

December 13, 1996

7201 Lake Ellenor Drive Orlando, Florida 32809-5769



Mr. John Brown Bureau of Air Resources Department of Environmental Protection 2600 Blair Stone Road Tallahassee, Florida 32399-5505

Dear Mr. Brown:

### Re: Title V Application Inquiry Contact

The Florida Municipal Power Agency (FMPA) is a joint action agency comprised of 26 municipal utilities in the State of Florida. Five FMPA member utilities recently used the services of R.W. Beck to submit Title V air permit applications under the Department of Environmental Protection's (Department's) air permit program. These five utilities are City Electric System of Key West, Fort Pierce Utilities Authority and the cities of St. Cloud, Homestead and Starke. Among these five members, applications were submitted for the following seven generating facilities:

- City Electric System Big Pine Power Plant I.D. No. 0870020
- City Electric System Cudjoe Power Plant I.D. No. 0870013
- City Electric System Stock Island Power Plant I.D. No. 0870003
- Fort Pierce Utilities Authority-Fort Pierce Power Plant I.D. No. 1110003
- City of Homestead G.W. Ivey Power Plant I.D. No. 0250013
- City of St. Cloud St. Cloud Power Plant I.D. No. 0970002
- City of Starke Starke Power Plant I.D. No. 0070002

Currently, the Department contacts R.W. Beck with questions and requests for clarification of Title V application information related to the above facilities. However, with submission of this letter FMPA is requesting that the Department contact me with any additional questions or information requests regarding FMPA members' Title V permit applications. We will continue to use the services of R.W. Beck for technical assistance as necessary, however FMPA would like to be the initial contact for all of the Department's information requests.

Mr. John Brown Bureau of Air Resources Department of Environmental Protection December 13, 1996

Page -2-

FMPA thanks the Department for its attention to this matter. Please contact me at 407/859-7310, if you have any questions regarding this request.

Sincerely,

Bob Delp

Environmental Coordinator

BD/ar

cc:

James Swartz - Homestead
Thomas Richards - Fort Pierce
J. Paul Wetzel - St. Cloud
William Weldon - Starke
Larry Thompson - Key West
Ivan Clark - R.W. Beck
Bob Williams - FMPA
Claude L'Engle - FMPA

LTUS FO RO

Cy Engineer

Will also cy mv Delp

FLORIDA MUNICIPAL POWER ACENCY

Date: From: 7/22/97 6:23:15 PM Marjane Monahan TAL

Subject:

Ft. Pierce Draft Title V Permit

To:

Scott Sheplak TAL Jeffrey E. Brown TAL

CC:

Ed Svec TAL

Re: Fort Pierce Draft Title V Permit No. 1110003-003-AV H.D. King Power Plant

On July 3, 1997, OGC received a request for extension of time to file a petition for administrative hearing concerning the above referenced matter. Ft. Pierce Utilities Authority is requesting an extension until July 30, 1997.

I am not sure who the processor is, but Ed (Svek) was mentioned in the letter. Would one of you (either Scott or Ed), please send a copy of the notice that was published and also a copy of the green certified mail receipt? The letter states that the notice was published June 20, 1997.

Please let Jeff and me know if someone else is the processor, otherwise, please let us know if you have any objections to granting an extension of time.

The Draft permit and Notice package were received \$108/97 (green cond). Scott and I recommend denial of the request for extension of time to fike for hearing.

Please cantact me if you require any further information



#### H. D. KING POWER PLANT

311 North Indian River Drive Fort Pierce, Florida 34950 (407) 464-5792

July 21, 1997

Florida Department of Environmental Protection Bureau of Air Regulation 2600 Blair Stone Road Mail Station #5505 Tallahassee, Florida 32399-2400

Subject:

H. D. King Power Plant

Title V Draft Permit No. 1110003-003-AV Signature pages

The certification statements of our Authorized Representative and the Professional Engineer are attached.

Sincerely,

Harry Lamb, Superintendent

**Power Resources** 

HL/js

Enclosure

RECEIVED

JUL 24 1997

BUREAU OF AIR REGULATION

RECEIVED

JUL 24 - 1997

BUREAU OF AIR REGULATION

### PROFESSIONAL ENGINEER STATEMENT:

### I, the undersigned, hereby certified, that:

- (1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in the subject draft Title V permit and the enclosed comments, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
- (2) To the best of my knowledge, any emission estimates reported or relied on in the application for the subject Title V permit are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in the application, based solely upon the materials, information and calculations submitted with the application.

Signature

Ivan L. Clark

Florida P.E. #0049777

### OWNER/AUTHORIZED REPRESENTATIVE OR RESPONSIBLE OFFICIAL STATEMENT:

I, the undersigned, am the owner or authorized representative of the Title V source addressed in these comments to the draft Title V Permit. I hereby certify, based on information and belief formed after reasonable injury, that the statements made in these comments are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in these comments are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this draft permit and associated comments will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.

Date

Signature

Thomas W. Richards Director of Operations



#### H. D. KING POWER PLANT

311 North Indian River Drive Fort Pierce, Florida 34950 (407) 464-5792

RECEIVED

JUL 18 1997

BUREAU OF AIR REGULATION

Florida Department of Environmental Protection Bureau of Air Regulation 2600 Blair Stone Road Mail Station #5505 Tallahassee, Florida 32399-2400

Subject:

July 17, 1997

H. D. King Power Plant

Title V Draft Permit No. 1110003-003-AV Comments

The following comments are submitted with respect to the Title V Draft Permit for the H. D. King Power Plant. In accordance with the timely requirement for comments, we will submit this document. The certification statements of our Authorized Representative and the Professional Engineer are not attached. These certification statements will be sent to your office in a future correspondence.

