Department of Environmental Protection

Lawton Chiles
Governor

Northwest District
160 Governmental Center
Pensacola, Florida 32501-5794

Virginia B. Wetherell
Secretary

September 19, 1997

Jennette Curtis
Environmental Affairs Coordinator
City of Tallahassee
300 South Adams Street
Tallahassee, Florida 32301-1731

Dear Ms. Curtis,

This letter is in response to your faxed letter dated September 17, 1997 requesting changes in visible emissions testing requirements at your Arvah B. Hopkins generating facility, new AIRS ID 0730003, 001 (old AIRS ID 10TLH37000301), air operating permit AO37-242825, and at your Sam O. Purdom generating facility, new AIRS ID 1290001, 005, 006, 007 (old AIRS ID 10TLH65000105, 06, 07), air operating permit AO65-242831. This is done to allow for relief from testing requirements as allowed by F.A.C. Rule 62-297.310(7)(a)4.

By this letter, air operating permits AO37-242825 and AO65-242831 shall be amended as follows:

Specific Condition 5,Footnote *1, From:

*1 No particulate emissions test shall be required in any federal fiscal year in which the fossil fuel system generator did not burn fuel oil for more than 400 hours other than during startup.

To:

*1 No particulate emissions test or visible emissions test shall be required in any federal fiscal year in which the fossil fuel system generator did not burn fuel oil for more than 400 hours other than during startup.

This letter shall be attached to, and become a part of, air operating permits AO37-242825 and AO65-242831.

Sincerely,

Ed K. Middleswart

Ed K. Middleswart, P.E.
Air Program Administrator

EKM:asc

cc: DEP Division of Air Resources Management, Tallahassee
DEP Northwest District Branch Office, Tallahassee

CITY OF TALLAHASSEE
CITY HALL
300 S. ADAMS ST.
TALLAHASSEE, FL
32301-1731
904/891-0010
TDD 1-800/955-8771

SCOTT MADDOX
Mayor
STEVE MEISBURG
Mayor Pro Tem

JOHN PAUL BAILEY
Commissioner
DEBBIE LIGHTSEY
Commissioner
RON WEAVER
Commissioner

ANITA R. FAVORS
City Manager
ROBERT B. INZER
City Treasurer-Clerk

JAMES R. ENGLISH
City Attorney
RICARDO FERNANDEZ
City Auditor

July 15, 1997

HAND DELIVERED

Mr.Scott Sheplak
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: City of Tallahassee Arvah B. Hopkins Generating Station
"Draft" Proposed Title V Permit No.: 0730003-001-AV

Dear Mr. Holtom:

Please be advised that the City of Tallahassee has reviewed the draft of the Proposed Title V Permit to be sent to EPA for review and comment, which was received at 4 P.M. on Friday, July 11th. The City appreciates the effort the Department has made to review and incorporate our earlier comments on the draft permit. The City requests that the Department consider our final comments on the Proposed Title V Permit and provide us with revised pages as soon as possible to ensure that these issues are finally resolved. to Based on our review we would like to offer the following comments:

1. For clarification purposes, the last line of the first paragraph of the response to Comment No. 2 should state the "...this being the design heat input rate of the unit ~~has always operated at~~ while firing natural gas,...." to accurately reflect our comment and certifications related to this manner.

2. For informational purposes, the City noted that several changes made to the permit based on its comments and the Department's responses were not reflected in later comments. For example, the inclusion of the higher heat input rate for Boiler No. 2 while firing Natural Gas was incorporated into the permit in response to Comment No. 2. while review of the Department's response to Comment Nos. 5 and 7 noted that this particular change was not incorporated into the revised description. We will assume that these changes and similar ones will be consistent within the final Proposed Permit to be sent to EPA.

3. In response to Comment No. 10, the Department has incorporated the changes the City requested and through Condition Nos. A.11., A.21., B.11., and B.21. has established the procedures for calculating emissions of sulfur dioxide. Since Condition Nos. A.10. and B.10. establish emission limitations for sulfur dioxide, it is requested that the second sentence of Condition Nos. A.10. and B.10. be removed to ensure consistency with the procedures of Condition Nos. A.11., A.21., B.11., and B.21.

4. In response to Comment No. 11, the Department has used the word "assume" in Conditions A.11. and B.11(second sentence). By reviewing the conditions, the City believes that the Department's intent is for the City to "use" the values provided by the vendors. If this is the case, the City requests that the Department use the word "use" in place of "assume" to avoid confusion.
5. In response to Comment No. 11, the Department has revised Condition Nos. A.21 and B.23. The City requests that the following additional changes be made to these conditions for clarification purposes.

   Delete Section 3) of Condition Nos. A.21.a and B.23.a since the conditions relate to fuel oil and Section 3) references the default sulfur content value to be used for natural gas.

   Change Condition Nos. A.21.c and B.23.c to read "..Establish and maintain a record of the ~~density (using ASTM D 1298-80 or equivalent) and the~~ calorific heat..." to be consistent with the Department's response to Comment No. 11.

   Change Condition Nos. A.21.d. and B.21.d. to require the tracking of only the amount of each fuel fired. This will avoid the collection of unnecessary data and ensure consistency with the other parts of these conditions.

   Delete the term "at all times" from conditon Nos. A.21.e and B.23.e if it implies that sulfer dioxide emissions must be calculated continuously based on the data collected under the conditions.

Thank you for considering the additional comments and requests prior to submittal of the Proposed Permit to EPA and we will look forward to seeing a Proposed Permit in the near future. Also, would you please ensure that I am copied on all correspondence from your offices in the future. If you have any questions or feel further discussions are necessary please call me at 891-8850.

Sincerely

Jennette Curtis

Jennette Curtis
Envrionmental Administrator

cc: Jonathan Holtom, FDEP
Jeffery Brown, FDEP-OGC
Rob McGarrah, City of Tallahassee
Karl Bauer, City of Tallahassee
Triveni Singh, City of Tallahassee
Darrel Graziani, FWENC
Doug Fulle, FWENC

7/15/97 cc: Scott Sheplak
Bruce Mitchell
Jonathan Holtom

CITY OF TALLAHASSEE

CITY HALL
300 S. ADAMS ST.
TALLAHASSEE, FL
32301-1731
904/891-0010
TDD 1-800/955-8771

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City Manager
ROBERT B. INZER
City Treasurer-Clerk

JAMES R. ENGLISH
City Attorney
RICARDO FERNANDEZ
City Auditor

HAND-DELIVERED

July 7, 1997

Mr. Scott Sheplak, P.E.
Bureau of Air Regulation
Florida Department of Environmental Regulation
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Draft Title V Permit No.: 0730003-001-AV
Arvah B. Hopkins Generating Station
Additional Information

Dear Mr. Sheplak

On June 19, 1997, we met with you and your staff to discuss the above-referenced permit. As discussed at the meeting, I am providing the Department the attached Responsible Official's Certification Statement and Professional Engineer's Certification Statement in order to maintain, through the Title V permitting process, a 2,500 MMBtu/hr natural gas heat input limit on Boiler No. 2. The statement is provided to the Department to confirm that the boiler has not undergone any "modification" as defined in Rule 62-210.200(187), F.A.C. in order to increase the boiler's heat input capacity.

As always, thank you for your continued cooperation in considering issues pertaining to the Arvah B. Hopkins Draft Title V Permit. If you have any questions regarding the contents of this letter, please call Jennette Curtis at 891-8850.

Sincerely,

Robert E. McGarrah
Production Superintendent
Title V Responsible Official

cc: Jonathan Holtom, DEP
Jennette Curtis, COT
Karl Bauer, COT
Darrel Graziani, FWE

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CERTIFICATION STATEMENT

I, the undersigned, as the responsible official (as defined in Rule 62-210.200(246), F.A.C.) of the Arvah B. Hopkins Generating Station, hereby certify, based on information and belief formed after reasonable inquiry, that Boiler No. 2 has not undergone any "modification" as defined in Rule 62-210.200(187), F.A.C. in order to increase the boiler's heat input capacity.

Robert E. McGarrah
Production Superintendent
Responsible Official

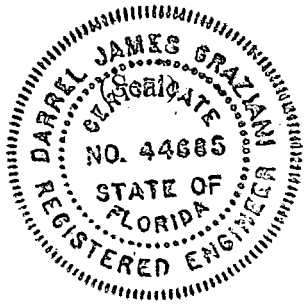
7/7/97
Date

"CERTIFICATION STATEMENT"

On June 14, 1996 the City of Tallahassee's Electric Department (City) submitted its initial application for a Title V Operating Permit in accordance with the requirements of Rule 62-213, Florida Administrative Code (F.A.C.), including my certification as a professional engineer. The initial application included maximum heat input rates for both natural gas and fuel oil based on the Unit's design. As a result of the Florida Department of Environmental Protection's review of the application, a question relating to the differences between the maximum heat input of natural gas (2,500 mmBtu/hr) and fuel oil (2,325 mmBtu/hr) and the possibility of a modification was raised. In responding to the question, the Florida Department of Environmental Protection has asked that the Responsible Official and the Professional Engineer certify that the differences in the heat input rates are not the result of any modification(s).

Based on the Florida Department of Environmental Protection's request, I examined the differences between the heat input rates and inquired into the installation and maintenance of the combustion air system and the natural gas burners. Based upon my examination of the heat rates and reasonable inquiry into the combustion air system and the natural gas burners, I certify that the heat input rate differences are not the result of any "modification" as defined in Rule 62-210.200 (187), F.A.C., which would have increased the boiler's heat input capacity.

Signature _____ Date 7/3/97



CITY OF TALLAHASSEE

CITY HALL
300 S. ADAMS ST.
TALLAHASSEE, FL
32301-1731
904/891-0010
TDD 1-800/955-8771

HAND-DELIVERED

June 18, 1997

Mr. Scott Sheplak, P.E.
Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400

RE: Draft Title V Permit No.: 0730003-001-AV
Arvah B. Hopkins Generating Station
Comments and 2nd Revision to Application

Dear Mr. Sheplak:

On May 27, 1997, the City of Tallahassee received the Department of Environmental Protection's Draft Title V Permit for the Arvah B. Hopkins Generating Station. The City appreciates the efforts afforded by the Bureau of Air Regulation in reviewing the application and issuing the Draft Permit. The City has identified a few comments regarding the Draft Permit and has compiled the comments in an attachment to this letter, along with four copies of revised pages from the Arvah B. Hopkins Generating Station Title V Permit Application (original submitted on June 14, 1996; 1st revision submitted on February 27, 1997) addressing those comments [revised Attachment HGS-04, Attachment HGS-06, and Emission Point (Stack/Vent) Information and Segment Descriptions from Emission Unit Information sections 5 of 6 and 6 of 6]. The City has also included four copies each of the Responsible Official's Certification, the Professional Engineer's Certification and the marked-up draft permit pages reflecting the City's comments and changes to the application.

