \pm 25$  °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  $NO_X$  sample, the emission rate correction factor, grab sampling and analysis procedure of Method 3B shall be used to determine the  $O_2$  concentration (% $O_2$ ). The sample shall be taken simultaneously with, and at the same point as, the  $NO_X$  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,  $SO_2$  and  $NO_X$  may be determined by using the Fc factor, provided that the following procedure is used:
  - (i) The emission rate (E) shall be computed using the following equation:

$$E = C F_c (100 / \% CO_2)$$

where:

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

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

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

 $F_c$  = factor as determined in appropriate sections of Method 19.

- (ii) If and only if the average  $F_c$  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  $O_2$  and  $CO_2$  concentration according to the procedures in 40 CFR 60.46(b)(2)(ii), (4)(ii), or (5)(ii). Then if  $F_O$  (average of three runs), as calculated from the equation in Method 3B, is more than  $\pm$  3 percent than the average  $F_O$  value, as determined from the average values of  $F_d$  and  $F_c$  in Method 19, i.e.,  $F_{Oa}$  =0.209 ( $F_{da}$  /  $F_{Ca}$ ), then the following procedure shall be followed:
  - (A) When  $F_0$  is less than 0.97  $F_{0a}$ , then E shall be increased by that proportion under 0.97  $F_{0a}$ , e.g., if  $F_0$  is 0.95  $F_{0a}$ , E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.
  - (B) When  $F_0$  is less than 0.97  $F_{0a}$  and when the average difference ( $\overline{d}$ ) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under 0.97  $F_{0a}$ , e.g., if  $F_0$  is 0.95  $F_{0a}$ , E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.
  - (C) When  $F_0$  is greater than 1.03  $F_{0a}$  and when d is positive, then E shall be decreased by that proportion over 1.03  $F_{0a}$ , e.g., if  $F_0$  is 1.05  $F_{0a}$ , 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 O2 concentration (%O2) 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)]

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- **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]

		A. (2000) 1970.	
Fossil fuel	Span value for sulfur dioxide	Span value for nitrogen oxides	
	Sultui dioxide	muogen oxides	Zana Z
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/I, 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:

 $E = CF[20.9/(20.9-percent O_2)]$ 

where:

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

[40 CFR 60.45(e)(1)]

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**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,  $F_c$  = 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 ( $F_c$ ), respectively. Values of F and  $F_c$  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  $F_0 = 0.384 \times 10^{-7}$  scm CO<sub>2</sub> /I (1.430 scf CO<sub>2</sub> /million Btu)
  - (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  $F_c$  factor (scm  $CO_2$  /J, or scf  $CO_2$  /million Btu) on either basis in lieu of the F or  $F_c$  factors specified in 40 CFR 60.45(f)(4):

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

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

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

$$F_{c} = \frac{321 \times 10^{3} \text{ (%C)}}{\text{GCV}}$$
(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  $F_c$  factors determined by paragraphs 40 CFR 60.45(f)(4) or (f)(5) shall be prorated in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^{n} X_{i}F_{i}$$
 or  $F_{c} = \sum_{i=1}^{n} X_{i}(F_{c})_{i}$ 

where:

 $X_i$  = the fraction of total heat input derived from each type of fuel (e.g. natural gas, bituminous coal, wood residue, etc.)

 $F_i$  or  $(F_c)_i$  = the applicable F or  $F_c$  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.** <u>Definitions.</u> 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.** <u>Circumvention.</u> 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.

E.U. ID		
No.	Brief Description	
-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 4004, -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 datêd 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:

MAY 7 " " " " " " " " " " " " " " " " " "					
PARAMETER	TONS PER YEAR				
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.]

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**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.

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[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) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, 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.

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- 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) <u>Special Compliance Tests</u>. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

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

- **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.

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[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.

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- 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]

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### 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	M = M
-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:

			Carlot m.	, ,	KAMMA.		
E.U. ID			* ,			*	
No.	EPA ID	Year	2008	2009	2010	2011	2012
		SO2	F4.		, in the second		
227	TD 17 05	allowances,	50.1		F	~ <del>~</del> .11.	
-007	ID No. 07	under Table 2	63* 🛴	63*	65*	65*	65*
		of 40 CFR		· ·			
		Part 73	*	7			
		SO2 allowances,					
-008	ID No. 08	under Table 2	26*	26*	34*	34*	34*
		of 40 CFR	market and market of the second				
i .	리기 가족하	Part 73			1		

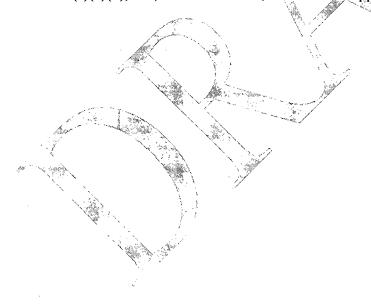
<sup>\*</sup>The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.