Sincerely,

Harry Lamb, Superintendent

Power Resources

HL/js

Enclosure



#### H. D. KING POWER PLANT

311 North Indian River Drive Fort Pierce, Florida 34950 (407) 464-5792

July 17, 1997

Florida Department of Environmental Protection Bureau of Air Regulation 2600 Blair Stone Road Mail Station #5505 Tallahassee, Florida 32399-2400

Subject:

H.D. King Power Plant

Title V Draft Permit No. 1110003-003-AV

The following comments are submitted with respect to the Title V Draft Permit for the H. D. King Power Plant.

- 1. Only one condition is noted as being not federally enforceable: General Pollutant Emission Limiting Standards, Objectionable Odor Prohibited. It is our understanding that tons per year limitations are also not federally enforceable as they do not meet the criteria of "practical enforceability" because continual compliance can not be demonstrated. We are requesting that it be indicated in the permit that the tons per year limitations are also not federally enforceable.
- 2. Additionally, based on information contained in a letter dated June 20, 1997, from the Florida Coordinating Group to the Florida DEP, the reference to F.A.C. 62-4.160 in specific conditions A.1., B.1., C.1., and D.1. of the draft permit is not considered federally enforceable because it is not contained in Florida's SIP. We are requesting that it be noted as not federally enforceable in the permit.
- 3. The facility-wide condition 7. specifically restricts the permittee from using small quantities of products that result in very small VOC emissions. It is requested that a deminimus/quantities be included in this condition to allow for such usage.
- 4. Specific condition A.1. specifies a maximum process/operation rate of 415 MMBtu per hour which was used in the application to calculate the annual potential to emit for the unit. This limitation was not specified in the previous operating or construction permit and would therefore be considered a new limitation. It has been our understanding that new limitations would not be imposed through the Title V permitting process. We are requesting that this new limitation be removed from the permit.

Should it not be possible for this limitation to be removed, we are requesting that the limitation be placed on an annual basis (415 MMBtu per hour \* 8760 hours =  $3.64 \times 10^6$  MMBtu per year) since the number was used in this way to calculate an annual potential to emit.

Since Unit #9 normally operates as a combined cycle unit in which the combustion turbine unit operates well below its maximum potential heat input of 415 MMBtu, Fort Pierce Utility Authority plans to conduct its annual compliance testing to establish its normal combined cycle maximum heat input value, in accordance with Specific Condition No. 25 on page 11 of this draft permit.

- 5. Specific condition A.2 references condition A.24. The reference should be to A.25 instead.
- 6. Specific condition A.5. In the next to the last line of this condition it is requested that the statement "or 84 ppm at 15 percent oxygen on a dry basis." be replaced by the following: "Based on the above calculation the allowable emission will be 84 ppm, ISO corrected."
- 7. Specific condition A.16 is redundant assuming conditions A.5 and A.17 are included in the permit. Therefore, we request deletion of A.16.
- 8. Specific condition A.17 specifies the adjustment to ISO ambient atmospheric conditions as per the equation in 40 CFR 60.335(c)(1). The regulations contained under 40 CFR 60.335 also allow for the option of using manufacturer correction factors to adjust the nitrogen oxides to ISO standard conditions. This option is specified in 40 CFR 60.335(f)(1). It is requested that this regulatory citation be included in the permit.
- Specific condition A.17 contains an equation to correct NO<sub>x</sub> emissions to ISO conditions. Based on the information contained in 40 CFR 60 Subpart GG, the equation is incorrectly written as indicated below:

reads: 
$$NO_x = [NO_{x\ obs}][(P_{ref})^{0.5}/P_{obs}]\ e^{19}[H_{obs}-0.00633][288^{\circ}K/T_{amb}]1.53$$
 should read: 
$$NO_x = [NO_{x\ obs}][P_{ref}/P_{obs}]^{0.5}e^{19(Hobs-0.00633)}[288^{\circ}K/T_{amb}]^{1.53}$$

- 10. Specific condition A.18 indicates that emission testing for demonstrating compliance with NO<sub>x</sub> permit limits shall be conducted at 30, 50, 75 and 100 percent of peak load. This testing requirement, which is based on Subpart GG under 40 CFR 60.332, is only to determine compliance with NO<sub>x</sub> standards under New Source Performance Standards at the time of initial testing, not on an annual testing basis. For this reason we request deletion of this testing condition and inclusion of language requiring annual testing at 100 percent of peak load, which is consistent with the provisions of the existing permit.
- 11. Specific condition A.19 indicates span value shall be 300 ppm. This is incorrect and should be 100 ppm.
- 12. Specific condition A.24 specifies a test method for carbon monoxide (CO). All past annual compliance tests for the units at this plant have consistently demonstrated CO emissions at or near zero. For this reason testing requirements for CO are requested to be deleted from this permit for all units. If this is not deleted, this condition should specify Method 10 instead of Method 20 for carbon monoxide testing.