We appreciate the Department meeting with us on June 19, 1997, to discuss these comments and we want to continue to work with the Department to ensure that the final permit is issued in a timely manner, and are certain that the comments that have been identified can be resolved without the need for a hearing.

Thank you for considering the City's comments and for your continued cooperation. We look forward to hearing from you soon. If you have any questions or would like to schedule a meeting to discuss the issues identified, please call Jennette Curtis at 891-8850.

Sincerely,

Robert E. McGarrah
Production Superintendent
Title V Responsible Official

cc: Jonathan Holtom, DEP
Jeffrey Brown, DEP, OGC
Jennette Curtis, COT
Karl Bauer, COT
Darrel Graziani, FWE

City of Tallahassee
Arvah B. Hopkins Generating Station
Draft Title V Permit

General Comments

1. In regards to the Department's use of "Not Federally Enforceable" to identify State-only requirements, our review has identified several additional permit conditions (Emission Unit-Specific Conditions A.1, A.2, A.3, A.23, A.24, B.1, B.2, B.3, B.28, B.29, C.1, C.2, C.3, C.9, C.12, and C.13) which should be listed in this manner.

2. The heat input limit of 2,500 MMBtu/hr, applicable to 100 percent natural gas firing, should be added to references regarding Boiler No. 2. (Section I. Subpart B, Section III. B.1, Section IV. Subsection A, Table 1-1, and Table 2-1). The City would like to point out that Boiler No. 2 has never undergone physical or operational changes and that the Unit has always been operated with the understanding that the maximum heat input on natural gas at full capacity is 2,500 MMBtu/hr

Section I. Facility Information, Subsection A. Facility Description.

3. In the clarification of enforceability regarding Permitting Notes please delete the term 'Federally Enforceable' and replace with the term "enforceable."

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

4. The City has revised/added to the Emissions Unit Inventory included in the Permit Application (see attached HGS-06). As such, the City requests that FDEP make a corresponding revision to include the following unregulated emissions units and/or activities:

-005 Fugitive VOC Sources - Painting Operations
-xxx General Purpose Engines
-yyy Emergency Generators

5. For the combustion turbines, please remove the term "Peaking Unit" and replace it with "(LHV)" to more accurately reflect the firing rate which is based on the lower heating value of the fuel. The "(LHV)" designation should also be applied to the maximum heat input rate for the combustion turbines in the Subsection D description and Condition D.1.

Section II. Facility-wide Conditions

6. Condition No. 8 relates to reasonable precautions to prevent emissions of unconfined particulate matter. Please eliminate condition 8.c. and revise condition 8.d. by deleting the second sentence beginning with "Additionally, water shall be..." A revised Attachment PGS-04 reflecting the requested changes are attached.

Section III. Emissions Unit(s)
General

7. Please revise the permit to clarify that Boilers Number 1 and 2 may burn on-specification used oil generated by the City, as requested in the application. (Descriptions for Subsections A and B, Conditions A.1, A.3, B.1, B.3, and Table 1-1).

8. The City is revising the Permit Application to include burning of non-hazardous boiler chemical cleaning wastes in Boilers Number 1 and 2 (see attached) and request that FDEP provide corresponding changes to the Permit. (Conditions A.3, B.3, and Table 1-1). Please note, there will be no emissions increase related to this revision.

9. Conditions A.4 and B.4 relate to the allowable hours of operation of the boilers. Please delete the second sentence of the conditions which requires an operations log since the unit is allowed to operate continuously.

10. Conditions A.10 and B.10 relate to the requested sulfur dioxide limit on Boilers Number 1. The City requests that this condition be made federally enforceable through the Title V permit.

11. Conditions A.11, A.21, B.11, and B.26 relate to sampling and analysis of fuel oil for purposes of determining allowable blend. As written, the Permit would potentially prevent the City from firing oil for up to 30 days while awaiting receipt of analysis. This is more restrictive then necessary, especially with the fact that oil deliveries are often received while the City is burning oil in these units. Thus, the City requests that FDEP modify the language to require calculating the maximum allowable blend based on the vendor's or permittee's sulfur content data if greater then the sulfur percent of the existing on-site fuel oil, established by previous analysis, until such time that more accurate analysis is available. This language is a sufficiently conservative approach to calculating the maximum allowable blend and provides reasonable assurance that the sulfur dioxide limit will be achieved while awaiting analysis.

Chapter 40 CFR 75, Appendix D, Section 2.2.6 requires density analysis when the fuel oil flowmeter records volumetric flow. Because the City records mass flow, there is no need for density analysis. Thus, the City requests FDEP delete the requirement for density analysis for fuel oil.

Also, the City requests that FDEP modify language to allow use of the 0.0006 lb/MMBtu sulfur dioxide emission factor default value as established in the *Compilation of Air Pollutant Emission Factors* (AP-42) and 40 CFR 75, Appendix D.

12. Conditions A.24 and B.29 relate to operating conditions during particulate matter testing. It should be noted that the City is unable to assure the availability of the highest sulfur content fuel oil when compliance testing is conducted. Thus, the City would potentially be required to vacate one of the fuel oil storage tanks and order enough of the higher sulfur fuel oil in order to complete compliance testing. Similarly, the City has noted minor fluctuations in the sulfur content of a single delivery of fuel oil due to factors such as precision and accuracy of analytical equipment and test methods. Such fluctuations could be construed as a violation of conditions A.24 and B.29 under the proper circumstances (e.g., a 0.98 percent sulfur content recorded during the year and a 0.94 percent sulfur content recorded at the time of compliance testing). Thus, the City is requesting that FDEP

recognize these burdens and adopt the conditions of the existing Air Operating permits by deleting the requirement to test while firing the highest sulfur content fuel oil used since the last test.

Subsection A

13. The City is revising the exit temperature of Boiler No. 1 in the Permit Application. As such, the City requests FDEP to make corresponding revisions to the Permitting Notes to reflect the range of exit temperatures as 260 - 305°F.

Subsection B

14. The City is revising the exit temperature of Boiler No. 2 in the Permit Application. As such, the City requests FDEP to make corresponding revisions to the Permitting Notes to reflect the range of exit temperatures as 220 - 305°F.

15. Please delete Condition B.17, B.18, and B.20. Boiler No. 2 is an existing unit not subject to Rule 62-296.405(1)(f)1.c, F.A.C.

Lists of Exempt (Appendix E-1) and Unregulated (Appendix U-1) Emissions Units and/or Activities

16. The City has revised/added to the Emissions Unit Inventory included in the Permit Application (see attached HGS-06). As such, the City requests that FDEP make a corresponding revision to the list of exempt (Appendix E-1) and unregulated (Appendix U-1) emissions units and/or activities. The revised lists should reflect the following:

Appendix E-1

- Exempt emission numbers 10 - 18 are associated with Boiler No. 2, not Boiler No. 1.
- Add a new Diesel Oil Tank associated with the Hydrant Main.
- Distinguish that the fuel farm has three transfer stations and two loading/unloading stations
- Revision to exempt emission No. 50 to reflect a change from (15) to (1-15).
- Add (1-12) Space Heaters.
- Add Laboratory emission units (Laboratory Fume Hoods, Laboratory Equipment, Chemical Usage, and Vacuum Pump).

Appendix U-1

- Add the category "General Purpose Internal Combustion Engines" and include the Diesel driven Pump associated with the Hydrant Main, welding generator, portable diesel pump, and portable generator.
- Add the category "Emergency Generators" and include the two emergency generators.

Permit History/ID Number Changes (Appendix H-1)

17. Emission Unit ID No. 002 should include the term "Combustion" as part of the Description.

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

18. In the "Standards" column, 60 percent opacity should be added for soot blowing and load changes for 3 hours/day for Boilers 1 and 2.

19. The City requests that a footnote be added regarding excess emission for startup, shutdown, and malfunctions, as appropriate, and the reference to 62-200 in the "Regulatory Citation" column should be changed to 62-210.

20. The City requests that a summary of the NOx emissions standards be included for Boiler No. 2.

21. The Regulatory Citation for the Boiler No. 1 and No. 2 sulfur dioxide limits should be noted as Applicant Request.

22. The annual equivalent emissions for sulfur dioxide from the Combustion turbines No. 1 (CT1) was not correct in the Draft Permit. The City requests FDEP to revise the annual sulfur dioxide emission calculated for CT1.

23. The allowable heat input limit for Combustion Turbine No. 2 was not correctly referenced in the Emission Unit Description and equivalent emissions for sulfur dioxide were omitted. The City requests FDEP revise the maximum allowable heat input to 446 MMBtu/hr and include values for the equivalent emissions of sulfur dioxide.

Table 2-1, Summary of Compliance Requirements

24. In the "Testing Time Frequency" column, the testing requirements for natural gas should be changed to "N/A." In addition, footnote 3 should be revised to clarify that PM testing is not required prior to renewal if oil is fired less than 400 hours during the prior year.

25. The City requests that FDEP clarify that the Compliance Testing Duration for particulate matter is based on the average of three 1-hour runs.

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of two fossil fuel-fired steam generators and two combustion turbines. The two steam generators are Phase II Acid Rain Units. Boiler Number 2 is regulated under the Florida Electrical Power Plant Siting Act. The total (nominal) combined electrical generating capacity from the facility is 356.27 megawatts electric (MW), of which, 313 MW are provided by the steam generators and 43.27 MW are provided by the combustion turbines. The fuels used at this facility are natural gas and various combinations of fuel oil. Also included in this permit are miscellaneous unregulated/exempt emissions units and/or activities.

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

The use of 'Permitting Notes' throughout this permit are for informational purposes only. They are not to be considered as ~~'Federally Enforceable'~~ enforceable conditions.