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- **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. <u>Fast-Track Revisions of Acid Rain Parts.</u> 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 H-1: Permit History**

Fort Pierce Utilities Authority H. D. King Power Plant

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

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
A11	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

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

Fort Pierce Utilities Authority H. D. King Power Plant

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

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

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

E.U. ID	
No.	Brief Description of Emissions Units and/or Activity
-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

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

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 Percloroethylene.
- 6. Lube Oil Storage Area.
- 7. Parts Washer (aliphatic hydrocarbon solvent).
- 8. Miscellaneous Painting Activities.
- 9. Miscellaneous Welding Activities.
- 10. Oil/Water Separator.

# H. D. King Power Plant

# **APPENDIX CAM**

# **Compliance Assurance Monitoring Requirements**

# **Compliance Assurance Monitoring Requirements**

Pursuant to Rule 62-213.440(1)(b)1.a., F.A.C., the CAM plans that are included in this appendix contain the monitoring requirements necessary to satisfy 40 CFR 64. Conditions 1. – 17. are generic conditions applicable to all emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the attached tables, as submitted by the applicant and approved by the Department.

#### 40 CFR 64.6 Approval of Monitoring.

- The attached CAM plan(s), as submitted by the applicant, is/are approved for the purposes of satisfying the requirements of 40 CFR 64.3.
   [40 CFR 64.6(a)]
- 2. The attached CAM plan(s) include the following information:
  - (i) The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);
  - (ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and
- (iii) The performance requirements established to satisfy 40 CFR 64.3(b) or (d), as applicable. [40 CFR 64.6(c)(1)]
- 3. The attached CAM plan(s) describe the means by which the owner or operator will define an exceedance of the permitted limits or an excursion from the stated indicator ranges and averaging periods for purposes of responding to (see CAM Conditions 5. 9.) and reporting exceedances or excursions (see CAM Conditions 10. 14.).
  [40 CFR 64.6(c)(2)]
- 4. The permittee is required to conduct the monitoring specified in the attached CAM plan(s) and shall fulfill the obligations specified in the conditions below (see CAM Conditions 5. 17.).

[40 CFR 64.6(c)(3)]

#### 40 CFR 64.7 Operation of Approved Monitoring.

- 5. Commencement of operation. The owner or operator shall conduct the monitoring required under this appendix upon the effective date of this Title V permit.

  [40 CFR 64.7(a)]
- 6. <u>Proper maintenance.</u> At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[40 CFR 64.7(b)]

7. Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times

that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 64.7(c)]

### 8. Response to excursions or exceedances.

- a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions, if allowed by this permit). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR 64.7(d)(1) & (2)]

9. Documentation of need for improved monitoring. If the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.7(e)]

### 40 CFR 64.8 Quality Improvement Plan (QIP) Requirements.

10. Based on the results of a determination made under CAM Condition 8.a., above, the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with CAM Condition 4., an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, may require the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a

pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

[40 CFR 64.8(a)]

### 11. Elements of a QIP:

- a. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
- b. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
  - (i) Improved preventive maintenance practices.
  - (ii) Process operation changes.
  - (iii) Appropriate improvements to control methods.
  - (iv) Other steps appropriate to correct control performance.
  - (v) More frequent or improved monitoring (only in conjunction with one or more steps under CAM Condition 11.b(i) through (iv), above).

[40 CFR 64.8(b)]

12. If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

[40 CFR 64.8(c)]

- 13. Following implementation of a QIP, upon any subsequent determination pursuant to CAM Condition 8.b., the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
  - a. Failed to address the cause of the control device performance problems; or
  - b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

[40 CFR 64.8(d)]

14. Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40 CFR 64.8(e)]

### 40 CFR 64.9 Reporting And Recordkeeping Requirements.

### 15. General reporting requirements.

- a. On and after the date specified in **CAM Condition 5.** by which the owner or operator must use monitoring that meets the requirements of this appendix, the owner or operator shall submit monitoring reports semi-annually to the permitting authority in accordance with Rule 62-213.440(1)(b)3.a., F.A.C.
- b. A report for monitoring under this part shall include, at a minimum, the information required under Rule 62-213.440(1)(b)3.a., F.A.C., and the following information, as applicable:

- (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (iii) A description of the actions taken to implement a QIP during the reporting period as specified in CAM Conditions 10. through 14. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR 64.9(a)]

### 16. General recordkeeping requirements.

- a. The owner or operator shall comply with the recordkeeping requirements specified in Rule 62-213.440(1)(b)2., F.A.C. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to **CAM Conditions 10.** through **14.** and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
- b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9(b)]

#### 40 CFR 64.10 Savings Provisions.

### 17. It should be noted that nothing in this appendix shall:

- a. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this appendix shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under Title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.
- b. Restrict or abrogate the authority of the Administrator or the permitting authority to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.
- c. Restrict or abrogate the authority of the Administrator or permitting authority to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.

[40 CFR 64.10]

# MONITORING APPROACH

	Compliance Indicator
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 Speedtrome 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	<ul><li>(1) Annual compliance testing</li><li>(2) Confirming the actual versus required steam-to-fuel ratios.</li></ul>
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.

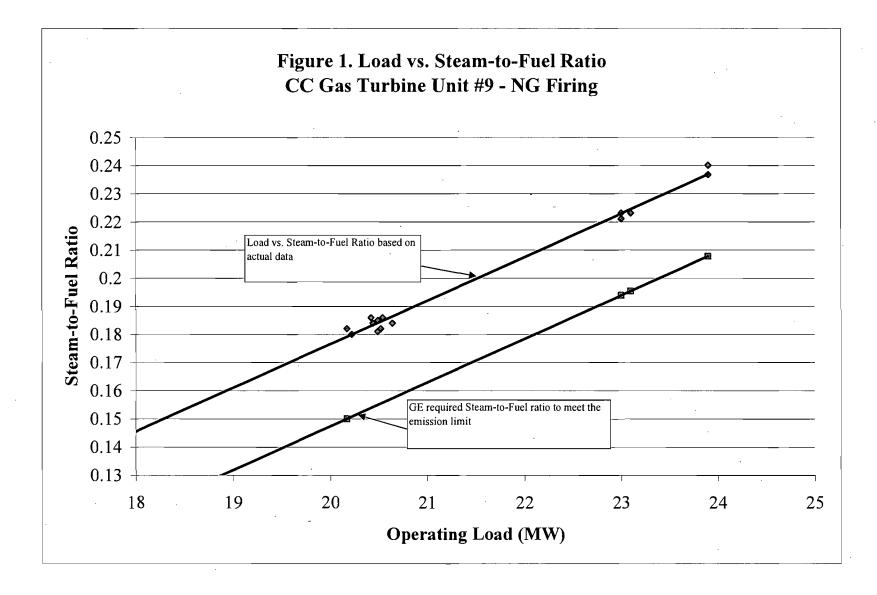
September 2007

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

Date	Time	Run No.	Operati	ng Load	Steam Injection	Fuel Flow	Steam-to Fuel Ratio
			(%)	(MW)	(lb/sec)	(lb/sec)	
8/14/2007	17:00			20.17			0.182
	16:00			20.52			0.182
	15:00			20.49	w		0.181
8/13/2007	16:41			20.64			0.184
	15:41	-+		20.54	<b>44</b>		0.186
	14:41	,		20.44			0.184
8/12/2007	17:34			20.42	**		0.186
	16:34	, <del></del> .		20.22			0.18
	15:34			20.49	<b></b>		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.

Golder Associates



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

			Allowable Emissions						
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs/hour	TPY	Regulatory Citation(s)	See permit condition(s)
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.
SO₂	All	8,760	0.015% vol. @ 15% Oxygen			319.51	1,395 62	40 CFR 60.332(a)(1) & AC 56-141460	A.6.
SO₂ ·	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.
со	All	8,760	·	32.85	110.4			AC 56-141460	A.9.

<sup>\*</sup> The "Equivalent Emissions" listed are for informational purposes only.

Ft. Pierce Utilities Authority H. D. King Power Plant FINAL Title V Permit Renewal No.: 1110003-005-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

			Allowable Emissions			Equivalent Emi	*ยกมเลย	·	
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs/hour	TPY	Regulatory Citation(s)	See permit condition(s)
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	ΑII	8,760	60% 3 hrs/24 hrs					62-210.700(3), FAC	B.6.
РМ	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.
РM	Oil		0.3 lb/MMBtu 3hrs/24 hrs		16.0 <b>"</b>			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.
NOx	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 <b>**</b>			OGC Case#91-1610	B.12. & E.3.
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Notes:

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<sup>\*</sup> The "Equivalent Emissions" listed are for informational purposes only.