- 13. With respect to air emission test methods for all units, we are requesting that a sentence be added for all units which states that test methods other than those specified in the permit may be used upon prior approval by the Department.
- 14. Specific condition A.30.4.b. and 4.c. specifically limits emissions of lead and NESHAP pollutants. In the application it was documented that such emissions, if they occurred, were essentially zero. For that reason it is requested that these conditions be deleted from the permit.
- 15. The sentence contained in specific condition A.30.8. is incomplete. It should read that "Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emission compliance test once per each five-year period, coinciding with the term of its air operation permit".
- 16. Specific condition A.30.10.b. In the next to the last full line of this condition, the word "regulated" should be inserted before the word pollutant.
- 17. Specific condition A.36.7. should be modified to incorporate the alternate procedures for location of stack test ports in accordance with Method 1 in 40 CFR Part 60.
- 18. Specific condition B.19. It is requested that a new sentence be added to this condition as follows: "The testing requirements for particulates shall be waived when burning natural gas fuel for all units."
- 19. The last sentence of specific conditions B.30(a)2., C.30(a)2., and D.33(a)2. should read "does not burn liquid *fuel* for more than 400 hours".
- 20. Under the general description portion Section III, Subsection D, it is stated that the emissions are discharged through a multicyclone collector. Emission unit number 8 does not have a cyclone collector. We are requesting that this portion of the description be deleted.
- 21. Specific condition D.4 contains a 7,422 hour per year limitation on the operation of E.U. ID No. 008. The previous permit contained only a limitation on the total combined annual heat input of units 6, 7 and 8 and did not contain an operating hour limitation for unit 8. Due to the size of unit 8, the heat input limitation would amount to 7,422 hours per year if operated alone and at full load. However, the unit could operate more than 7,422 hours and still remain below emission and heat input limitations if it were to be operated at part load. The fundamental limitation here is the combined heat input, not a limitation on hours of operation. Therefore, the hour limitation is redundant and not required to demonstrate compliance with the applicable limitations of emission rates and heat input. Compliance with the combined heat input of units 6, 7 and 8 can be demonstrated though fuel usage records, therefore an hour limitation is not necessary. We are requesting that the hour limitation on unit 8 be removed.
- 22. Specific condition D.20. Add the following sentence to this condition: "In accordance with specific condition D.33. testing for particulates shall be waived for units that burn fuel oil < 400 hours per year."
- 23. Specific condition D.36 specifies a CEM for NO<sub>x</sub> and O<sub>2</sub> to meet 40 CFR Subpart D requirements. Subpart D allows for either O<sub>2</sub> or CO<sub>2</sub> diluent monitors and the facility currently has a CO<sub>2</sub> monitor. The facility has installed a monitor which meets the requirements of 40 CFR 75 and has

- petitioned and received permission to discontinue the use of the part 60 monitor. A copy of the approval from the DEP is attached. We are requesting that a statement or clarification of these monitoring issues be included in the permit.
- 24. The first equation for F contained in specific condition D.39 should state 227.2 (pct H) instead of 227.2 (pct II).
- 25. There are two different equations for F<sub>c</sub> in SI units contained in specific condition D.39 as indicated below. Based on the equations contained in 40 CFR 60 Appendix A Method 19, it appears that the first equation is correct. Please clarify the inclusion of the second equation.

$$F_c = 2.0 \times 10^{-5} \text{ (pct C)/GCV}$$

$$F_c = 20.0 \, (\%C)/GCV$$

- 26. The combined heat input stated in specific condition E.1 for emission units -004, -007, and -008 should be 4,534,930 instead of 4,534,903. The combined heat input number of 4,534,930 was contained in the previous permit to operate.
- 27. The general purpose internal combustion engines listed in Appendix U-1 should be classified as exempt instead of unregulated per F.A.C. 62-210.300(3)(a)21. As per the regulations, the total fuel usage of all the units is less than 32,000 gallons per year of diesel fuel, 4,000 gallons per year of gasoline, 4.4 million standard cubic feet per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.
- 28. Table 1.1 E.U. ID No. -007 the limitation for VOC should read 0.266 pounds per hour instead of 0.226 as per the previous operating permit.
- 29. Table 1-1, E.U. ID No. -007 and E.U. ID No. -008 standard for PM of 0.1 lb/MMBtu should not specify 3 hours in a 24 hour period. The previous operating permit contained the 0.1 lb/MMBtu limitation but did not specify 3 hours in a 24 hour period. The 3 hours in a 24 hour period is applicable only to the limitation which states that the particulate emissions shall not exceed an average of 0.3 pounds per million Btu during this time period for soot blowing as per F.A.C. 62-210.700(3).
- 30. Table 2.1 E.U. ID No. -003 specified fuel analysis as a SO<sub>2</sub> compliance method for oil firing. Fuel analysis is also the compliance method currently used for gas firing. We are requesting that the table be revised to indicate that fuel analysis is an available compliance method for gas firing in addition to the indicated stack testing according to Method 20.
- 31. Table 2.1 E.U. ID NO. -009 CO test method should be 10 instead of 20.
- 32. Table 2.1 E.U. ID No. -004, -007 and -008 currently states that particulate matter testing is required at permit renewal time. ASP No. 97-B-01 Order on Request for Alternate Procedures and Requirements states that: 1) Annual particulate compliance tests are not required for a fuel burning unit that does not burn liquid or solid fuel for more than 400 hours, and 2) In renewing an air operation permit the Department shall not require submission of particulate matter emission test results for any fossil fuel steam generator that burned liquid or solid fuel for no more than 400 hours during the year prior to renewal. Although it states under specific conditions B.32, C.32, and D.35 that particulate emissions tests will not be required if the units do not burn liquid fuel for

more than 400 hours per year, Table 2.1 specifies a particulate emission test requirement at renewal time. We are requesting that this be clarified to state that the test is not required at renewal time if the unit does not burn liquid fuel for more than 400 hours in the year prior to renewal.