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

E.U. ID No.	Brief Description
-001	Boiler Number 1 - 903 MMBtu/hour (Phase II Acid Rain Unit)
-002	Combustion Turbine Number 1 - 228 MMBtu/hour ~~Peaking Unit~~ (LHV)
-003	Combustion Turbine Number 2 - 446 MMBtu/hour ~~Peaking Unit~~ (LHV)
-004	Boiler Number 2 - 2,325 MMBtu/hour; 2,500 MMBtu/hour on 100 percent natural gas (Phase II Acid Rain Unit)

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

E.U. ID No.	Brief Description
~~-xxx~~005	Fugitive VOC Sources - Painting Operations
-xxx	General Purpose Engines
-yyy	Emergency Generators

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

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

a) Concrete mixing in the portable concrete mixer shall be operated on an as-needed basis. Reasonable precautions include enclosing the activity wherever practical.

b) Abrasive blasting activities that are associated with normal maintenance and corrosion control activities shall be enclosed wherever practical.

~~The aggregate storage piles that occur on a temporary basis in association with miscellaneous construction activities shall have water applied on an as-needed basis to control unconfined emissions from the handling and storage of these materials and the related construction activities~~.

c) Unconfined emissions associated with the limited on-site traffic shall be controlled by limiting vehicle speeds and unnecessary traffic within the plant grounds. ~~Additionally, water shall be applied by the use of hoses (manual operation), as needed.~~

[Rule 62-296.320(4)(c)2., F.A.C., Proposed by applicant in initial Title V permit application received June 14, 1996, 1st Revision to Title V permit application received on June 18, 1997]

9. **Not federally enforceable**. The Department's Northwest District Branch Office (Tallahassee) telephone number for reporting problems, malfunctions or exceedances under this permit is (904) 488-3704, day or night, and for emergencies involving a significant threat to human health or the environment is (904) 413-9911. The Department's Northwest District Office (Pensacola) telephone number for routine business, including compliance test notifications, is (904) 444-8364 during normal working hours.

10. **Not federally enforceable**. The permittee shall submit all compliance related notifications and reports required by this permit to the Department's Northwest District Office located at 160 Governmental Center, Pensacola, Florida 32501-5794.

Section III. Emissions Units and Conditions.

Subsection A. This section addresses the following emissions unit.

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

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

{Permitting notes: This emissions unit is regulated under Acid Rain, Phase II. This emissions unit pre-dates PSD regulations, but is regulated under Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input. Stack height = 200 feet, exit diameter = 11.0 feet, exit temperature = ~~260.6~~220-305 °F, actual volumetric flow rate = 223,755 acfm. Emissions from this boiler are uncontrolled. This unit began commercial operation in May of 1971.}

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

Essential Potential to Emit (PTE) Parameters

A.1. **Not Federally Enforceable.** Permitted Capacity. The maximum operation heat input rate is as follows:

Unit No.	MMBtu/hr Heat Input	Fuel Type
-001	903	Natural Gas
	903	No. 2 - No. 6 Fuel Oil; City-generated on-spec used oil (40 CFR 279.11)

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

A.2. **Not Federally Enforceable.** Emissions Unit Operating Rate Limitation After Testing. See specific condition **A.23**.
[Rule 62-297.310(2), F.A.C.]

A.3. **Not Federally Enforceable.** Methods of Operation - Fuels. The only fuels allowed to be burned in this boiler are natural gas and/or new No. 2 thru No. 6 fuel oil, City-generated on-spec used oil (no more than 10,000 gallons per year), pursuant to Chapter 40 CFR 279.11, and/or non-hazardous boiler chemical cleaning waste.
[Rule 62-213.410, F.A.C.; Guidance No. DARM-SS/CE-07]

A.4. Hours of Operation. This emissions unit may operate continuously, i.e. 8760 hours/year. ~~The Permittee shall maintain an operation log available for Department inspection that documents the total hours of operation annually.~~
[Rule 62-210.200(PTE), F.A.C.; and, Applicant request in initial Title V application received June 14, 1996.]

Emission Limitations and Standards

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

A.5. Visible Emissions. Visible emissions shall not exceed 20 percent opacity, except for one two-minute period per hour during which opacity shall not exceed 40 percent
[Rule 62-296.405(1)(a), F.A.C.]

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

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.
[Rule 62-210.700(3), F.A.C.]

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

A.8. Particulate Matter - Soot Blowing and Load Change. Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.
[Rule 62-210.700(3), F.A.C.]

A.9. Sulfur Dioxide. When burning liquid fuel, sulfur dioxide emissions shall not exceed 1.87 pounds per million Btu heat input , as measured by applicable compliance methods.
[Rule 62-296.405(1)(c)1.h., F.A.C.]

A.10. ~~**Not federally Enforceable.**~~ Sulfur Dioxide. Sulfur dioxide emissions shall not exceed 0.75 pounds per million Btu heat input, as measured by applicable compliance methods. Any calculations used to demonstrate compliance shall be based solely on the heating value, quantities, and the percent sulfur of the liquid and gaseous fuels being burned.
[Rule 62-204.220 & .240, F.A.C.; AO37-242825 specific condition 4 and Applicant's request in initial Title V permit application received June 14, 1996.]

A.11. Fuel Sulfur. Fuel sulfur content (percent by weight) shall be determined by a fuel analysis representative of "as-fired" fuel. The results of the fuel analysis shall be received in order to calculate a maximum allowable blend of natural gas and fuel oil, prior to burning any fuel oil in the boiler. This prior calculation is required in order to ensure that the allowable SO_2 limit is not exceeded. (See specific conditions **A.10. and A.21.** of this permit.) Upon subsequent fuel oil deliveries, if the vendor's or permittee's data ~~delivery receipt~~ indicates that the sulfur content of the delivered fuel is greater than the

sulfur percent established by the previous analysis, a new analysis shall be conducted after the newly delivered fuel has been sufficiently blended with the existing fuel. The results of this analysis shall be used to calculate a new maximum allowable blend of natural gas and fuel oil ~~prior to burning any of the newly delivered fuel~~. Until such time that the analysis is available, permittee may burn fuel oil provided the maximum allowable blend is calculated based on the greater sulfur content value of the vendor's or permittee's data. If the vendor's delivery receipt indicates that the sulfur content of the delivered fuel is less than the sulfur percent previously established, a new analysis is only necessary if the permittee wishes to adjust the previously established blend of natural gas and fuel oil. For purposes of determining the maximum allowable blend, permittee may use the sulfur dioxide emission factor default value of 0.0006 lb/MMBtu as established in the *Compilation of Air Pollutant Emission Factors* (AP-42) and 40 CFR 75, Appendix D. No natural gas sampling and analysis will be required if permittee elects to use the natural gas sulfur dioxide emission factor default value.
[Rules 62-4.070(3) and 62-296.405(1)(c)3., F.A.C.]

Excess Emissions

A.12. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

A.13. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.
[Rule 62-210.700(2), F.A.C.]

A.14. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

{Permitting Note: In accordance with the Acid Rain Phase II requirements, the following continuous monitors are installed on this unit: Gas Fuel Flow, Oil Fuel Flow, NOx and CO_2.}

A.15. Sulfur Dioxide. **The permittee elected to demonstrate compliance using fuel sampling and analysis.** This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **A.11. and A.21.** of this permit.
[Rule 62-296.405(1)(f)1.b., F.A.C.]

A.16. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with

A.20. Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedances of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by using fuel sampling and analysis.** See specific conditions **A.11. and A.21.**
[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.401, F.A.C.; and, AO37-242825.]

A.21. The following fuel sampling and analysis protocol shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard:

a. Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91 to analyze a representative sample of the blended fuel following each fuel delivery.
~~b. Establish and maintain a record of the sulfur content of the "as-fired" natural gas.~~
~~e~~b. Record daily the amount of each fuel fired, ~~the density of each fuel~~, the heating value (Btu/lb), and the percent sulfur content by weight ~~of each~~for fuel oil.
~~d~~c. Utilize the information in a.,and b. ~~and c.~~, above, and the sulfur dioxide emission factor default value of 0.0006 lb/MMBtu (established by the *Compilation of Air Pollutant Emission Factors* (AP-42) and 40 CFR 75, Appendix D) to calculate the SO_2 emission rate to ensure compliance at all times.

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

Compliance Test Requirements

A.22. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

A.23. **Not Federally Enforceable.** Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

A.24. **Not Federally Enforceable.** Operating Conditions During Testing - Particulate Matter. When required, testing for particulate matter emissions shall be conducted while firing fuel oil at the highest ~~that contains a sulfur content equal to the highest sulfur content used since the last test and the corresponding~~ ratio of fuel oil to natural gas used since the last test~~that was fired at that time~~.
[Rules 62-4.070(3) and 62-296.405(1)(c)3., F.A.C.]

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

A.26. Applicable Test Procedures.

(a) Required Sampling Time.

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

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

E.U. ID No.	Brief Description
-004	Boiler Number 2, (Phase II Acid Rain Unit)

Emissions unit number 004 is a Babcox & Wilcox steam generator (model number RB-533) designated as "Boiler Number 2". It is rated at a maximum heat input of 2,5002,325 million Btu per hour (MMBtu/hour) when firing 100 percent natural gas or 2325 MMBtu/hr when firing fuel oil and at a nominal 238 MW and 1,619,000 pounds of steam per hour.

{Permitting notes: This emissions unit is regulated under Acid Rain, Phase II and the Florida Electrical Power Plant Siting Act (permit number PA 74-03D). This emissions unit pre-dates PSD regulations, but is regulated under Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input. Stack height = 250 feet, exit diameter = 14.0 feet, exit temperature = 260.6220-305 °F, actual volumetric flow rate = 636,706 acfm. Emissions from this boiler are uncontrolled. This unit began commercial operation in October of 1977.}

The following conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

B.1. **Not Federally Enforceable.** Permitted Capacity. The maximum operation heat input rate is as follows:

Unit No.	MMBtu/hr Heat Input	Fuel Type
-004	2,3252,500	Natural Gas
	2,325	No. 2 - No. 6 Fuel Oil; City-generated on-spec used oil (40 CFR 279.11)

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

B.2. **Not Federally Enforceable.** Emissions Unit Operating Rate Limitation After Testing. See specific condition **B.28.**
[Rule 62-297.310(2), F.A.C.]