<sup>&</sup>quot;The total combined emissions from EU [-004], [-007], and [-008]

Ft. Pierce Utilities Authority H. D. King Power Plant FINAL Title V Permit Renewal No.: 1110003-005-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

			Allowable Emissions		-	Equivalent Emissions*		
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs:/hour TP	Regulatory Citation(s)	See permit condition(s)
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 <b>**</b>		OGC Case#91-1610	C.7. & E.3.
PM	Oil		0.1 lb/MMBtu		16.0 <b>"</b>		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.
SO₂	Gas	8,760		2.5	101.6		OGC Case#91-1610	C.9. & E.3.
SO₂	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 <b>`</b> `		OGC Case#91-1610	C.12. & E.3.
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Notes:

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<sup>\*</sup> The "Equivalent Emissions" listed are for informational purposes only.

<sup>\*</sup>The total combined emissions from EU [-004], [-007], and [-008]

Ft. Pierce Utilities Authority H. D. King Power Plant FINAL Title V Permit Renewal No.: 1110003-005-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. Bri

**Brief Description** 

[-008]

56.1 MW Boiler - Unit #8

			Allowable Emissions			Equivalent Emis			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
VE	Gas	8,760	Not Exceed 5%					OGC Case#91-1610	D.5.
VE	Oit	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 <b>"</b>			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 SO <sub>2</sub> SO <sub>2</sub>	Oil Gas Oil	8,760	0.3 lb/MMBtu 3hrs/24 hrs 0.80 lb/MMBtu	2.5	16.0 <sup></sup> 101.6 <sup></sup> 101.6 <sup></sup>			62-210.700(3), FAC OGC Case#91-1610 OGC Case#91-1610	D.8. & E.3. D.9. & E.3. D.9. & E.3.
NO <sub>X</sub>	Gas		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	•	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.
СО	Gas	8,760		12.59	45.3			OGC Case#91-1610	D.12. & E.3.
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Notes

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<sup>\*</sup> The "Equivalent Emissions" listed are for informational purposes only.

The total combined emissions from EU [-004], [-007], and [-008]

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

	_		Testing	Frequency	Min. Compliance		•
Pollutant Name		Compliance	Time	Base	Test		i
or Parameter	Fuel(s)	Method	Frequency	Date *	Duration	CMS**	See permit condition(s)
VE	Gas	EPA Method 9	Annual	9/30/1991	30 min		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.
SO₂	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	Yes	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.
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<sup>\*</sup> The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

<sup>\*\*</sup>CMS [=] continuous monitoring system

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

			Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		
or Parameter	Fuel(s)	Method	Frequency	Date *	Duration	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.
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<sup>\*</sup> The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

<sup>\*\*</sup>CMS [=] continuous monitoring system

Ft. Pierce Utilities Authority

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

H. D. King Power Plant

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. Brie

**Brief Description** 

[-004]

16.5 MW Boiler - Unit #6

	_		Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		
or Parameter	Fuel(s)	Method	Frequency	Date*	Duration	CMS**	See permit condition(s)
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.
. SO₂	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.
со	Gas	EPA Method 10	Renewal	6/24/1983	60 min	ļ	B.24. & B.30.
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<sup>\*</sup> The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

<sup>\*\*</sup>CMS [=] continuous monitoring system

Ft. Pierce Utilities Authority

Title V Permit Renewal No. 1110003-008-AV

H. D. King Power Plant

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

			Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance ·	Time	Base	Test		
or Parameter	Fuel(s)	Method	Frequency	Date *	Duration	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.
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<sup>\*</sup> The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

<sup>\*\*</sup>CMS [=] continuous monitoring system

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

-		<u> </u>	Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		
or Parameter	Fuel(s)	Method	Frequency	Date*	Duration	CMS**	See permit condition(s)
VE	Gas	EPA Method 9	Annual	9/30/1991	30 min		D.18 & D.34.
VE	Oil	DEP Method 9	Annual	9/30/1991	60 min		D.18 & D.19.
PM	Ail	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	Yes	D.23. & D.33.
voc	Gas	EPA Method 25A	Renewal	9/30/1991	60 min		D.24. & D.33.
со	Gas	EPA Method 10	Renewal	9/30/1991	60 min		D.25. & D.33.
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<sup>\*</sup> The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

<sup>\*\*</sup>CMS [=] continuous monitoring system