Any questions or comments with respect to the above issues can be directed to Jim Stevens, phone number (561) 466-1600 ext. 5220 and fax number (561) 465-7596.

Sincerely,

Thomas W. Richards
Director of Operations
Fort Pierce Utilities Authority

Attachments (2)



### Department of Environmental Protection

Lawton Chiles Governor Southeast District P.O. Box 15425 West Palm Beach, Florida 33416

Virginia B. Wetherell Secretary

SEP 2 0 1995

Mr. Jim Stevens H. D. King Power Plant 311 North Indian River Drive Fort Pierce, Florida 34950

Re:

NSPS CEM Certification vs. Acid Rain Certification

Dear Mr. Stevens:

In response to your letter dated April 7, 1995 regarding the replacement of the 40 CFR Part 60, Subparts D, Da, and Db (New Source Performance Standards (NSPS)) continuous emissions monitoring systems (CEMS) with the 40 CFR Part 75 (Acid Rain) CEMs, please review the attached memorandum from the EPA.

Please specifically note the statement, "Stationary Source Compliance Division (SSCD) has determined that since the CEMS requirements of 40 CFR Part 75 are equivalent to or more stringent than the requirements of 40 CFR Part 60, EPA can accept Acid Rain CEMS as NSPS CEMS provided that the utility demonstrates compliance with all applicable NSPS regulations."

It is the Departments' understanding that the 40 CFR Part 75 (Acid Rain) CEMS certification has been approved by the EPA. Therefore, since the Part 75 requirements are equal to or more stringent than the Part 60 requirements, the Part 75 CEMS may replace the Part 60 CEMS. Please be advised that even though the Part 60 CEMS may be replaced, the utility must continue to demonstrate compliance with all applicable NSPS regulations in addition to complying with all applicable 40 CFR Part 75 (Acid Rain) requirements.

If there are any questions please contact Terri Hilliard at telephone number (407) 433-2650, extension 130.

Sincerely,

Thomas Tittle

Compliance/Enforcement Supervisor

TT:th

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Printed on recycled paper.



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Washington, D.C. 20460

Mr. Thomas W. Richards Designated Representative Fort Pierce Utilities Auth P.O. Box 3191 Fort Pierce, FL 34948-3191

Re: Henry D King, Units 7, 8

Dear Mr. Richards:

DEC - I 1995

RECEIVED

DEC 18 1995

EPUA

DIRECTOR OF

SYS OPS

OFFICE OF AIR AND RADIATION

The United States Environmental Protection Agency (EPA) has determined that your Acid Rain Continuous Emissions Monitoring Systems Certification Application is complete and that the monitoring systems indicated in Enclosure I meet the performance requirements of 40 CFR Part 75.

The certified monitoring systems are identified with their approved components on the official certificate contained in Enclosure 1. No other components may be substituted or added for emissions measurement under the Acid Rain Program without Agency approval under the certification or recertification requirements of Part 75. EPA has also recorded the Maximum Potential Concentration/Rate and span values for each unit or stack and has determined the relative accuracy frequency and the bias adjustment factor (BAF) for each system. This information is listed in Enclosure 2. You must apply the BAF to the relevant emissions data reported to the Agency from the date and time of the conclusion of the relative accuracy test until the test is repeated as part of the regular quality assurance requirements for the monitoring system under the Acid Rain Program. If you believe that Enclosures 1 or 2 contain any erroneous information, please contact your EPA Regional representative.

Enclosure 3 contains tips on submitting your electronic quarterly report. EPA requests that you make any necessary corrections before submitting your next quarterly report.

Enclosure 4 contains comments on your certification application from the Florida Department of Environmental Protection.

In conclusion, I would like to thank you for your considerable effort in meeting your monitoring obligations under the Acid Rain Program. We believe that by working together, we can achieve the significant reductions of SO2 and NOx emissions mandated under the Clean Air Act.

Sincerely,

Brian J. McLean, Director

Acid Rain Division

Enclosures

cc: David McNeal, EPA Region 4

Louis Nichols, Florida Dept of Environmental Regulation

Kim Nguyen, EPA Acid Rain Division

3 2 6 2 1 7 2 3

DEC 1 1995

WWW PLAN



#### H. D. KING POWER PLANT

311 North Indian River Drive Fort Pierce, Florida 34950 (407) 464-5792

RECEIVED

FEB 21 1997

**BUREAU OF** AIR REGULATION

February 18, 1997

Mr. John C. Brown, Jr., P.E. Administrator, Title V Section Florida Department of Environmental Protection Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

RE:

Additional Information for the Fort Pierce Utilities Authority Title V

Permit Application

Dear Mr. Brown:

Enclosed please find the additional information requested for Fort Pierce Utilities Authority's Title V permit application. With regard to Item 1 of your letter dated January 27, the information enclosed includes four (4) copies of the following documents:

- 1. Precautions to Prevent Emissions of Unconfined Particulate Matter.
- 2. List of Proposed Exempt Activities.
- 3. List of Equipment/Activities Regulated under Title VI.
- 4. Alternative Methods of Operation.
- Compliance Report and Plan.

With respect to Item 2 of your letter, the storage tanks are included with Item 2 above, List of Proposed Exempt Activities.

The Fort Pierce Utilities Authority is also submitting a new certification form. If you have any questions concerning the information submitted please contact Jim Stevens at (561) 464-5792.