B.3. **Not Federally Enforceable.** Methods of Operation - Fuels. The only fuels allowed to be burned in this boiler are natural gas and/or new No. 2 thru No. 6 fuel oil., City-generated on-spec used oil (no more than 10,000 gallons per year), pursuant to Chapter 40 CFR 279.11, and/or non-hazardous boiler chemical cleaning waste.
[Rule 62-213.410, F.A.C.]

B.4. Hours of Operation. This emissions unit may operate continuously, i.e. 8760 hours/year. The Permittee shall maintain an operation log available for Department inspection that documents the total hours of operation annually.

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

Emission Limitations and Standards

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

B.5. Visible Emissions. Visible emissions shall not exceed 20 percent opacity, except for one two-minute period per hour during which opacity shall not exceed 40 percent.
[Rule 62-296.405(1)(a), F.A.C.]

B.6. Visible Emissions. 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.
[Rule 62-210.700(3), F.A.C.]

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

B.8. Particulate Matter. 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.

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.9. Sulfur Dioxide. Sulfur dioxide emissions when burning liquid fuel shall not exceed 1.87 pounds per million Btu heat input , as measured by applicable compliance methods.
[Rule 62-296.405(1)(c)1.h., F.A.C.]

B.10. ~~**Not federally enforceable.**~~ Sulfur Dioxide. Sulfur dioxide emissions shall not exceed 1.4 pounds per million Btu heat input, as measured by applicable compliance methods. Any calculations used to demonstrate compliance shall be based solely on the heating value, quantities, and the percent sulfur of the liquid and gaseous fuels being burned.
[Rules 62-204.220 & .240, F.A.C.; and, FEPPSA Permit Number PA 74-03D and Applicant's request in initial Title V permit application received June 14, 1996.]

B.11. Fuel Sulfur. Fuel sulfur content (percent by weight) shall be determined by a fuel analysis representative of "as-fired" fuel. The results of the fuel analysis shall be received in order to calculate a maximum allowable blend of natural gas and fuel oil prior to burning any fuel oil in the boiler. This prior calculation is required in order to ensure that the allowable SO_2 limit is not exceeded. (See specific conditions **B.10. and B.26.** of this permit.) Upon subsequent fuel oil deliveries, if the vendor's delivery receipt indicates that the sulfur content of the delivered fuel is greater than the sulfur percent established by the previous analysis, a new analysis shall be conducted after the newly delivered fuel has been sufficiently

blended with the existing fuel. The results of this analysis shall be used to calculate a new maximum allowable blend of natural gas and fuel oil ~~prior to burning any of the newly delivered fuel~~. Until such time that the analysis is available, permittee may burn fuel oil provided the maximum allowable blend is calculated based on the greater sulfur content value of the vendor's delivery receipt. If the vendor's delivery receipt indicates that the sulfur content of the delivered fuel is less than the sulfur percent previously established, a new analysis is only necessary if the permittee wishes to adjust the previously established blend of natural gas and fuel oil. For purposes of determining the maximum allowable blend, permittee may use the sulfur dioxide emission factor default value of 0.0006 lb/MMBtu as established in the *Compilation of Air Pollutant Emission Factors* (AP-42) and 40 CFR 75, Appendix D. No natural gas sampling and analysis will be required if permittee elects to use the natural gas sulfur dioxide emission factor default value.
[Rules 62-4.070(3) and 62-296.405(1)(c)3., F.A.C.]

B.12. Nitrogen Oxide. Nitrogen oxide emissions shall not exceed 0.3 pounds per million Btu heat input, as measured by applicable compliance methods.
[Rule 62-296.405(1)(d)3., F.A.C.]

Excess Emissions

B.13. 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.]

B.14. 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.]

B.15. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

{Permitting Note: In accordance with the Acid Rain Phase II requirements, the following continuous monitors are installed on this unit: Gas Fuel Flow, Oil Fuel Flow, NOx and CO_2.}
[Rules 62-296.405(1)(f)1.c. & d., 62-214.320 and 62-214.330, F.A.C.; 40 CFR Part 75 Appendix D, Section 2.1]}

B.16. Sulfur Dioxide. **The permittee elected to demonstrate compliance using fuel sampling and analysis.** This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **B.11. and B.26.** of this permit.
[Rule 62-296.405(1)(f)1.b., F.A.C.]

~~**B.17.** Continuous Emissions Monitoring Requirements. Each owner or operator of an emissions unit subject to Rule 62-296.405(1), F.A.C., shall install, calibrate, operate and maintain a continuous monitoring system for continuously monitoring the pollutants specified in this subsection. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR Part 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800(2), F.A.C., and 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C., for existing and new emissions units provided, however, any alternative procedures (as specified in s. 3.9, 40 CFR Part 51, Appendix P) or special considerations (as specified in s. 6.0, 40 CFR Part 51, Appendix P) shall be incorporated in the Department's air permit for the emissions unit and submitted to the U.S. Environmental Protection Agency as a proposed revision to the State Implementation Plan.~~

~~1. Existing fossil fuel steam generators with more than 250 million BTU per hour heat input and with a capacity factor of greater than 30 percent for the latest year of record or as otherwise documented to the Department by the owner or operator, shall install continuous monitoring systems as set forth in this subparagraph **(see Specific Conditions B.18. & B.19.)**. Any reactivated or previously exempted unit whose operated capacity factor for the previous six months is greater than 30 percent must install continuous monitoring systems as set forth in this subparagraph no later than twelve months following the previous six month period of achieving a capacity factor greater than 30 percent.~~
~~[Rule 62-296.405(1)(f), F.A.C.]~~

~~**B.18.** Nitrogen Oxides. All new emissions units as set forth in Rule 62-296.405(1)(f)1., F.A.C., with more than 1000 million BTU per hour heat input shall, during construction, install continuous monitoring systems for monitoring nitrogen oxides.~~
~~[Rule 62-296.405(1)(f)1.c., F.A.C.]~~

B.19. Nitrogen Oxides. For emission units that are subject to continuous monitoring requirements under 42 U.S.C. sections 7661-7661f or 40 CFR Part 75, compliance with nitrogen oxides emission limits shall be demonstrated based on a 30-day rolling average, except as specifically provided by 40 CFR Parts 60 or 76.
[Rule 62-296.405(1)(e)4., F.A.C.]

~~**B.20.** Oxygen or Carbon Dioxide. A continuous monitoring system shall be installed at each emissions unit, as set forth in Rule 62-296.405(1)(f)1., F.A.C., where measurements of oxygen or carbon dioxide in the flue gas are utilized to convert either sulfur dioxide or nitrogen oxides continuous emission monitoring data to units of the emission limiting standards for proof of compliance as set forth in Rule 62-296.405(1), F.A.C. **The permittee has elected to install a carbon dioxide monitor.**~~
~~[Rule 62-296.405(1)(f)1.d., F.A.C.]~~

B.25. Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedances of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by using fuel sampling and analysis.** See specific conditions **B.11. and B.26.**
[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.401, F.A.C.; and, AO37-242825.]

B.26. The following fuel sampling and analysis protocol shall be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard:

a. Determine and record the as-fired fuel sulfur content, percent by weight, for liquid fuels using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91 to analyze a representative sample of the blended fuel following each fuel delivery.

~~b. Establish and maintain a record of the sulfur content of the "as-fired" natural gas.~~

~~e~~b. Record daily the amount of each fuel fired, ~~the density of each fuel,~~ the heating value (Btu/lb), and the percent sulfur content by weight ~~of each~~ for fuel oil.

~~d~~c. Utilize the information in a.~~,~~ and b. ~~and c.~~, above, and the sulfur dioxide emission factor default value of 0.0006 lb/MMBtu (established by the *Compilation of Air Pollutant Emission Factors* (AP-42) and 40 CFR 75, Appendix D) to calculate the SO_2 emission rate to ensure compliance at all times.

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

Compliance Test Requirements

B.27. 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.]

B.28. **Not Federally Enforceable.** Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

B.29. **Not Federally Enforceable.** Operating Conditions During Testing - Particulate Matter. When required, testing for particulate matter emissions shall be conducted while firing fuel oil at the highest ~~that contains a sulfur content equal to the highest sulfur content used since the last test and the corresponding~~ ratio of fuel oil to natural gas used since the last test ~~that was fired at that time~~.
[Rules 62-4.070(3) and 62-296.405(1)(c)3., F.A.C.]

B.30. 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.]

B.31. 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.

Subsection C. This section addresses the following emissions units.

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

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

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

The following conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

C.1. **Not Federally Enforceable.** Permitted Capacity. The maximum operation heat input rates are as follows:

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

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

C.2. **Not Federally Enforceable.** Emissions Unit Operating Rate Limitation After Testing. See specific condition **C.13.**

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

C.3. **Not Federally Enforceable.** Methods of Operation - Fuels. Only natural gas and/or new No. 2 fuel oil shall be fired in these turbines.
[Rule 62-213.410, F.A.C.]

C.4. Hours of Operation. Combustion Turbine Number 1 may operate 8491 hours per year. Combustion Turbine Number 2 may operate 7071 hours per year. The Permittee shall maintain an operation log available for Department inspection that documents the total hours of operation annually.
[Rule 62-210.200, F.A.C., (PTE) and AO37-242824 specific condition number 3.]

Emission Limitations and Standards

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

C.5. Visible Emissions. Visible emissions from each turbine shall not be equal to or greater than 20 percent opacity.
[Rule 62-296.320(4)(b)1., F.A.C.; and, AO37-242824.]

C.6. **Not federally enforceable.** Sulfur Dioxide - Sulfur Content. The sulfur content of the No. 2 fuel oil shall not exceed 0.4 percent, by weight. See specific condition **C.12.**
[AO37-242824; and, applicant request on initial Title V application received June 14, 1996.]

Excess Emissions

C.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

C.8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

C.9. Not Federally Enforceable. Sulfur Dioxide. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor upon each fuel delivery. See specific conditions **C.6. and C.12.**
[Rule 62-213.440, F.A.C.]

C.10. Determination of Process Variables.

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

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

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

Test Methods and Procedures

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

C.11. Visible emissions. The test method for visible emissions shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

C.12. Not Federally Enforceable. Sulfur Content. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91.
[Rules 62-213.440 and 62-297.440, F.A.C.]

C.13. Not Federally Enforceable. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)b., F.A.C.]

Section IV. Acid Rain Part.

Operated by: City of Tallahassee
ORIS Code: 0688

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

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

E.U. ID No.	Description
-001	Boiler Number 1 - 903 MMBtu/hour
-004	Boiler Number 2 - 2325 MMBtu/hour; 2,500 MMBtu/hr firing 100 percent natural gas

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

a. DEP Form No. 62-210.900(1)(a), dated 07/01/95, received December 20, 1995.

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

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

E.U. ID No.	EPA ID	Year	2000	2001	2002
-001	Boiler 1	SO_2 allowances, under Table 2, 3, or 4 of 40 CFR 73	80*	80*	80*
		NOx limit	**	**	
-004	Boiler 2	SO_2 allowances, under Table 2, 3, or 4 of 40 CFR 73	5476*	5476*	5476*
		NO_x limit	**	**	**

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

** If applicable, by January 1, 1999, this Part will be reopened to add NOx requirements in accordance with the regulations implementing section 407 of the Clean Air Act.

A.3. Comments, notes, and justifications: None.

Appendix E-1, List of Exempt Emissions Units and/or Activities.

City of Tallahassee, Electric Utilities
Arvah B. Hopkins Generating Station

DRAFT Permit No.: 0730003-001-AV
Facility ID No.: 0730003

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Full Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining whether a facility containing such emissions units or activities would be subject to any applicable requirements. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., are also exempt from the permitting requirements of Chapter 62-213, F.A.C., provided such emissions units and activities also meet the exemption criteria of Rule 62-213.430(6)(b), F.A.C. The below listed emissions units and/or activities are hereby exempt pursuant to Rule 62-213.430(6), F.A.C.

Exempt Emissions Related to Steam Generator No. 1

1. Deareator Tank Vents
2. Air Ejectors
3. Oil Vapor Extractors
4. Noncondensable Gas Extractors
5. Seal Oil Vacuum Pumps
6. Lube Oil Tanks (storage)
7. Lube/Fuel Oil Drip Pans
8. Hydrogen Gas Vents
9. Fuel Oil Piping

Exempt Emissions Related to Steam Generator No. ~~1~~2

10. Deareator Tank Vents
11. Air Ejectors
12. Oil Vapor Extractors
13. Noncondensable Gas Extractors
14. Seal Oil Vacuum Pumps
15. Lube Oil Tanks (storage)
16. Lube/Fuel Oil Drip Pans
17. Hydrogen Gas Vents
18. Fuel Oil Piping

Exempt Emissions Related to Combustion Turbine No. 1

19. Diesel Engine (Starter)
20. Diesel Tank (#10)
21. Oil Vapor Extractor
22. Lube Oil Tank
23. Natural Gas Blowdown
24. Fuel Oil Piping

Appendix E-1, Continued.

Exempt Emissions Related to Combustion Turbine No. 2

25. Diesel Engine (Starter)
26. Diesel Tank (#11)
27. Oil Vapor Extractor
28. Lube Oil Tank
29. Natural Gas Blowdown
30. Fuel Oil Piping

Fuel Storage

31. Day Tank (Diesel Tank # 12)
32. Diesel Fuel Dispensing Operation

Emergency Generator

33. Diesel Engine - Exempt per Rule 62-210.300(3)(a)21, F.A.C.
34. Diesel Tank (#13)

Fuel Farm

35. Diesel Tank #1
36. Diesel Tank #2
37. Fuel Oil Tank #3
38. Fuel Oil Tank #4
39. Fuel Oil Piping
40. Fuel Oil Transfer Station #1
41. Fuel Oil Transfer Station #2
42. Diesel Oil Transfer Station
43. Truck Loading/Unloading Station #1 (for items 35 and 36)
44. Truck Loading/Unloading Station #2 (for items 37 and 38)

Fuel Dispensing Operations

~~45. Truck Loading/Unloading (for items 35-41)~~
45. Gasoline Tank
46. Gasoline Pump
47. Diesel Oil Tank
48. Diesel Pump

Organic Liquid Storage

49. Kerosene Tank #7
50. Lube Oil Tank #8
51. Lube Oil Tank #9
52. Diesel Oil Tank Associated with the Hydrant Main

Fugitive VOC Emissions

53. (1-15) Parts Washers - Non-halogenated Solvents
54. (1-12) Space Heaters

55. (2) Fresh Water Cooling Towers

56. Central Vacuum System

Appendix E-1, Continued.

Maintenance Activities

57. Welding - Exempt per Rule 62-210.300(3)(a)16, F.A.C.

Plant Operations

58. Lube Oil Storage Tanks
59. Propane Storage Tanks

Fugitive PM_{10} Emissions

60. Paved Roads
61. Unpaved Roads
62. Heavy Construction Activities
63. Aggregate Handling & Storage

~~Gasoline Engines~~

~~64. Welding Generator - Exempt per Rule 62-210.300(3)(a)21, F.A.C.~~

~~64. (2) Emergency Generators - Exempt per Rule 62-210.300(3)(a)21, F.A.C.~~

Laboratory

61. Laboratory Equipment
62. Chemical Usage
63. Vacuum Pump
64. Laboratory Fume Hoods

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

City of Tallahassee, Electric Utilities
Arvah B. Hopkins Generating Station

DRAFT Permit No.: 0730003-001-AV
Facility ID No.: 0730003

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

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

E.U. ID No.	Brief Description of Emissions Units and/or Activity
~~-xxx~~005	Fugitive VOC Sources - Painting Operations
-xxx	General purpose engines
-yyy	Emergency generators

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

-xxx General purpose internal combustion engines.
Located for use at this source is (1) welding generator, (1) fire pump, (1) portable diesel pump, and (1) portable generator

-yyy Emergency generators.
Located for use at this source are (2) Emergency Generators.

Appendix H-1, Permit History/ID Number Changes

City of Tallahassee
Arvah B. Hopkins Generating Station

DRAFT Perm

Permit History (for tracking purposes):

E.U. ID No	Description	Permit No.	Issue Date	Expiration Date	Extended Date[1,2]	R
-001	Boiler Hopkins #1	AO37-242825	03/08/94	03/01/99		
-002	Combustion Turbine Hopkins Unit #1	AO37-242824	03/08/94	12/31/98		0
-003	Combustion Turbine Hopkins #2	AO37-242824	03/08/94	12/31/98		0
-004	Unit #2 Boiler	PA74-03D	05/20/75			0

(if applicable) ID Number Changes (for tracking purposes):

From: **Facility ID No.**: 10TLH3700003

To: **Facility ID No.**: 0730003

Notes:
1 - AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
2 - AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.
{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

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

City of Tallahassee, Electric Utilities Department
Arvah B. Hopkins Generating Station

DRAFT Permit No.: 0730003-001-AV
Facility ID No.: 0730003

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

E. U. ID No.	Brief Description	Pollutant Name	Fuel(s)	Hours/ Year	Allowable Emissions [1] Standard(s)	lbs./hour	TPY	Equivalent Emissions* lbs./hour	TPY	Regulatory Citation(s)	See Permit Condition(s)
-001	Boiler #1 (903 MMBtu/hour) **Acid Rain Phase II Unit**	VE	No. 2 - No. 6 F.O.[2]	8760	20%; 40% -1 two min. period/hr.[3]			N/A	N/A	62-296.405(1)(a)	A.5. & A.6.
			Natural Gas	8760	20%; 40% -1 two min. period/hr.[3]			N/A	N/A	62-296.405(1)(a)	A.5. & A.6.
		PM	No. 2 - No. 6 F.O.[2]	8760	0.1 lb/MMBtu	N/A	N/A	90.3	395.51	62-296.405(1)(b)	A.7.
			Natural Gas	8760	0.1 lb/MMBtu	N/A	N/A	90.3	395.51	62-296.405(1)(b)	A.7.
		PM - SB	No. 2 - No. 6 F.O.[2]	3 hr/day	0.3 lb/MMBtu	N/A	N/A	270.9	~~494.39~~ 148.32	62-210.700(3)	A.8.
		**	Natural Gas	3 hr/day	0.3 lb/MMBtu	N/A	N/A	270.9	~~494.39~~ 148.32	62-210.700(3)	A.8.
	(75 MW Turbine-generator)	SO_2	No. 2 - No. 6 F.O.[2]	8760	0.75 lb/MMBtu[4]	N/A	N/A	677.25	2,966.35	Applicant Request	A.10.
	(each unit)		Natural Gas	8760	~~N/A~~ 0.75 lb/MMBtu[4]	N/A	N/A	N/A	N/A	~~62-296.405(1)(c)~~ Applicant Request	A.10.
-004	Boiler #2 (2,325 MMBtu/hour; 2,500 MMBtu/hr - 100% gas) **Acid Rain Phase II Unit**	VE	No. 2 - No. 6 F.O.[2]	8760	20%; 40% -1 two min. period/hr.[3]			N/A	N/A	62-296.405(1)(a)	B.5. & B.6.
			Natural Gas	8760	20%; 40% -1 two min. period/hr.[3]			N/A	N/A	62-296.405(1)(a)	B.5. & B.6.
		PM	No. 2 - No. 6 F.O.[2]	8760	0.1 lb/MMBtu	N/A	N/A	232.5	1,018.35	62-296.405(1)(b)	B.7.
			Natural Gas	8760	0.1 lb/MMBtu	N/A	N/A	~~232.5~~ 250	~~1,018.35~~ 1,095	62-296.405(1)(b)	B.7.
		PM - SB	No. 2 - No. 6 F.O.[2]	3 hr/day	0.3 lb/MMBtu	N/A	N/A	697.5	~~1272.94~~ 381.88	62-2010.700(3)	B.8.
		**	Natural Gas	3 hr/day	0.3 lb/MMBtu	N/A	N/A	~~697.5~~ 750	~~1,272.94~~ 410.63	62-2010.700(3)	B.8.
	(238 MW Turbine-generator)	SO_2	No. 2 - No. 6 F.O.[2]	8760	1.4 lb/MMBtu[4]	N/A	N/A	3,255.0	14,256.90	~~62-296.405(1)(c)1.h.~~ Applicant Request	B.10.
			Natural Gas	8760	~~N/A~~ 1.4 lb/MMBtu[4]	N/A	N/A	N/A	N/A	~~62-296.405(1)(c)~~ Applicant Request	B.10.
		NO_X	No. 2 - No. 6 F.O.[2]	8760	0.3 lb/MMBtu[5]	N/A	N/A	697.5	3,055.05	62-296.405(1)(d)3	B.12
			Natural Gas	8760	0.3 lb/MMBtu[5]	N/A	N/A	750	3,285	62-296.405(1)(d)3	B.12
-002	Combustion Turbine No. 1 (228 MMBtu/hour)	VE	No. 2 F.O.	8491	Less than 20%	N/A	N/A	N/A	N/A	62-296.320(4)(b)	C.5.
			Natural Gas	8491	Less than 20%	N/A	N/A	N/A	N/A	62-296.320(4)(b)	C.5.
		SO_2	No. 2 F.O.	8491	0.4% sulfur	N/A	N/A	97.4[6]	~~340.6~~ 413.66[6]	AO37-242824	C.6.
			Natural Gas	8491	N/A	N/A	N/A	N/A	N/A	N/A	N/A
-003	Combustion Turbine No. 2 (~~228~~446 MMBtu/hour)	VE	No. 2 F.O.	7071	Less than 20%	N/A	N/A	N/A	N/A	62-296.320(4)(b)	C.5.
			Natural Gas	7071	N/A	N/A	N/A	N/A	N/A	62-296.320(4)(b)	C.5.
		SO2	No. 2 F.O.	7071	0.4% sulfur	N/A	N/A	~~N/A~~ 190.6[6]	~~N/A~~ 673.86[6]	AO37-242824	C.6.
			Natural Gas	7071	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