Sincerely,

Thomas W. Richards, P.E. Director of Operations

**Enclosures** 

pc:

H. Lamb

E. Leongomez

S. Treece

Long Jore Holdman - Southwast Postwerk. Ed Ivec J. Stevens

### FORT PIERCE UTILITIES AUTHORITY POWER PLANT Precautions to Prevent Emissions of Unconfined Particulate Matter

The only potential source of unconfined particulate emissions is from vehicular traffic. Precautions to prevent and control unconfined emissions consist of paved fuel delivery roads and parking lots.

### FORT PIERCE UTILITIES AUTHORITY POWER PLANT LIST OF INSIGNIFICANT ACTIVITIES/UNITS

RATIONALE FOR INSIGNIFICANCE
Exempt pursuant to Rule 62-210.300(3)(a)20., FAC
Exempt pursuant to Rule 62-213.430(6), FAC; Potential VOC emissions 1036 lbs/yr
Exempt pursuant to Rule 62-213.430(6), FAC; Potential VOC emissions 275 lbs/yr
Exempt pursuant to Rule 62-213.430(6), FAC; Potential VOC emissions 5 lbs/yr
Exempt pursuant to Rule 62-213.430(6), FAC; Potential VOC emissions 10 lbs/yr
Exempt pursuant to Rule 62-213.430(6), FAC
Exempt pursuant to Rule 62-213.430(6), FAC; No emissions
Exempt pursuant to Rule 62-213.430(6), FAC
Exempt pursuant to Rule 62-213.430(6), FAC
Exempt pursuant to Rule 62-213.430(6), FAC; Oil stored in closed 55 gallon drums; No emissions
Exempt pursuant to Rule 62-210.300(3)(a)24., FAC
Exempt pursuant to Rule 62-210.300(3)(a)22., FAC
Exempt pursuant to Rule 62-210.300(3)(a)16., FAC
Exempt pursuant to Rule 62-213.430(6), FAC; Very low vapor pressures, no emissions

# FORT PIERCE POWER PLANT List of Equipment/Activities Regulated under Title VI

Equipment that contains more than 50 lbs of charge of any Class I or Class II ozone-depleting substance regulated under Title VI of the CAA:

1) Office Air Conditioner - York 30 tons, contains 180 lbs R22

## FORT PIERCE UTILITIES AUTHORITY ALTERNATIVE METHODS OF OPERATION - UNITS 6 THROUGH 9

### UNIT 6

Alternative Method #1: Unit 6 will fire 100 percent natural gas

Alternative Method #2: Unit 6 will fire 100 percent residual No. 6 fuel oil

Alternative Method #3: All units will fire a mixture of Natural Gas and Fuel oil

Normally in 25% increments.

### UNIT 7

Alternative Method #1: Unit 7 will fire 100 percent natural gas

Alternative Method #2: Unit 7 will fire 100 percent residual No. 6 fuel oil

Alternative Method #3: All units will fire a mixture of Natural Gas and Fuel oil

Normally in 25% increments.

### **UNIT 8**

Alternative Method #1: Unit 8 will fire 100 percent natural gas

Alternative Method #2: Unit 8 will fire 100 percent residual No. 6 fuel oil

Alternative Method #3: All units will fire a mixture of Natural Gas and Fuel oil

Normally in 25% increments.

### UNIT 9

Alternative Method #1: Unit 9 will fire 100 percent natural gas

Alternative Method #2: Unit 9 will fire 100 percent distillate No. 2 fuel oil

Alternative Method #3: All units will fire a mixture of Natural Gas and Fuel oil

Normally in 25% increments.

### FORT PIERCE UTILITIES AUTHORITY POWER PLANT Compliance Report and Plan

Each emissions unit (diesel units 1&2, boilers 6, 7 & 8, and combined cyc' unit 9) is in full compliance with each applicable federal, state and local regulation, as detailed under Subsection III-B. Emissions Unit Regulations and with all additional applicable requirements (compliance with current operating permits No. AO 56-175955 and AO 56-190275) as detailed under Subsection III-B. Emissions Unit Supplemental Information.

### Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:											
Name: Thomas W. Richards											
Title: Director of Operations											
2. Owner or Authorized Representative or Responsible Official Mailing Address:											
Organization/Firm: Fort Pierce Utilities Authority											
Street Address: P.O. Box 3191											
City: Fort Pierce											
State: FL Zip Code: 34948											
3. Owner/Authorized Representative or Responsible Official Telephone Numbers :											
Telephone: (407)466-1600 Fax: (407)465-6984											
4. Owner/Authorized Representative or Responsible Official Statement:											
I, the undersigned, am the owner or authorized representative* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.											
Signature Date											

\* Attach letter of authorization if not currently on file.

I. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Effective: 3-21-96



# Department of Environmental Protection

Lawton Chiles Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Virginia B. Wetherell Secretary

January 29, 1997

### CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: Request for Additional Information Regarding Initial Title V Permit Application

File No. 1110003-003-AV

H. D. King Power Plant, St. Lucie County

Dear Mr. Richards:

Your initial Title V permit application for the H. D. King Power Plant was "timely and complete" for purposes of the initial Title V application submission (see Rules 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your application, the Department will need the below additional information pursuant to Rule 62-213.420(1)(b)3., F.A.C., and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

### E. Facility Supplemental Information

1. Several documents were referenced in the application which were not included with the hard copy figures and attachments or could not be found on the ELSA submittals. Please provide four copies of: Precautions to Prevent Emissions of Unconfined Particulate Matter; List of Proposed Exempt Activities; List of Equipment/Activities Regulated under Title VI; Alternative Methods of Operation; and, Compliance Report and Plan.