* The "Equivalent Emissions" listed are for informational purposes. "Equivalent Emissions" represents the potentially greatest amount of emissions possible based on permit limits.

** PM - SB refers to "soot blowing" and "load change".

[1] - Including those emissions allowed pursuant to Rule 62-210.700(1),(2), F.A.C.

[2] - Fuels include No. 2 through No. 6 fuel oils, on-spec used oil, and boiler chemical cleaning wastes.

[3] - 60% - 3 hr/day for sootblowing and load change.

[4] - Sulfur dioxide limit applies to all fuels and any co-firing of those fuels.

[5] - Compliance with NOx emission limit based on 30-day rolling average pursuant to Rule 62-296.405(1)(e)4, F.A.C.

[6] - Assumes a fuel oil heat content of 18,720 Btu/lb.

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Table 2-1, Summary of Compliance Requirements

City of Tallahassee, Electric Utilities
Arvah B. Hopkins Generating Station

DRAFT Permit No.: 0730003-001-AV
Facility ID No.: 0730003

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	Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date [2]	Min. Compliance Test Duration	CMS [1]	See Permit Condition(s)
-001	Boiler #1	VE	No. 2 - No. 6 F.O.	DEP method 9	Annually [3]	7/1 - 9/30	60 Minutes	No	A.17., A.18., A.23, A.26., A.29.
	-903 MMBtu/hour		Natural Gas	DEP method 9	N/A	7/1 - 9/30	60 Minutes	No	
	-Acid Rain Phase II Unit	PM	No. 2 - No. 6 F.O.	17, 5, 5B or 5F	Annually [3]	7/1 - 9/30	~~60 Minutes~~ Ave. based on three 1-hour runs	No	A.19., A.22. - 28., A.30.
	-75 MW generator		Natural Gas	17, 5, 5B or 5F	~~Annually [3]~~ N/A	7/1 - 9/30	~~60 Minutes~~ Ave. based on three 1-hour runs	No	
		SO_2	No. 2 - No. 6 F.O.	Fuel Sampling & Analysis				No	A.11., A.15., A.20., A.21.
004	Boiler #2	VE	No. 2 - No. 6 F.O.	DEP method 9	Annually	7/1 - 9/30	60 Minutes	No	B.22., B.23., B.28., B.31., B.34.
	-2,325 MMBtu/hour		Natural Gas	DEP method 9	N/A	7/1 - 9/30	60 Minutes	No	
	-2,500 MMBtu/hour on 100% nat. gas	PM	No. 2 - No. 6 F.O.	17, 5, 5B or 5F	Annually [3]	7/1 - 9/30	~~60 Minutes~~ Ave. based on three 1-hour runs	No	B.24., B.27. - 33., B.35.
	-Acid Rain Phase II Unit		Natural Gas	17, 5, 5B or 5F	~~Annually [3]~~ N/A	7/1 - 9/30	~~60 Minutes~~ Ave. based on three 1-hour runs	No	
	-238 MW generator	SO_2	No. 2 - No. 6 F.O.	Fuel sampling & analysis per Acid Rain Phase II commitment				No	B.11., B.16., B.25., B.26.
		NOx	No. 2 - No. 6 F.O	30 day rolling avg.	Continuous	N/A	N/A	Yes	B.17., B.18., B.19.,
			Natural Gas	30 day rolling avg.	Continuous	N/A	N/A	Yes	
-002	Combustion Turbine No. 1	VE	No. 2 F.O.	EPA Method 9	Annually[4]	7/1 - 9/30	30 Minutes	No	C.11., C.13. - 16.
-003	Combustion Turbine No. 2		Natural Gas	EPA Method 9	~~Annually~~[4] N/A	7/1 - 9/30	30 Minutes	No	
		SO_2	No. 2 F.O.	Fuel Sampling & Analysis Provided by Vendor				No	C.9. & C.12.

Notes:

[1] CMS [=] continuous monitoring system.

[2] Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.

[3] Test not required in years that fuel oil is fired less than 400 hours. PM testing is not required prior to permit renewal if oil is fire less than 400 hours during the prior fiscal year.

[4] If a combustion turbine is operated less than 400 hours per year, test is only required once every 5 years, during the year prior to permit renewal.

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Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   Robert E. McGarrah, Production Superintendent

2. Owner/Authorized Representative or Responsible Official Mailing Address:

   Organization/Firm: **City of Tallahassee, Electric Utility**
   Street Address: **2602 Jackson Bluff Road**
   City: **Tallahassee** State: **Florida** Zip Code: **32304**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: **(904) 891-5534** Fax: **(904) 891-5162**

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 unit.*

   Signature — Date: **June 13, 1997**

* Attach letter of authorization if not currently on file.

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, 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 this application 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 this application, based solely upon the materials, information and calculations submitted with this application.

*If the purpose of this application is to obtain a Title V source air operation permit (check here [**X**] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ ] if so), I further certify that the engineering features of each such emissions unit described in this application have been ~~designed or~~ examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Daniel J. Geiger
Signature

6-16-97
Date

(seal)

Attach any exception to certification statement.

As part of the Title V application development, the City of Tallahassee reviewed the potential sources of unconfined particulate emissions at its Hopkins Generating Station. The intent of the review was to ensure that reasonable precautions were in place to prevent and/or control these potential particulate emissions. The potential sources which were identified included the following:

1. Concrete mixing;
2. Abrasive blasting
3. Aggregate handling and storage;
4. Heavy construction activities;
5. Driving on paved/unpaved roads; and
6. Spray application of surface coatings.

Based on the City of Tallahassee's review of these potential sources, the following reasonable precautions have been established to control unconfined emissions of particulate matter:

- The portable concrete mixer is operated on an as-needed basis. Reasonable precautions include enclosing the activity wherever practical.

- The abrasive blasting activities are associated with normal maintenance and corrosion control activities. These activities are also enclosed wherever practical.

- ~~The aggregate storage piles occur on a temporary basis and are associated with miscellaneous construction activities. Water is applied on an as needed basis to control unconfined emissions from the handling and storage of aggregate materials and the related construction activities.~~

- Unconfined emissions associated with the limited on-site traffic are controlled through limiting vehicle speeds and unnecessary traffic within the plant grounds~~, and application of water as needed by the use of hoses (manual operation).~~

- The spray applications of surface coatings are associated with normal maintenance and corrosion activities. These activities are enclosed whenever practical.

CITY OF TALLAHASSEE ELECTRIC DEPARTMENT
EMISSIONS UNIT INVENTORY
SOURCE - HOPKINS GENERATING STATION

Unit No.	Emissions Unit	Emissions Unit Description	Regulatory [1] [2] Classification	Emission Unit Status
1	Steam Generator No. 1	Steam Generator - 903 mmBtu/hr	Regulated -Permit # AO37-242825	Existing
1a	De-aerator Vents	De-aerator Vents	Exempted Under Rule 62-213.430(6)	Existing
1b	Air Ejectors	Air Ejectors	Exempted Under Rule 62-213.430(6)	Existing
1c	Oil Vapor Extractors	Oil Vapor Extractors	Exempted Under Rule 62-213.430(6)	Existing
1d	Noncondensable Gas	Noncondensable Gas Extractors	Exempted Under Rule 62-213.430(6)	Existing
1e	Seal Oil Vacuum Pumps	Seal Oil Vacuum Pumps	Exempted Under Rule 62-213.430(6)	Existing
1f	Lube Oil Tanks	Lube Oil Tanks	Exempted Under Rule 62-213.430(6)	Existing
1g	Lube/Fuel Oil Drip Pans	Lube/Fuel Oil Drip Pans	Exempted Under Rule 62-213.430(6)	Existing
1h	Hydrogen Gas Vents	Hydrogen Gas Vents	Exempted Under Rule 62-213.430(6)	Existing
1i	Fuel Oil Piping	Fuel Oil Piping	Exempted Under Rule 62-213.430(6)	Existing
2	Steam Generator No. 2	Steam Generator - 2500 mmBtu/hr	Regulated -Site Certification PA 74-03D	Existing
2a	De-aerator Vents	De-aerator Vents	Exempted Under Rule 62-213.430(6)	Existing
2b	Air Ejectors	Air Ejectors	Exempted Under Rule 62-213.430(6)	Existing
2c	Noncondensable Gas	Noncondensable Gas Extractors	Exempted Under Rule 62-213.430(6)	Existing
2d	Lube Oil Tanks	Lube Oil Tanks	Exempted Under Rule 62-213.430(6)	Existing
2e	Oil Vapor Extractors	Oil Vapor Extractors	Exempted Under Rule 62-213.430(6)	Existing
2f	Seal Oil Vacuum Pumps	Seal Oil Vacuum Pumps	Exempted Under Rule 62-213.430(6)	Existing
2g	Lube/Fuel Oil Drip Pans	Lube/Fuel Oil Drip Pans	Exempted Under Rule 62-213.430(6)	Existing
2h	Hydrogen Gas Vents	Hydrogen Gas Vents	Exempted Under Rule 62-213.430(6)	Existing
2i	Fuel Oil Piping	Fuel Oil Piping	Exempted Under Rule 62-213.430(6)	Existing
3	CT #1	Combustion Turbine -228 mmBtu/hr	Regulated -Permit # AO37-242824	Existing
3a	Diesel Engine	Diesel Engine Starter	Exempted Under Rule 62-210.300(3)(a)21	Existing
3b	Diesel Tank	Diesel Tank #10	Exempted Under Rule 62-213.430(6)	Existing
3c	Oil Vapor Extractor	Oil Vapor Extractor	Exempted Under Rule 62-213.430(6)	Existing
3d	Lube Oil Tank	Lube Oil Tank	Exempted Under Rule 62-213.430(6)	Existing
3e	Natural Gas Blowdown	Natural Gas Blowdown	Exempted Under Rule 62-213.430(6)	Existing
3f	Fuel Oil Piping	Fuel Oil Piping	Exempted Under Rule 62-213.430(6)	Existing
4	CT #2	Combustion Turbine - 446 mmBtu/hr	Regulated -Permit # AO37-242824	Existing
4a	Diesel Engine	Diesel Engine Starter	Exempted Under Rule 62-210.300(3)(a)21	Existing
4b	Diesel Tank	Diesel Tank #11	Exempted Under Rule 62-213.430(6)	Existing