Is your RETURN ADDRESS completed on the reverse side?	SENDER: Complete items 1 and/or 2 for Complete items 3, and 4a & to Print your name and address or return this card to you. Attach this form to the front of does not permit. Write "Return Receipt Request The Return Receipt will show to delivered.  Article Addressed to: Mr. Thomas W. Rico Director of Operator Pierce Utilians. Port Pierce, Flore	on the of the object of the ob	rever mailp the m n the	se of siece, of nailpiece article	or on to	the back ow the ar lelivered	if space ticle number and the date  4a. Ar  Z  4b. Se  Reg  XX Cerr	follow fee): 1. 2. Consticle Nu 311 Grvice Tylistered	ving :  A  R  ult po  mber  902  /pe  [ iii ]	service address sestrict estmas 872 Insu		extra	I nank you tor using heturn heceipt service.
Is your RETURN	5. Signature (Addressee)  8. Addressee's A											INGIR	
	Receipt for Certified Mail No Insurance Coverage Provided On not use for International Mail (See Reverse)		E P.0. Box 3191	For Pierce, Florida 34948	Postage &	Certified Fee		to Whom & Date Delivered Return Receipt Showing to Whom. Date, and Addressee's Address	TOTAL Postage & Fees	Postmark or Date $1/29/97$	H.D. King Power Plant 1110003-003-AV		

Mr. Thomas W. Richards January 29, 1997 Page 2 of 2

2. Figure 2. shows several storage tanks which are not addressed in the application. Please classify all tanks at the facility as regulated or unregulated and provide all of the applicable Title V application information for each tank.

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C.

If you should have any questions, please call Edward Svec or me at 904/488-1344.

Sincerely,

Administrator
Title V Section

JCB/es

copy to:

Isidore Goldman, P.E., FDEP, SED

Ivan L. Clark, P.E., R. W. Beck

Harry Lamb, Fort Pierce Utilities Authority

[electronic file name: 11100031.ltr]



# Department of Environmental Protection



Lawton Chiles Governor Southeast District P.O. Box 15425 West Palm Beach, Florida 33416

Virginia B. Wetherell Secretary

FEB 2 2 1996

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Z 359 641821 WARNING LETTER WL96-0005AS56SED AP - St. Lucie County

Harry Lamb, Superintendent Fort Pierce Utilities Authority H.D. King Power Plant 311 North Indian River Drive Fort Pierce, Florida 34950

Subject:

SO2 and NOx Emission Exceedances at the H.D. King Power Plant

Dear Mr. Lamb:

The purpose of this letter is to advise you of possible violations of law for which you may be responsible, and to seek your cooperation in resolving the matter. A review of information submitted to the Department indicates that a violation of Florida Statutes and Rules may exist at the above described facility.

Section 403.161 (1)(b), Florida Statutes, provides that it is a violation to fail to comply with any rule, regulation, order, permit or certification adopted or issued by the Department pursuant to its lawful authority. It is a violation of Specific Condition 2.a) (2) A) of Permit AO56-190275 for SO<sub>2</sub> emissions to exceed 0.1917 lb per hour for Unit # 8 and 0.1199 lb per hour for Unit # 7; and for NO<sub>x</sub> to exceed 104.35 lb per hour for Unit # 7. The submitted information showed September 27 and November 29, 1995 stack tests exceeded the permit limitation for SO<sub>2</sub> emissions, and exceeded the permit limitation for NO<sub>x</sub>.

The above incidents and any other activities at your facility that may be contributing to violations of the above described statutes and rules should be ceased immediately. Continued activity in violation of state statutes or rules may result in liability for excess emissions.

You are requested to contact Rich Hofmann or Tom Tittle of this office at 407/433-2650, ext 266 or ext 262, within 15 days of receipt of this Warning Letter to arrange a meeting with Department personnel to discuss this matter. The Department is interested in reviewing any facts you may have that will assist in determining whether any violations have occurred. You may bring anyone with you to the meeting that you feel may help resolve this matter.

Ft. Pierce Utilities WL96-0005AS56SED Page 2 of 2

PLEASE BE ADVISED that this Warning Letter is part of an agency investigation preliminary to agency action in accordance with Section 120.57(4), Florida Statutes. We look forward to your cooperation in completing the investigation and resolution of this matter.

Sincerely,

Carlos Rivero-deAguilar

Date

Director of District Management

CRA:IG:rh

cc: Luna Ergas, Office of General Counsel, FDEP, Tallahassee Dianne Spingler, DARM, DEP, Tallahassee

Air Enforcement Files, DEP, West Palm Beach

AHACHNEN # 4

2782 KINE, 2018

Particulate and Sulfur Dioxide Emission Summary > Unit 7 - Boiler Ft. Pierce Utilities Authority H.D. King Generating Station Ft. Pierce, Florida September 9, 1993

							•				
Run Number	Time	Flow Rate SCFMD	Oxygen	Particulate gr/DSCF	Emissions Ibs/Hr	CO E	missions lbs/Hr		lbs/Hr	VOC Em	lbs/Hr Carbon
							į				
1	1015-1118	97796	6.5	0.0007	0.56	0	0	161.61	113.23	0.006	0.003
2	1210-1311	93947	6.5	0.0005	0.36	0	0	175.39	118.04	0.006	0.003
3 .	1415-1516	93128	6.5	0.0002	0.20	O	0	174.43	116.37	0.006	0.003
AVERAGE	E	94957	6.5	0.0005	0.37 🗸	0	0 V	170.48	115.97	0.006	0.003 V

 $lbs/Hr = ppm (2.595 \times 10-9) MW (60) SCFMD$ 

prud. 0, 56 p

MW CO = 28, MW NOX = 46, MW C = 12.011

Allowable Emissions: (Units 6, 7, and 8 total lbs/Hr)

correct prut ##
0.568#/KR

 $\begin{array}{l} PM = 1.9 & 0.568 \#/\\ NO_X = 278.9 & 104.35\\ VOC = 0.700 & 6.266\\ CO = 20.3 & 7.589\\ SO_2 = 12.7 & 0.1/99 \end{array}$ 

Additionar information for case referral (unit #7).

This table 1. was given me during my 1st Otr CEM Inspection in 1986. By Siw Stevens (Ft. P. Vt. Duth.). The Department failed do indentify the permit invitations error and violation during our nitial review of the test report for viit #7. In 1993.

Nox emission wa Nox to 115.97 #/KR There exceeded the Nox

permit ALLOwable excadence #/HR).

Table 1 Emission Summary

Unit 7 - Compliance Testing - Natural Gas Firing

Ft. Pierce Utilities Authority - Henry D. King Electric Station

Ft. Pierce, Florida

November 29, 1995

						- A			
Run		Volumetric Flow	PM	NOx	NOx	SO <sub>2</sub>	VOC	CO	Visible
No.	Time	SCFMD	lbs/Hr	lbs/Hr	lbs/MMBTU	lbs/Hr	lbs/Hr	lbs/Hr	Emissions
1	1105-1212	102656	0.00	135.83	0.290	- 0.483	0.03	0.00	0%
2 ,	1401-1509	102024	0.00	80.84	0.186	0.732	0.03	0.00	-
_ 3	1546-1654	102010	0.54	80.42	0.185	0.249	0.03	0.00	-
AVERÀGE		102230	0.18	99.03	0.220	0.488	0.03	0.00	0%
						T			

### Allowable Emissions:

### Gaseous Emissions:

PM = 0.568 lbs/Hr

 $SQ_2 = 0.1199 \text{ lbs/Hr}$ 

 $NO_x = 104.35 \text{ lb/Hr}$ 

VOC = 0.266 lbs/Hr

CO = 7.589 lbs/Hr

VE = 5% opacity

ppm<sub>v</sub> gas (see Appendix B) x (2.593 x 10<sup>-9</sup>)(M)(SCFMD)(60)

Where M = 46 for  $NO_x$ 

64.02 for SO<sub>2</sub>

36 for VOC as Carbon

28 for CO

X 11



## **BEST AVAILABLE COPY** Department of



### **Environmental Protection**

Southeast District P.O. Box 15425 West Palm Beach, Florida 33416

Virginia B. Wetherell Secretary

October 7, 1996

Harry Lamb, Superintendent Fort Pierce Utilities Authority H.D. King Power Plant 311 North Indian River Drive Fort Pierce, Florida 34950

SO<sub>2</sub> and NO<sub>x</sub> Emission Exceedances at the H. D. King Power Plant RE:

Dear Mr. Lamb:

This letter is a follow-up to our February 22, 1996 warning letter regarding the above referenced subject. Based on additional information provided by Fort Pierce Utilities (FPU) on September 4, 1996, a revised penalty of \$7100 + \$500 c/e is determined to be appropriate. The penalty calculation sheets are enclosed with this letter for your information.

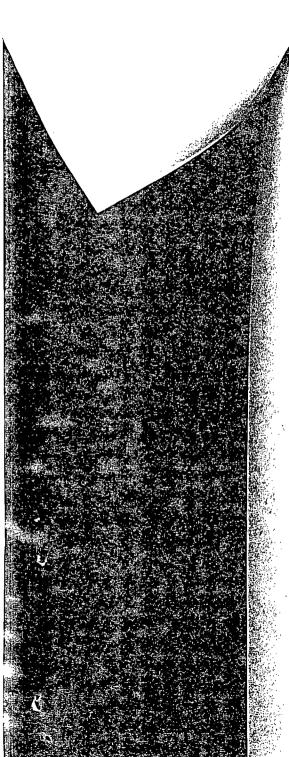
FPU has proposed settling this issue with an in-kind settlement, as referenced in your July 30, 1996 letter. Department policy requires an in-kind settlement to be at least 1.5 times the original penalty amount + c/e, which would necessitate FPU spending \$10,650 (1.5 x \$7100) on the proposed in-kind project and \$500 c/e, for a total expenditure of \$11,150.

The proposed sc: lement is to equip Unit # 7 with a NO<sub>x</sub> continuous emission monitoring system (CEMS). This settlement is acceptable provided Unit #7 does not exceed 10% of their annual capacity within the next 5 years. In this eventuality FPU must submit a pro-rated cash payment equal to the percent of 5 years remaining after 10% capacity was exceeded times the original \$7100 penalty.

Please respond in writing by November 8, 1996 to Tom Tittle regarding your decision to pursue the in-kind settlement outlined above. Thank you for your cooperation in helping the Department settle this issue.