CITY OF TALLAHASSEE ELECTRIC DEPARTMENT
EMISSIONS UNIT INVENTORY
SOURCE - HOPKINS GENERATING STATION

Unit No.	Emissions Unit	Emissions Unit Description	Regulatory [1] [2] Classification	Emission Unit Status
4c	Oil Vapor Extractor	Oil Vapor Extractor	Exempted Under Rule 62-213.430(6)	Existing
4d	Lube Oil Tank	Lube Oil Tank	Exempted Under Rule 62-213.430(6)	Existing
4e	Natural Gas Blowdown	Natural Gas Blowdown	Exempted Under Rule 62-213.430(6)	Existing
4f	Fuel Oil Piping	Fuel Oil Piping	Exempted Under Rule 62-213.430(6)	Existing
5	Day Tank	Diesel Tank #12	Exempted Under Rule 62-213.430(6)	Existing
5a	Fuel Dispensing Operation	Diesel Fuel	Unregulated - Proposed exemption under Rules 62-4.040 & 62-213.430(6)	Existing
6	Diesel Engine	Emergency Generator	Exempted Under Rule 62-210.300(3)(a)21	Existing
6a	Diesel Tank	Diesel Tank #13	Exempted Under Rule 62-213.430(6)	Existing
6b	Diesel Driven Fire Pump	Diesel Engine	Exempted Under Rule 62-210.300(3)(a)21	New
6c	Portable Diesel Pump	Diesel Engine	Exempted Under Rule 62-210.300(3)(a)21	Existing
6d	Portable Generator	Emergency Generator	Exempted Under Rule 62-210.300(3)(a)21	Existing
7	Fuel Farm	Diesel Tank #1	Exempted Under Rule 62-213.430(6)	Existing
7a	Fuel Farm	Diesel Tank #2	Exempted Under Rule 62-213.430(6)	Existing
7b	Fuel Farm	Fuel Oil Tank #3	Exempted Under Rule 62-213.430(6)	Existing
7c	Fuel Farm	Fuel Oil Tank #4	Exempted Under Rule 62-213.430(6)	Existing
7d	Fuel Farm	Fuel Oil Piping	Exempted Under Rule 62-213.430(6)	Existing
7e	Fuel Farm	Fuel Oil Transfer Station #1	Exempted Under Rule 62-213.430(6)	Existing
7f	Fuel Farm	Fuel Oil Transfer Station #2	Exempted Under Rule 62-213.430(6)	Existing
7g	Fuel Dispensing Operation	Truck loading/unloading Station #1 (for items 7 and 7a)	Unregulated - Proposed exemption under Rules 62-4.040 & 62-213.430(6)	Existing
7h	Fuel Dispensing Operation	Truck loading/unloading Station #2 (for items 7b and 7c)	Unregulated - Proposed exemption under Rules 62-4.040 & 62-213.430(6)	Existing
7i	Fuel Farm	Diesel Oil Transfer Station	Unregulated - Proposed exemption under Rules 62-4.040 & 62-213.430(6)	Existing
8	Fuel Dispensing Operation	Gasoline Tank	Exempted Under Rule 62-213.430(6)	Existing
8a	Fuel Dispensing Operation	Gasoline Pump	Unregulated - Proposed exemption under Rules 62-4.040 & 62-213.430(6)	Existing
9	Fuel Dispensing Operation	Diesel Tank	Exempted Under Rule 62-213.430(6)	Existing
9a	Fuel Dispensing Operation	Diesel Pump	Unregulated - Proposed exemption under Rules 62-4.040 & 62-213.430(6)	Existing
10	Organic Liquid Storage	Kerosene Tank #7	Exempted Under Rule 62-213.430(6)	Existing
10a	Organic Liquid Storage	Lube Oil Tank #8	Exempted Under Rule 62-213.430(6)	Existing

CITY OF TALLAHASSEE ELECTRIC DEPARTMENT
EMISSIONS UNIT INVENTORY
SOURCE - HOPKINS GENERATING STATION

Unit No:	Emissions Unit	Emissions Unit Description	Regulatory [1] [2] Classification	Emission Unit Status
10b	Organic Liquid Storage	Lube Oil Tank #9	Exempted Under Rule 62-213.430(6)	Existing
10b	Diesel Oil Tank	Organic Liquid Storage	Exempted Under Rule 62-213.430(6)	New
11	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11a	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11b	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11c	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11d	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11e	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11f	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11g	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11h	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11i	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11j	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11k	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11l	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11m	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
11n	Solvent Cleaning	Parts Washer - Nonhalogenated	Exempted Under Rule 62-213.430(6)	Existing
12	Cooling Tower	Fresh Water Cooling Tower	Exempted Under Rule 62-213.430(6)	Existing
13	Cooling Tower	Fresh Water Cooling Tower	Exempted Under Rule 62-213.430(6)	Existing
14	Central Vacuum System	Central Vacuum System	Exempted Under Rule 62-213.430(6)	Existing
15	Maintenance Activities	Welding	Exempted Under Rule 62-210.300(3)(a)16	Existing
16a	Plant Operations	Lube Oil Storage Tanks	Exempted Under Rule 62-213.430(6)	Existing
16b	Plant Operations	Propane Storage Tanks	Exempted Under Rule 62-213.430(6)	Existing
17	Fugitive Dust	Paved Roads	Exempted Under Rule 62-213.430(6)	Existing
17a	Fugitive Dust	Unpaved Roads	Exempted Under Rule 62-213.430(6)	Existing
17b	Fugitive Dust	Heavy Construction Activities	Unregulated	Existing
17c	Fugitive Dust	Aggregate Handling & Storage	Exempted Under Rule 62-213.430(6)	Existing

CITY OF TALLAHASSEE ELECTRIC DEPARTMENT
EMISSIONS UNIT INVENTORY
SOURCE - HOPKINS GENERATING STATION

Unit No.	Emissions Unit	Emissions Unit Description	Regulatory [1] [2] Classification	Emission Unit Status
18	Gasoline Engine	Welding Generator	Exempted Under Rule 62-210.300(3)(a)21	Existing
18a	Gasoline Engine	Emergency Generator	Exempted Under Rule 62-210.300(3)(a)21	Existing
18b	Gasoline Engine	Emergency Generator	Exempted Under Rule 62-210.300(3)(a)21	Existing
19	Laboratory	Laboratory Fume Hoods	Exempted Under Rule 62-213.430(6)	Existing
19a	Laboratory	Laboratory Equipment	Exempted Under Rule 62-213.430(6)	Existing
19b	Laboratory	Chemical Usage	Exempted Under Rule 62-213.430(6)	Existing
19c	Laboratory	Vacuum Pumps	Exempted Under Rule 62-213.430(6)	Existing
20	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20a	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20b	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20c	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20d	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20e	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20f	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20g	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20h	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20I	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20j	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing
20k	Space Heater	Space Heater	Exempted Under Rule 62-213.430(6)	Existing

[1]Note: The designation "~~proposed~~ exempted~~ion~~ under ~~criteria in~~ Rule 62-213.430(6)" indicates that an exemption is requested for this unit pursuant to Rule 62-213.420(3), F.A.C.~~, in accordance with the provisions of Rule 62-213.430(6), F.A.C.~~

[2]Note: All trivial emissions units and activities are omitted per FDEP 3/15/96 guidance memo. In addition, all mobile sources are omitted as outside the scope of Title V stationary source permitting.

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU05**
2. Emission Point Type Code: [**X**] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **This emission point, EU05, represents the exhaust for Boiler No. 1.**
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [**X**] V [ ] W
6. Stack Height: **200** feet
7. Exit Diameter: **11.0** feet
8. Exit Temperature: **260 - 305** F
9. Actual Volumetric Flow Rate: **223,755** acfm

E. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **EU06**
2. Emission Point Type Code: [**X**] 1 [ ] 2 [ ] 3 [ ] 4
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **This emission point, EU06, represents the exhaust for Boiler No. 2.**
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:
5. Discharge Type Code: [ ] D [ ] F [ ] H [ ] P [ ] R [**X**] V [ ] W
6. Stack Height: **250** feet
7. Exit Diameter: **14.0** feet
8. Exit Temperature: **220 - 305** F

Emissions Unit Information Section 5 of 6

Segment Description and Rate: Segment 6 of 6

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Boiler Chemical Cleaning Waste**
2. Source Classification Code (SCC): **N/A**
3. SCC Units: **Gallons**
4. Maximum Hourly Rate: **3,000** | 5. Maximum Annual Rate: **N/A**
6. Estimated Annual Activity Factor:
7. Maximum Percent Sulfur: ***See Field 10** | 8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **N/A**
10. Segment Comment (limit to 200 characters): **Maximum Hourly and Annual Rates based on one single boiler cleaning per year op.** ***This segment is being requested pursuant to FDEP Guidance No. DARM-SS/CE-07. Negligible amounts of sulfur, if any at all, would be expected in the cleaning waste.** **N/A = Not Applicable. Neither a Source Classification Code nor a heat content is attributable to boiler chemical cleaning waste. The maximum annual rate is indeterminable due to variability dependent on the specific needs for the boiler.**

Emissions Unit Information Section 6 of 6

Segment Description and Rate: Segment 6 of 6

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Boiler Chemical Cleaning Waste**	
2. Source Classification Code (SCC): **N/A**	
3. SCC Units: **Gallons**	
4. Maximum Hourly Rate: **3,000**	5. Maximum Annual Rate: **N/A**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: ***See Field 10**	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: **N/A**	
10. Segment Comment (limit to 200 characters): **Maximum Hourly and Annual Rates based on one single boiler cleaning per year op.** ***This segment is being requested pursuant to FDEP Guidance No. DARM-SS/CE-07. Negligible amounts of sulfur, if any at all, would be expected in the cleaning waste.** **N/A = Not Applicable. Neither a Source Classification Code nor a heat content is attributable to boiler chemical cleaning waste. The maximum annual rate is indeterminable due to variability dependent on the specific needs for the boiler.**	

CITY OF TALLAHASSEE

CITY HALL
300 S. ADAMS ST.
TALLAHASSEE, FL
32301-1731
904/891-8100
TDD 1-800/955-8771

RON WEAVER
Mayor
SCOTT MADDOX
Mayor Pro Tem

JOHN PAUL BAILEY
Commissioner
DEBBIE LIGHTSEY
Commissioner
STEVE MEISBURG
Commissioner

STEVEN C. BURKETT
City Manager
ROBERT B. INZER
City Treasurer-Clerk

JAMES R. ENGLISH
City Attorney
RICARDO FERNANDEZ
City Auditor

February 21, 1997

CERTIFIED MAIL P 230 286 993

Mr. John C. Brown, Jr., P.E.
Air Permitting and Standards Administrator
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Additional Information Regarding Initial Title V Permit Application
File No.: 0730003-001-AV
Arvah B. Hopkins Generating Station, Leon County

Dear Mr. Brown:

On November 25, 1996, the City of Tallahassee (the City) received a letter, dated November 18, 1996, from your office indicating that the Title V Permit Application for the Arvah B. Hopkins Generating Station was received in a timely manner (June 14, 1996) and has been deemed complete. The November 18, 1996 letter also requests additional information regarding the referenced permit application. This letter is submitted as a response to the information requested.

In response to the first item noted in your November 18, 1996, letter requesting additional information, the City of Tallahassee has reviewed the fugitive VOC emissions section submitted in the Arvah B. Hopkins Generating Station Title V Permit Application and has determined that the fugitive VOC emissions section is correct as originally submitted. Although the fugitive VOC emissions section appears to be a duplication of the fugitive VOC emissions section in the Sam O. Purdom Generating Station permit application, there are some minor differences. One example of the differences includes the absence of barge unloading under the general emissions unit information section of the Arvah B. Hopkins application.

The second item noted in your November 18, 1996, letter requests that the City provide manufacturers rated steam output for boiler number 2 in the emissions unit description section. Attached is a revised emission unit description that includes the nominal steam flow for boiler number 2. The correction is highlighted with underscoring. The attached revised emission unit description replaces the emission unit description included in the original application.

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While correcting the emission unit description section, the City of Tallahassee also noted an error in units applied to a Site Certification limit reference. The sulfur dioxide emission limit in the Site Certification is 1.4 lb/mmBtu rather than the 1.4 mmBtu/hr limit depicted in the ninth line of the emission unit description for boiler number 2. This correction is highlighted with underscoring in the attached revised emission unit description.

If you have any questions regarding the information contained in this letter, please feel free to contact me at (904)891-5535.

Sincerely,

R. E. McGarrah
Superintendent, Production
Responsible Official

REM/kb

Attachments

cc: Kevin Wailes, COT
Gordon King, COT
Marty Black, COT
Jennette Curtis, COT

2/25/97 Ed Middlesworth
Jonathan Holtom

FOSTER WHEELER ENVIRONMENTAL CORPORATION
CALCULATION SHEET - MATHCAD 5.0+

By: D. Hackel
Date: 08/19/94

Ck'd By: D. Graziani, P.E.
Date: 08/26/94

Rv'd: 02/19/97

Client: City of Tallahassee
OFS No: 1000.4015.0027

Sheet No.: 1 of 2
Calc. No.: 960425DH04

Emission Unit Description:
The emissions unit is a Babcock & Wilcox steam generator designated Boiler No. 2. The unit is currently operating under Conditions of Certification (PA74-03D) issued by the FDEP. Construction of the unit pre-dated the PSD regulations but is still considered as an increment consuming unit. The unit is capable of firing residual fuel oil, on-spec used oil, natural gas, any of the lighter fuel oils (i.e., fuel oil Nos. 5, 4, ..)or any combination of these fuels. The maximum heat input rate required to meet maximum production of the boiler is 2500 mmBtu/hr. This heat input rate applies to the firing of natural gas and any mixture of natural gas with other fuels. The maximum heat input rate when firing 100% fuel oil is 2325 mmBtu/hr based on SO2 AAQS and PSD modeling analyses completed by the City of Tallahassee in August, 1992 that correspond with the 1.4 lb/mmBtu SO2 limit indicated in the Site Ceritification. The unit is currently rated for a nominal 238 MW and 1,619,000 lb/hr steam. The modified conditions of certification allow continuous operation with restrictions on PM (0.1 lb/mmBtu), and SO2 (1.4 lb/mmBtu). The federally enforceable emission limitations established through the SIP are the same for PM but different for SO2 which is set at 1.87 lbs/mmBtu, and include VE limits (20% & excess emissions), and a nitrogen oxide emission limitation (0.3 lb/mmBtu).

References:
No. 1 - Conditions of Certification PA74-03D
No. 2 -FDEP Rules 62-210.700(1), 62-296.405(1)(a),(b),(c),1h(d)3

Operating Parameters

Annual Hours Of Operation (hrs/yr) AHOP := 8760

Maximum Heat Input Rate - Nat.Gas (& mixtures) (mmBtu/hr) (lower heating value) MHR1 := 2500

Maximum Heat Input Rate - Fuel Oil (mmBtu/hr) (lower heating value) MHR2 := 2325

Fuel Oil Heat Content (Btu/Gal) FOHC := 150000

Fuel Oil Sulfur Content (%wt) FOSC := 1.4

Natural Gas Heat Content (Btu/CF) NGHC := 1000

Calculated Fuel Oil Usage Rate (kgal/hr)

$$FOUR := MHR2 \cdot \frac{10^6}{FOHC \cdot 1000} \qquad FOUR = 15.5$$

Calculated Natural Gas Usage Rate (mmCF/hr)

$$NGUR := MHR1 \cdot \frac{10^6}{NGHC \cdot 10^6} \qquad NGUR = 2.5$$

FOSTER WHEELER ENVIRONMENTAL CORPORATION
CALCULATION SHEET - MATHCAD 5.0+

By: D. Hackel
Date: 08/19/94

Client: City of Tallahassee
OFS No: 1000.4015.0027

Ck'd By: D. Graziani, P.E.
Date: 08/26/94

Sheet No.: 2 of 2
Calc. No.: 960425DH04

Rv'd: 04/25/96

Emission Estimates

The following emission estimates are provided as required by Rules 62-213.420(3)(c)1, 2, 3 and 4, FAC. The emission estimates are based on aliowable emission limitations as specified by Rule or permit condition. The emission estimates provide hourly rates (lbs/hr) denoted with a "H" and annual emission rates (tons/year) denoted with an "A". Allowable emission rates are expressed in units of lb/mmBtu and designated ER (eg., ERSO2 = 1.4 lb/mmBtu).

Emission Estimates - Segment No. 1 (Natural Gas Firing)

Nitroge Oxides (NOX) - (Reference No. 2)

ERNOX := 0.3

HNOX := MHR1·ERNOX HNOX =750

$$ANOX := HNOX \cdot \frac{AHOP}{2000} \qquad ANOX = 3.29 \cdot 10^{3}$$

Emission Estimates - Segment No. 2 (Fuel Oil Firing)

Particulate Matter (PM) - (References No. 1)

ERPM := 0.1

HPM := MHR2·ERPM HPM =232.5

$$APM := HPM \cdot \frac{AHOP}{2000} \qquad APM = 1.02 \cdot 10^{3}$$

Sulfur Dioxide (SO2) - Existing Operating Permit (Reference No. 1)

ERSO2 := 1.4

HSO2 := ERSO2·MHR2 $HSO2 = 3.3 \cdot 10^{3}$

$$ASO2 := HSO2 \cdot \frac{AHOP}{2000} \qquad ASO2 = 1.43 \cdot 10^{4}$$

Scott file

CITY OF TALLAHASSEE

300 S. ADAMS ST.
TALLAHASSEE, FL
32301-1731
850/891-0010
TDD 1-800/955-8771
talgov.com

Certified Mail: 70010360000207702223

RECEIVED
JUN 07 2002
BUREAU OF AIR REGULATION

June 5, 2002

Mr. Clair Fancy, Chief
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Mail Station 5505
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

The City of Tallahassee (City) is proposing to utilize a fuel additive at the Hopkins Power Plant to reduce opacity and NOx when burning fuel oil. Fuel additives are typically magnesium oxide, hydroxide or sulfonate, or calcium nitrate. The City will be using a calcium nitrate fuel additive that has properties that are very similar to those found in our permitted No. 6 fuel oil. The ratio of fuel oil to additive will be 1500/1 (~10gallons/hr).

Because this is an "insignificant activity" we will include it in our Title V renewal application which we will be submitting on or before July 5th of this year.

We will begin using this fuel additive on June 17, 2002 unless we hear otherwise from you.

Sincerely,

Jennette Curtis
Environmental Director

JC/eh

cc: Buck Oven, DEP, Sitting Coordinator
Scott Sheplak, DEP, Professional Engineer Administrator
Rob McGarrah, COT, Production Superintendent
Triveni Singh, COT, Hopkins Plant Supervisor

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