Sincerely,

000 P. A. Ala 10/8/26





#### H. D. KING POWER PLANT

311 North Indian River Drive Fort Pierce, Florida 34950 (561) 464-5792

### RECEIVED

FEB 2 2 2000

BUREAU OF AIR REGULATION

February 16, 2000

Mr. Scott M. Sheplak, P.E.
Department of Environmental Protection
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road, M/S 5505
Tallahassee, FL 32399-2400

Subject:

Title V Permit for H. D. King Power Plant

Fort Pierce Utility Authority Permit No. 1110003-003-AV

Dear Mr. Sheplak:

The Fort Pierce Utility Authority (FPUA) is making fuel supply changes at the subject plant. Effective immediately, the H. D. King Power Plant will store and utilize only No. 2 fuel oil with a sulfur content of 0.5% by weight as a backup fuel supply to all generating units at the site. Steam Units 6, 7 and 8 have previously utilized NO. 6 fuel oil with a sulfur content of 0.84% by weight. Commitment to utilization of only No. 2 fuel oil will reduce SO<sub>2</sub> emissions when fuel oil is being fired in Units 6, 7 and 8.

Table 1 summarizes the potential total SO<sub>2</sub> emission reductions with the change from #6 fuel to #2 fuel. The emission reduction projected compares SO<sub>2</sub> emissions based on other current permitted maximum oil operating hours for Units 6, 7 and 8.

#### TABLE 1 PROJECTED SO<sub>2</sub> EMISSION REDUCTIONS FOR H. D. KING POWER PLANT **Fuel Oil Usage Change** Unit 6, 7 & 8 Fuel SO<sub>2</sub> Emissions for 400 **Sulfur Content Operating Hours Per Year Heat Input** SO<sub>2</sub> Emissions Rate (mmBtu/hr) (lbs./mmBtu) (tons) (%) No. 6 Fuel 1300 0.84 $0.80^{(1)}$ 208.0 No. 2 Fuel 1300 0.50 0.51(2) 132.6 **Potential Emissions** Reduction 0 75.4 0 0

Emissions for particulates, NOx, CO and VOC would not be expected to significantly change with this fuel change.

<sup>(1)</sup> Based on the permit limit for No. 6 fuel oil

<sup>(2)</sup> Based on 0.5% sulfur No. 2 fuel oil

The Fort Pierce Utilities Authority is requesting an administrative change to Permit No. 111003-003-AV, Condition A.3.b to add a Permitting Note allowing firing backup fuel oil (No. 2 fuel, 0.5% Sulfur content) for the following conditions:

- 1) Liquid fuel systems maintenance as per manufacturer's specifications.
- 2) Restricted availability of natural gas.

If there are any questions per the requested change please feel free to contact George Miller at (561) 464-5792.

Sincerely.

Thomas W. Richards, P.E.

Director, Operations

TWR:GM/p

pc:

E. Leongomez

S. Treece

G. Miller



#### H. D. KING POWER PLANT

311 North Indian River Drive Fort Pierce, Florida 34950 (561) 464-5792

November 30, 1999

Mr. Lennon Anderson
Florida Department Of Environmental Protection
Southeast District
400 North Congress Avenue
P.O.Box 15425
West Palm Beach , Florida 33416-5425

Subject:

Title V Permit for H. D. King Power Plant

Ft. Pierce Utility Authority Permit No. 1110003-003-AV

Dear Mr. Anderson:

(2) Based on 0.5% sulfur No. 2 fuel oil.

The Fort Pierce Utilities Authority (FPUA) is making plans for fuel supply changes at the subject plant. Effective immediately the H. D. King Power Plant will store and utilize only No. 2 fuel oil, with a sulfur content of 0.5 % by weight, as a backup fuel supply to all of the generating units at the site. Steam Units 6, 7 and 8 have previously utilized No. 6 fuel oil with a sulfur content of 0.84 % by weight. Commitment to utilization of only No. 2 fuel oil will reduce fuel handling, operations, and maintenance requirements and will reduce emissions when fuel oil is being fired in Units 6, 7 and 8. Assuming fuel oil usage of 400 hours per year, which is the total amount permitted for Units 6, 7 and 8, Table 1 summarizes the potential SO<sub>2</sub> emission reductions from this fuel change.

#### TABLE 1 POTENTIAL SO<sub>2</sub> EMISSION REDUCTIONS FOR H. D. KING POWER PLANT Fuel Oil Usage Change Unit 6, 7 & 8 **SO2 Emissions Rate** SO<sub>2</sub> Emissions for 400 Fuel Heat Input **Sulfur Content** (lbs/mmBtu) **Operating Hours Per Year** (mmBtu/hr) (tons) (%) $0.80^{(1)}$ No. 6 Fuel 1300 0.84 208 0.51<sup>(2)</sup> No. 2 Fuel 1300 132.6 0.50 Potential Emisssion 75.4 Reduction (1) Based on the permit limit for No. 6 fuel oil.

Emissions for particulates, NOx, CO and VOC would not be expected to significantly change with this fuel change.

Florida Department of Environmental Protection November 30, 1999 Page 2

If there are questions concerning the requested change, please feel free to contact me at (561) 464-5792.

Sincerely

Edward S. Leongomez

Superintendent-Power Generation

cc: T. Richards

S. Treece

G. Miller

Date: 1/2/98 11:02:26 AM Mary Fillingim TAL New Posting From:

Subject: See Below To:

There is a new posting available on Florida's website.

FT PIERCE UTILITIES AUTHORITY 1110003

#### FINAL

The notification letter is enclosed and attached. Please let me know if you have any questions.

Thanks, Mary

To: adams yolanda To:

pierce carla Barbara Boutwell TAL To: To: Scott Sheplak TAL Terry Knowles To: TALTo: danois gracy

To: Elizabeth Walker TAL

Ed Svec TAL CC: