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City Treasurer-Clerk

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City Attorney  
SAM M. McCALL  
City Auditor

July 1, 2002

**HAND DELIVERED**

Scott Sheplak  
Professional Engineer Administrator  
Division of Air Resource Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road MS 5500  
Tallahassee, Florida 32399-2400

RECEIVED

JUL 01 2002

BUREAU OF AIR REGULATION

Re: Title V Permit Application – *Renewal*  
Arvah B. Hopkins Generating Station (Facility ID 0730003)

Dear Mr. Sheplak:

Please find enclosed four (4) copies of an *Application for Air Permit – Title V Source* for the City of Tallahassee Arvah B. Hopkins Generating Station. The renewal application is submitted more than 180 days in advance of the expiration of current Operating Permit No. 0730003-001-AV, as required by Rule 62-4.090, Florida Administrative Code (F.A.C.).

The renewal application was completed on the form provided by the Florida Department of Environmental Protection and adopted in Rule 62-210.900(1), F.A.C. The renewal application is signed and sealed by a Licensed Professional Engineer and contains my original signature as the Primary Responsible Official.

If you have any questions regarding the attached application, please do not hesitate to contact either myself at (850) 891-5534 or Ms. Jennette Curtis, Director of Environmental Resources, at (850) 891-8850.

Sincerely,

Robert E. McGarrah  
Manager of Power Production

Enclosures

cc: Jennette Curtis  
Triveni Singh

*An All-America City*



# Department of Environmental Protection

Division of Air Resource Management

RECEIVED

JUL 01 2002

## RESPONSIBLE OFFICIAL NOTIFICATION FORM

BUREAU OF AIR REGULATION

Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

### Identification of Facility

1. Facility Owner/Company Name: <b>City of Tallahassee</b>	
2. Site Name: <b>Arvah B. Hopkins Generating Station</b>	3. County: <b>Leon</b>
4. Title V Air Operation Permit/Project No. (leave blank for initial Title V applications): <b>0730003-001-AV</b>	

### Notification Type (Check one or more)

<input type="checkbox"/>	<b>INITIAL:</b>	Notification of responsible officials for an initial Title V application.
<input checked="" type="checkbox"/>	<b>RENEWAL:</b>	Notification of responsible officials for a renewal Title V application.
<input checked="" type="checkbox"/>	<b>CHANGE:</b>	Notification of change in responsible official(s). Effective date of change in responsible official(s) <u>Upon Effective Date of</u> <u>Renewal Permit</u>

### Primary Responsible Official

1. Name and Position Title of Responsible Official: <b>Robert E. McGarrah, Manager of Power Production</b>		
2. Responsible Official Mailing Address: Organization/Firm: <b>City of Tallahassee</b> Street Address: <b>2602 Jackson Bluff Road</b> City: <b>Tallahassee</b> State: <b>Florida</b> Zip Code: <b>32304</b>		
3. Responsible Official Telephone Numbers: Telephone: <b>(850) 891 - 5534</b> Fax: <b>(850) 891 - 5162</b>		

4. Responsible Official Qualification (*Check one or more of the following options, as applicable*):

☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

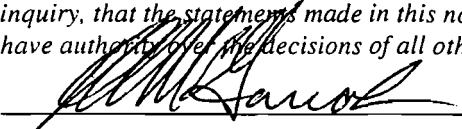
☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

☒ The designated representative at an Acid Rain source.

---

5. Responsible Official Statement:

*I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.*

 \_\_\_\_\_

Signature \_\_\_\_\_ Date 6/27/02

#### Additional Responsible Official

1. Name and Position Title of Responsible Official:

**Triveni Singh, Plant Manager**

---

2. Responsible Official Mailing Address:

Organization/Firm: **City of Tallahassee**

Street Address: **1125 Geddie Road**

City: **Tallahassee** State: **Florida** Zip Code: **32304**

---

3. Responsible Official Telephone Numbers:

Telephone: **(850) 891 - 5807** Fax: **(850) 891 - 5829**

---

4. Responsible Official Qualification (*Check one or more of the following options, as applicable*):

☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

☒ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

☐ The designated representative at an Acid Rain source.

## APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

### I. APPLICATION INFORMATION

#### Identification of Facility

1. Facility Owner/Company Name: <b>City of Tallahassee</b>	
2. Site Name: <b>Arvah B. Hopkins Generating Station</b>	
3. Facility Identification Number: <b>0730003</b> [ ] Unknown	
4. Facility Location: Street Address or Other Locator: <b>1125 Geddie Road</b> City: <b>Tallahassee</b> County: <b>Leon</b> Zip Code: <b>32304</b>	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

#### Application Contact

1. Name and Title of Application Contact: <b>Jennette Curtis, Environmental Director</b>	
2. Application Contact Mailing Address: Organization/Firm: <b>City of Tallahassee, Environmental Resources</b> Street Address: <b>3<sup>rd</sup> Floor, 300 South Adams Street</b> City: <b>Tallahassee</b> State: <b>Florida</b> Zip Code: <b>32301</b>	
3. Application Contact Telephone Numbers: Telephone: <b>(850) 891-8850</b> Fax: <b>(850) 891-8277</b>	

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<b>7/1/02</b>
2. Permit Number:	<b>0730003-003-AV</b>
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

### Purpose of Application

#### **Air Operation Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- ☐ Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- ☐ Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: \_\_\_\_\_

- ☐ Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: \_\_\_\_\_

Operation permit number to be revised: \_\_\_\_\_

- ☐ Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: \_\_\_\_\_

- ☒ Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised: 0730003-001-AV

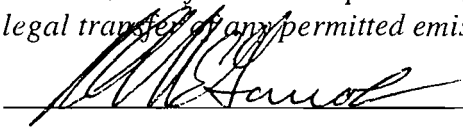
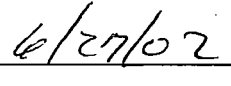
Reason for revision: Renewal with minor permit modifications

#### **Air Construction Permit Application**

This Application for Air Permit is submitted to obtain: (Check one)

- ☐ Air construction permit to construct or modify one or more emissions units.
- ☐ Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- ☐ Air construction permit for one or more existing, but unpermitted, emissions units.

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Robert E. McGarrah, Manager of Power Production (as Responsible Official)</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>City of Tallahassee</b> Street Address: <b>2602 Jackson Bluff Road</b> City: <b>Tallahassee</b> State: <b>Florida</b> Zip Code: <b>32304</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(850) 891-5534</b> Fax: <b>(850) 891-5162</b>
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ X ], if so) 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.</i>  Signature  Date

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

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Karl Bauer</b> Registration Number: <b>45808</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>City of Tallahassee</b> Street Address: <b>1125 Geddie Road</b> City: <b>Tallahassee</b> State: <b>Florida</b> Zip Code: <b>32304</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(850) 891-5859</b> Fax: <b>(850) 891-5829</b>

4. Professional Engineer Statement:

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

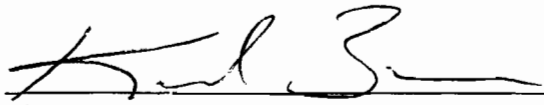
*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant 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.*

  
Signature

6/26/02  
Date

\* Attach any exception to certification statement.

**Scope of Application**

<b><u>Emissions Unit ID</u></b>	<b><u>Description of Emissions Unit</u></b>	<b><u>Permit Type</u></b>	<b><u>Processing Fee</u></b>
EU01	Fugitive VOC Sources		N/A
EU02	Combustion Turbine No. 1		N/A
EU03	Combustion Turbine No. 2		N/A
EU04	Boiler No. 1		N/A
EU05	Boiler No. 2		N/A

**Application Processing Fee**

Check one: ☐ Attached - Amount: \$ \_\_\_\_\_ ☒ Not Applicable



**Construction/Modification Information**

1. Description of Proposed Project or Alterations: N/A

2. Projected or Actual Date of Commencement of Construction: N/A

3. Projected Date of Completion of Construction: N/A

**Application Comment**

### A. GENERAL FACILITY INFORMATION

1. Facility UTM Coordinates: Zone: <b>16</b>				East (km): <b>749.53</b>	North (km): <b>3371.7</b>
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): <b>30/27/08</b>				Longitude (DD/MM/SS): <b>84/24/00</b>	
3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code:	6. Facility SIC(s):		
<b>4</b>	<b>A</b>	<b>49</b>	<b>4911</b>		
7. Facility Comment (limit to 500 characters):          					

1. Name and Title of Facility Contact:	<b>Jennette Curtis, Environmental Director</b>		
2. Facility Contact Mailing Address:			
Organization/Firm:	<b>City of Tallahassee, Environmental Resources</b>		
Street Address:	<b>3<sup>rd</sup> Floor, 300 South Adams Street</b>		
City:	<b>Tallahassee</b>	State:	<b>Florida</b>
		Zip Code:	<b>32301</b>
3. Facility Contact Telephone Numbers:			
Telephone:	<b>(850) 891-8850</b>	Fax:	<b>(850) 891-8277</b>

**Check all that apply:**

1.	<input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2.	<input checked="" type="checkbox"/> Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3.	<input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4.	<input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)?	
5.	<input type="checkbox"/> Synthetic Minor Source of HAPs?	
6.	<input type="checkbox"/> One or More Emissions Units Subject to NSPS?	
7.	<input type="checkbox"/> One or More Emission Units Subject to NESHAP?	
8.	<input type="checkbox"/> Title V Source by EPA Designation?	
9.	Facility Regulatory Classifications Comment (limit to 200 characters):	

### List of Applicable Regulations

The Florida Department of Environmental Protection Title V Core List (Effective: 3/01/02) is hereby incorporated by reference and made a part of this section. The following rules, however, are not applicable:

40 CFR 82, Protection of Stratospheric Ozone	62-256.450, F.A.C.: Burning for Cold or Frost Protection
40 CRF 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC)	
40 CFR 82, Subpart F: Recycling and Emissions Reduction	
62-210.400, F.A.C.: Emission Estimates ( <i>Repealed</i> )	
62-297.330, F.A.C.: Applicable Test Procedures ( <i>Repealed</i> )	
62-297-340, F.A.C.: Frequency of Compliance Tests ( <i>Repealed</i> )	
62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions Unit ( <i>Repealed</i> )	
62-297.350, F.A.C.: Determination of Process Variables ( <i>Repealed</i> )	
62-297.570, F.A.C.: Test Report ( <i>Repealed</i> )	
62-256.400, F.A.C.: Agricultural and Silviculture Fires	

## B. FACILITY POLLUTANTS

### List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
CO	A				
NO <sub>x</sub>	A				
PM <sub>10</sub>	A				
SO <sub>2</sub>	A				
Pb	A				
H106	A				
H107	A				
H133	A				
HAPS	A				



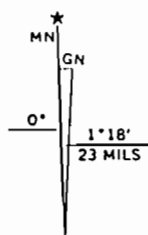
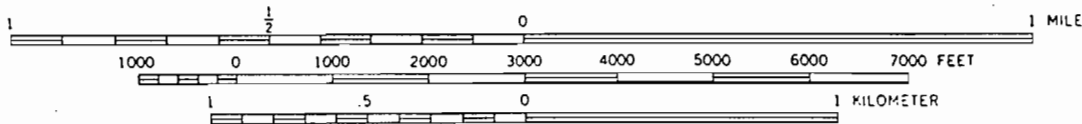
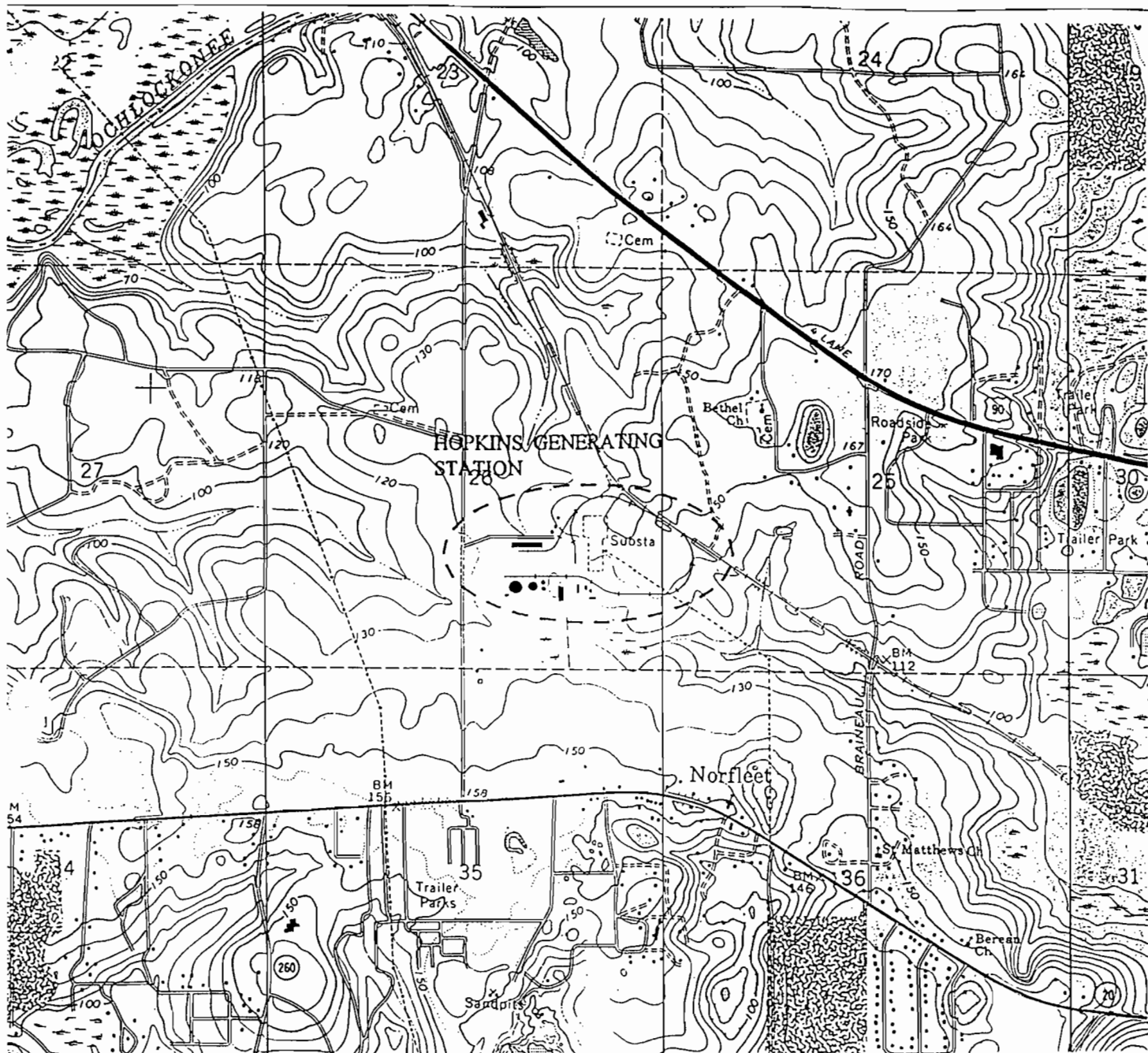
**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

8. List of Proposed Insignificant Activities: [ <b>X</b> ] Attached, Document ID: <b>HGS-06</b> [     ] Not Applicable
9. List of Equipment/Activities Regulated under Title VI: [     ] Attached, Document ID: _____ [ <b>X</b> ] Equipment/Activities On site but Not Required to be Individually Listed [     ] Not Applicable
10. Alternative Methods of Operation: [     ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable (at facility level)
11. Alternative Modes of Operation (Emissions Trading): [     ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
12. Identification of Additional Applicable Requirements: [     ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
13. Risk Management Plan Verification: [     ] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) [     ] Plan to be submitted to CEPPO (Date required: _____) [ <b>X</b> ] Not Applicable
14. Compliance Report and Plan: [ <b>X</b> ] Attached, Document ID: <b>HGS-07</b> [     ] Not Applicable
15. Compliance Certification (Hard-copy Required): [ <b>X</b> ] Attached, Document ID: <b>HGS-08</b> [     ] Not Applicable

**ATTACHMENT HGS-01**  
**FACILITY LOCATION MAP**

Arvahn B. Hopkins Generating Station  
July 4, 2002





CITY OF TALLAHASSEE, FLORIDA  
TITLE V PERMIT APPLICATION  
HOPKINS GENERATING STATION  
FACILITY LOCATION MAP

FOSTER WHEELER ENVIRONMENTAL CORPORATION

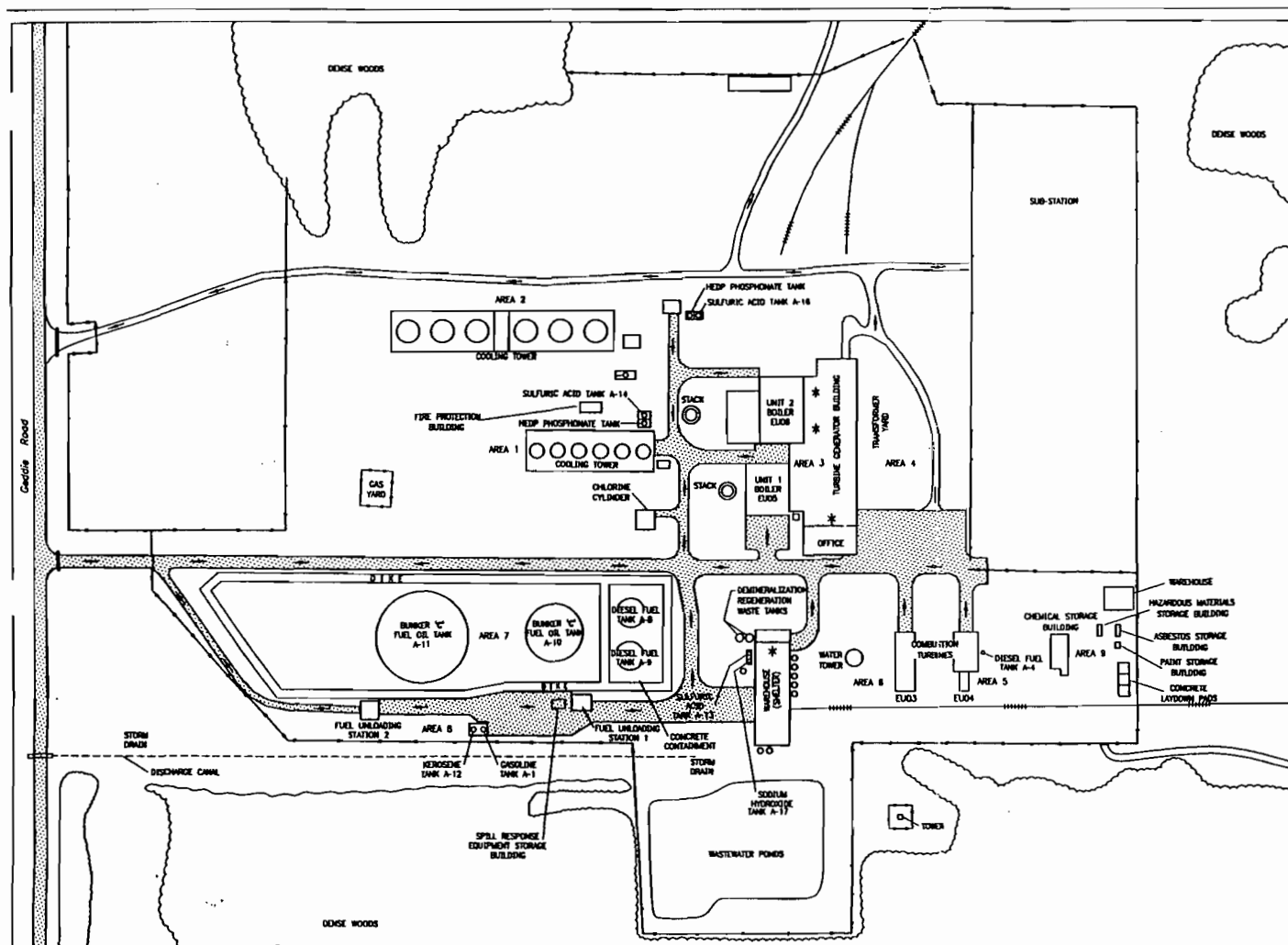
SCALE: N/A  
DATE: 5/8/96

BY: MAB  
CKD BY: CJT  
REV. BY:

USGS 7.5' QUAD  
MIDWAY, FL  
FIGURE NO. HGS-01

**ATTACHMENT HGS-02**

**SITE PLAN**

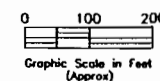


# LEGEND

- TREELINE
- FENCE
- RAILROAD
- PAVED AREA
- EVACUATION ROUTE
- MARSHALLING AREA
- \* FIRE ALARM

NOTE:  
THIS SITE PLAN DEPICTS THAT PORTION OF THE CITY OF TALLAHASSEE ARVAH B. HOPKINS GENERATING STATION THAT CONTAINS EMISSIONS POINTS AS DESCRIBED IN THE TITLE V APPLICATION. THE ACTUAL PROPERTY BOUNDARY OF THE ARVAH B. HOPKINS GENERATING STATION EXTENDS OUTSIDE THE LIMITS OF THIS SITE PLAN.

N



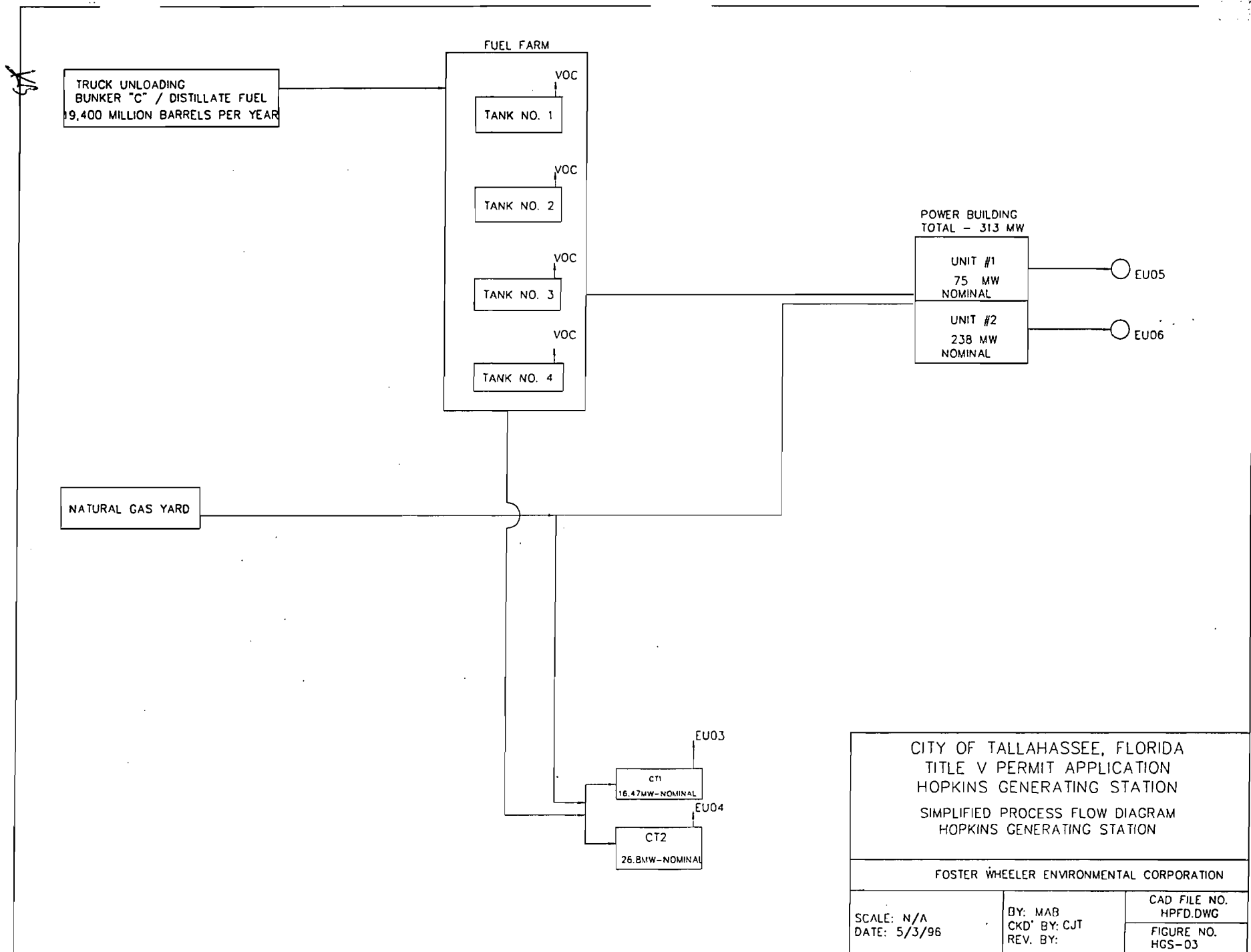
ARVAH B. HOPKINS GENERATING STATION  
TALLAHASSEE, FLORIDA

## SITE PLAN

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE AS SHOWN	PREPARED R.P.V.	CAD FILE NO.
DIV. ENV.	CHECKED	ERAP14
DATE	APPROVED	FIGURE No.
		HGS-02

**ATTACHMENT HGS-03**  
**PROCESS FLOW DIAGRAM**



**ATTACHMENT HGS-04**  
**REASONABLE PRECAUTIONS**

### **Reasonable Precautions**

As part of the Title V application development, the City of Tallahassee reviewed the potential sources of unconfined particulate and VOC 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 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
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 and VOC:

- The portable concrete mixer is operated on an as-needed basis. Reasonable precautions include enclosing the activity where practicable.
- The abrasive blasting activities are associated with normal maintenance and corrosion control activities. These activities are also enclosed where practicable.
- 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) where practicable.
- The spray applications of surface coatings are associated with normal maintenance and corrosion activities. The activities are enclosed whenever practicable.

**ATTACHMENT HGS-05**  
**FUGITIVE EMISSIONS IDENTIFICATION**



### **Fugitive Emissions Identification**

Fugitive emissions resulting from the operation of the Hopkins Generating Station are addressed in Attachment HGS-06 (Insignificant Activities) of this renewal application.

Fugitive emissions that exceed the emissions threshold amount set forth in Section III(F) of this renewal application have been assigned an Emissions Unit Identification Number. An Emissions Unit Information Section has been completed for these units.

**ATTACHMENT HGS-06**  
**INSIGNIFICANT ACTIVITIES**

### Insignificant Activities

In developing the Title V renewal application the City of Tallahassee conducted an emissions unit inventory of the Hopkins Generating Station. The attached inventory represents a comprehensive examination of the facility, its operations, and potential emissions units. The inventory identified fifteen (15) emissions unit areas. These areas include the following:

1. Steam Generator (Boiler) Operations
2. Combustion Turbine Operations
3. Emergency Generator
4. Fuel Farm (Organic Liquid Storage)
5. Fuel Dispensing Operations
6. Space Heating
7. Evaporative Loss Sources
8. Cooling Towers
9. Water Treatment
10. Laboratory
11. Central Vacuum System
12. Maintenance Activities
13. Plant Operations
14. Fugitive Dust
15. Gasoline Engines

The inventory attempted to identify every emissions unit at the facility. The attached inventory provides descriptions of each emissions unit noted at the facility and lists its regulatory classification. The regulatory classifications encompass the following four (4) general categories:

- Regulated (with or without emissions limitations)
- Unregulated
- Proposed to be insignificant under criteria listed in Rule 62-213.430(6), F.A.C
- Trivial – per FDEP guidance (all trivial emissions units and activities have been omitted from the inventory list per FDEP guidance dated March 1, 2000).

The Title V renewal application includes all regulated emissions units and the unregulated VOC sources. The regulated emissions units have specific emissions limitations. The VOC sources are considered unregulated emissions units with no specific emission limited pollutants.

HGS-06

Aryah B. Hopkins Generating Station

July 1, 2002

The list of emissions units also includes those which meet the insignificant criteria of Rule 62-213.430(6), F.A.C. The emissions units includes:

Evaporative Loss Sources – Exemption is requested for surface coating operations at the facility based on the fugitive nature of the emissions and low quantities of surface coating material. Surface coating activities have been included in the Title V application within EU-01.

**CITY OF TALLAHASSEE  
EMISSIONS UNIT INVENTORY  
SOURCE - HOPKINS GENERATING STATION**

<b>Activity No.</b>	<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Regulatory <sup>(1)</sup> Classification</b>
1	Steam Generator No. 1	Steam Generator - 903 mmBtu/hr	Regulated - Permit No. 0730003-001-AV
1a	Deareator Vents	Deareator Vents	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1b	Air Ejectors	Air Ejectors	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1c	Oil Vapor Extractors	Oil Vapor Extractors	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1d	Noncondensable gas	Noncondensable gas extractors	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1e	Seal Oil Vacuum Pumps	Seal Oil Vacuum Pumps	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1f	Lube Oil Tanks	Lube Oil Tanks	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1g	Lube/Fuel Oil Drip Pans	Lube/Fuel Oil Drip Pans	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1h	Hydrogen Gas Vents	Hydrogen Gas Vents	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1i	Fuel Oil Piping	Fuel Oil Piping	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1j	Nat Gas Blowdown/Vent	Nat Gas Vents	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
1k	CO2 Vent Purge	CO2 Vents	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2	Steam Generator No. 2	Steam Generator - 2500 mmBtu/hr	Regulated - Site Cert. PA 74-03D & Permit No. 0730003-001-AV
2a	Deareator Vents	Deareator Vents	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2b	Air Ejectors	Air Ejectors	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2c	Noncondensable gas	Noncondensable gas extractors	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2d	Lube Oil Tanks	Lube Oil Tanks	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2e	Oil Vapor Extractors	Oil Vapor Extractors	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2f	Seal Oil Vacuum Pumps	Seal Oil Vacuum Pumps	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2g	Lube/Fuel Oil Drip Pans	Lube/Fuel Oil Drip Pans	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2h	Hydrogen Gas Vents	Hydrogen Gas Vents	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2i	Fuel Oil Piping	Fuel Oil Piping	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2j	Nat Gas Blowdown/Vent	Nat Gas Vents	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
2k	CO2 Vent Purge	CO2 Vents	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
3	CT #1	Combustion Turbine - 228 mmBtu/hr	Regulated - Permit No. 0730003-001-AV
3a	Diesel Engine	Diesel Engineer Starter	Unregulated - Exempt per Rule 62-210.300(3)(a)(21)
3b	Diesel Tank	Diesel Tank #10	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
3c	Oil Vapor Extractor	Oil Vapor Extractor	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
3d	Lube Oil Tank	Lube Oil Tank	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
3e	Natural Gas Blowdown	Natural Gas Blowdown	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
3f	Fuel Oil Piping	Fuel Oil Piping	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
4	CT #2	Combustion Turbine - 446 mmBtu/hr	Regulated - Permit No. 0730003-001-AV
4a	Diesel Engine	Diesel Engine Starter	Unregulated - Exempt per Rule 62-210.300(3)(a)(21)
4b	Diesel Tank	Diesel Tank #10	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)

**CITY OF TALLAHASSEE  
EMISSIONS UNIT INVENTORY  
SOURCE - HOPKINS GENERATING STATION**

<b>Activity No.</b>	<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Regulatory <sup>(1)</sup> Classification</b>
4c	Oil Vapor Extractor	Oil Vapor Extractor	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
4d	Lube Oil Tank	Lube Oil Tank	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
4e	Natural Gas Blowdown	Natural Gas Blowdown	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
4f	Fuel Oil Piping	Fuel Oil Piping	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
5	Day Tank	Diesel Tank #12	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
5a	Fuel Dispensing Operation	Diesel Fuel	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
6	Diesel Engine	Emergency Generator	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
6a	Diesel Tank	Diesel Tank #13	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
6b	Liquid Propane Engine	Emergency Generator (800 MHz twr)	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
7	Fuel Farm	Diesel Tank #1	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
7a	Fuel Farm	Diesel Tank #2	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
7b	Fuel Farm	Fuel Oil Tank #3	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
7c	Fuel Farm	Fuel Oil Tank #4	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
7d	Fuel Farm	Fuel Oil Piping	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
7e	Fuel Farm	Fuel Station #1	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
7f	Fuel Farm	Fuel Station #2	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
7g	Fuel Dispensing Operation	Truck Loading/Unloading	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
8	Fuel Dispensing Operation	Gasoline Tank	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
8a	Fuel Dispensing Operation	Gasoline Pump	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
9	Fuel Dispensing Operation	Diesel Tank	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
9a	Fuel Dispensing Operation	Diesel Pump	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
10	Organic Liquid Storage	Kerosene Tank #7	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
10a	Organic Liquid Storage	Lube Oil Tank #8	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
10b	Organic Liquid Storage	Lube Oil Tank #9	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11a	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11b	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11c	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11d	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11e	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11f	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11g	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11h	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11i	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)

**CITY OF TALLAHASSEE  
EMISSIONS UNIT INVENTORY  
SOURCE - HOPKINS GENERATING STATION**

<b>Activity No.</b>	<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Regulatory <sup>(1)</sup> Classification</b>
11j	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11k	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11l	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11m	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
11n	Solvent Cleaning	Parts Washer - Nonhalogenated	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
12	Cooling Tower	Freshwater Cooling Tower	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
13	Cooling Tower	Freshwater Cooling Tower	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
14	Central Vacuum system	Central Vacuum System	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
15	Maintenance Activities	Welding	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
15a	Maintenance Activities	High Temperature Metal Cutting	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
16	Plant Operations	Lube Oil Storage Tanks	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
16a	Plant Operations	Propane Storage Tanks	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
16b	Plant Operations	Sulfuric Acid Tank Vent	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
16c	Plant Operations	Sodium Hydroxide Tank Vents	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
16d	Plant Operations	Demineralizer Degasifier	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
16e	Plant Operations	G/C Natural Gas Vent	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
16f	Plant Operations	Natural Gas Blowdown	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
17	Fugitive Dust	Paved Roads	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
17a	Fugitive Dust	Unpaved Roads	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
17b	Fugitive Dust	Heavy Construction Activities	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
17c	Fugitive Dust	Aggregate Handling & Storage	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
18	Gasoline Engine	Welding Generator	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
18a	Gasoline Engine	Emergency Generator	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)
18b	Gasoline Engine	Emergency Generator	Unregulated - Propose insignificant under criteria in Rule 62-213.430(6)

<sup>(1)</sup>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.

**ATTACHMENT HGS-07**  
**COMPLIANCE REPORT AND PLAN**



### **Compliance Report and Plan**

The List of Applicable Regulations contained in the Emissions Unit Information Section of each regulated emissions unit identifies the requirements which are applicable to each of these units that comprise this Title V source. Each emissions unit is in compliance with the respective applicable requirements identified in this renewal application as of the date of application submittal.

### **Proposed Schedule for the Submission of Periodic Compliance Statements Throughout the Permit Term**

Periodic compliance statements are proposed to be submitted on an annual basis consistent with FDEP Rule 62-213.440(3), F.A.C., once the Title V permit is issued and effective.

HGS-07

Avonah B. Hopkins Generating Station

July 1, 2002

**ATTACHMENT HGS-08**  
**COMPLIANCE CERTIFICATION**

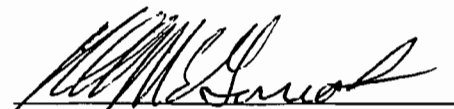
Arrah B. Hopkins Generating Station  
July 1, 2002

### Compliance Certification

In accordance with the instructions for the Florida Department of Environmental Protection's Form No. 62-210.900(1), F.A.C., and Rule 62-213.420(3)(k), F.A.C., a compliance statement must be included in each application for an air pollution permit. This Compliance Certification is intended to meet the requirements of the instructions and the regulation.

### Certification Statement

I, the undersigned, am a Responsible Official as defined in Chapter 62-210.200(220), F.A.C., of the Title V Source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements and information in this application are true, accurate and complete.

  
Robert E. McGarrah  
Manager of Power Production

6/27/02  
Date

## III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
(All Emissions Units)

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
<b>Fugitive VOC from surface coating</b>			
4. Emissions Unit Identification Number:			
<b>Identified in Permit No. 0730003-001-AV as EU "xxx"</b>			
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
<b>A</b>	<b>N/A</b>	<b>49</b>	<input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			

**Emissions Unit (EU-01) Information Section 1 of 5**

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method): <b>N/A</b>
2. Control Device or Method Code(s): <b>N/A</b>

**Emissions Unit Details**

1. Package Unit: <b>N/A</b> Manufacturer: Model Number:
2. Generator Nameplate Rating: <b>N/A</b> MW
3. Incinerator Information: <b>N/A</b> Dwell Temperature: °F Dwell Time: seconds Incinerator Afterburner Temperature: °F

**B. EMISSIONS UNIT CAPACITY INFORMATION**  
(Regulated Emissions Units Only)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate: N/A		
2. Maximum Incineration Rate: N/A	lb/hr	
3. Maximum Process or Throughput Rate: N/A		
4. Maximum Production Rate: N/A		
5. Requested Maximum Operating Schedule: N/A		
	hours/day	days/week
	weeks/year	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters): N/A		



Emissions Unit (EU-01) Information Section 1 of 5

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>N/A</b>		2. Emission Point Type Code: <b>N/A</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): <b>N/A</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>N/A</b>			
5. Discharge Type Code: <b>N/A</b>	6. Stack Height: <b>N/A</b>	7. Exit Diameter: <b>N/A</b>	
8. Exit Temperature: <b>N/A</b>	9. Actual Volumetric Flow Rate: <b>N/A</b>	10. Water Vapor: <b>N/A</b>	
11. Maximum Dry Standard Flow Rate: <b>N/A</b>		12. Nonstack Emission Point Height: <b>N/A</b>	
13. Emission Point UTM Coordinates: <b>N/A</b>			
14. Emission Point Comment (limit to 200 characters): <b>N/A</b>			



Emissions Unit (EU-01) Information Section 1 of 5

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
(All Emissions Units)

**Segment Description and Rate:**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Surface Coating</b>		
2. Source Classification Code (SCC): <b>2401001000*</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate:  <b>N/A</b>	5. Maximum Annual Rate:  <b>N/A</b>	6. Estimated Annual Activity Factor:  <b>5000</b>
7. Maximum % Sulfur:  <b>N/A</b>	8. Maximum % Ash:  <b>N/A</b>	9. Million Btu per SCC Unit:  <b>N/A</b>
10. Segment Comment (limit to 200 characters):  <b>The Estimated Annual Activity Factor is based on the maximum surface area covered.</b>  <b>*Other codes may also apply</b>		

**Emissions Unit (EU-01) Information Section 1 of 5**

**F. EMISSIONS UNIT POLLUTANTS  
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			NS
HAPS			NS
H085			NS
H120			NS
H123			NS
H169			NS
H186			NS

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units -**  
**Emissions-Limited and Preconstruction Review Pollutants Only)**

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>N/A</b>	2. Total Percent Efficiency of Control: <b>N/A</b>
3. Potential Emissions: <b>N/A</b> lb/hour tons/year	4. Synthetically Limited? <input type="checkbox"/> <input type="checkbox"/>
5. Range of Estimated Fugitive Emissions: <b>N/A</b> [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: <b>N/A</b> Reference:	7. Emissions Method Code: <b>N/A</b>
8. Calculation of Emissions (limit to 600 characters): <b>N/A</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): <b>N/A</b>	

**Allowable Emissions**

1. Basis for Allowable Emissions Code: <b>N/A</b>	2. Future Effective Date of Allowable Emissions: <b>N/A</b>
3. Requested Allowable Emissions and Units: <b>N/A</b>	4. Equivalent Allowable Emissions: <b>N/A</b> lb/hour tons/year
5. Method of Compliance (limit to 60 characters): <b>N/A</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): <b>N/A</b>	

Emissions Unit (EU-01) Information Section 1 of 5

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:**

1. Visible Emissions Subtype: <b>N/A</b>	2. Basis for Allowable Opacity: <b>N/A</b> [ ] Rule [ ] Other
3. Requested Allowable Opacity: <b>N/A</b> Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <b>N/A</b>	
5. Visible Emissions Comment (limit to 200 characters): <b>N/A</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:**

1. Parameter Code: <b>N/A</b>	2. Pollutant(s): <b>N/A</b>
3. CMS Requirement: <b>N/A</b>	[ ] Rule [ ] Other
4. Monitor Information: <b>N/A</b> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <b>N/A</b>	6. Performance Specification Test Date: <b>N/A</b>
7. Continuous Monitor Comment (limit to 200 characters): <b>N/A</b>	

Emissions Unit (EU-01) Information Section 1 of 5

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
(Regulated Emissions Units Only)

**Supplemental Requirements**

1. Process Flow Diagram [ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [ X ] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [ X ] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [ X ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [ X ] Not Applicable
10. Supplemental Requirements Comment:

**Emissions Unit (EU-01) Information Section 1 of 5**

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID:_____ <input checked="" type="checkbox"/> Not Applicable
15. Acid Rain Part Application (Hard-copy Required)  <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:_____  <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:_____  <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:_____  <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:_____  <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:_____  <input type="checkbox"/> Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:_____  <input checked="" type="checkbox"/> Not Applicable

## III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
(All Emissions Units)

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
<b>Combustion Turbine No. 1</b>			
4. Emissions Unit Identification Number:			
<input type="checkbox"/> No ID		ID: <b>002</b>	
<input type="checkbox"/> ID Unknown			
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
<b>A</b>	<b>N/A</b>	<b>49</b>	<input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
<b>The maximum allowable operating rate is currently 228 mmBtu/hr (lower heating value) at an ambient temperature of 80 degrees Fahrenheit when firing fuel oil or natural gas. The maximum hours of operation are 8491 hours per year. This unit pre-dates PSD regulations.</b>			

**Emissions Unit (EU-02) Information Section 2 of 5**

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method): **N/A**

2. Control Device or Method Code(s): **N/A**

**Emissions Unit Details**

1. Package Unit:

Manufacturer: **Westinghouse**

Model Number: **W191G**

2. Generator Nameplate Rating: **16.47** MW (nominal)

3. Incinerator Information:

Dwell Temperature:

°F

Dwell Time:

seconds

Incinerator Afterburner Temperature:

°F



**B. EMISSIONS UNIT CAPACITY INFORMATION**  
(Regulated Emissions Units Only)

**Emissions Unit Operating Capacity and Schedule**

1.	Maximum Heat Input Rate: <b>228 mmBtu/hr</b>		
2.	Maximum Incineration Rate: <b>N/A</b>		lb/hr
3.	Maximum Process or Throughput Rate: <b>N/A</b>		
4.	Maximum Production Rate: <b>N/A</b>		
5.	Requested Maximum Operating Schedule:		
	hours/day		days/week
	weeks/year		<b>8491</b> hours/year
6.	Operating Capacity/Schedule Comment (limit to 200 characters):		
	<p><b>The maximum heat input rate is based on the lower heating value at an ambient temperature of 80 degrees Fahrenheit. All calculations herein are based on the value in Field 1 above.</b></p>		

### C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

### List of Applicable Regulations

[illegible]

Emissions Unit (EU-02) Information Section 2 of 5

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>EU-03</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>The emission point represents the exhaust for Combustion Turbine No. 1</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:  <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>27.4 feet</b>	7. Exit Diameter: <b>13.5 feet*</b>	
8. Exit Temperature: <b>802.4 °F</b>	9. Actual Volumetric Flow <b>456,297.2 acfm</b>	10. Water Vapor: <b>N/A</b>	
11. Maximum Dry Standard Flow Rate: <b>N/A</b>		12. Nonstack Emission Point Height: <b>N/A</b>	
13. Emission Point UTM Coordinates:  <b>See Facility UTM Coordinates Previously Provided in this Application</b>			
14. Emission Point Comment (limit to 200 characters):  <b>*The stack for Combustion Turbine No. 1 is rectangular in shape. The value in Field 7 reflects the diameter of a circular stack with equal exit area (i.e. equivalent diameter).</b>  <b>Values in Fields 8 &amp; 9 are based on design and subject to change based on factors including ambient conditions.</b>			

Emissions Unit (EU-02) Information Section 2 of 5

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
(All Emissions Units)

**Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Natural Gas</b>		
2. Source Classification Code (SCC): <b>20100201</b>		3. SCC Units: <b>mmSCF</b>
4. Maximum Hourly Rate: <b>0.245</b>	5. Maximum Annual Rate: <b>2077</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>0.1 (grains/cf)</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>932</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly and Annual Rates based on 8491 hours per year operation.</b>  <b>Calorific value provided is lower heating value for natural gas. This value is an estimate and subject to fluctuation.</b>		

**Segment Description and Rate:** Segment 2 of 2

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  <b>Fuel Oil No. 2</b>		
2. Source Classification Code (SCC): <b>20100101</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate: <b>1740</b>	5. Maximum Annual Rate: <b>1.48 x 10<sup>7</sup></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>0.4</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.131</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly and Annual Rates based on 8491 hours per year operation.</b>  <b>Calorific value provided is lower heating value for No. 2 fuel oil. This value is an estimate and subject to fluctuation.</b>  <b>Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.</b>		

**F. EMISSIONS UNIT POLLUTANTS**  
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NO <sub>x</sub>			NS
PM			NS
PM <sub>10</sub>			NS
SO <sub>2</sub>			EL
VOC			NS
H106			NS
H107			NS
H133			NS
HAPS			NS

Emissions Unit (EU-02) Information Section 2 of 5

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>98.1 lb/hour                      416.6 tons/year</b>		4. Synthetically Limited? <b>[ X ]</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>Fuel Oil Sulfur Content: 0.4% (wt)</b> <b>Fuel Oil Usage Rate: 1.218 x 10<sup>4</sup> lb/hr</b> <b>MW SO<sub>2</sub>: 64, MW O<sub>2</sub>: 32</b>  <b>lb/hr = (1.227 x 10<sup>4</sup> lb/hr) x (0.4/100) x (64/32) = 98.1 lb/hr</b>  <b>TPY = (98.1 lb/hr) x (8491 hrs/yr) x (ton/2000 lb) = 416.6 TPY</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>The current maximum permitted fuel sulfur content is 0.4% and the maximum hours of operation are 8491 hours per year. Potential emissions are set equal to the equivalent allowable emissions.</b>  <b>Assumed fuel oil density of 7.05 lb/gal</b>			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>Other</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:  <b>0.4% sulfur (wt)</b>		4. Equivalent Allowable Emissions:  <b>98.1 lb/hour                      416.6 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>Records of fuel oil sulfur content as received from vendor are maintained and kept available for Department inspections.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions limitation entered in Field 1 is Specific Condition No. C-6 in current operating Permit No. 0730003-001-AV. This condition requires that the sulfur content of the oil not exceed 0.4% sulfur by weight.</b>			

Emissions Unit (EU-02) Information Section 2 of 5

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: <b>&lt;20%</b> Exceptional Conditions: <b>100 %</b> Maximum Period of Excess Opacity Allowed: <b>60</b> min/hour	
4. Method of Compliance:  <b>EPA Method 9 in any fiscal year in which the turbine operates greater than 400 hours.</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>In accordance with Rule 62-210.700(1), F.A.C., excess emissions resulting from startup, shutdown, or malfunction are permitted providing that the duration of excess emissions be minimized but in no case to exceed two hours in any 24 hour period unless authorized by the Department for longer duration.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:**

1. Parameter Code: <b>N/A</b>	2. Pollutant(s): <b>N/A</b>
3. CMS Requirement: <b>N/A</b>	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: <b>N/A</b> Manufacturer: Model Number:      Serial Number:	
5. Installation Date: <b>N/A</b>	6. Performance Specification Test Date: <b>N/A</b>
7. Continuous Monitor Comment (limit to 200 characters): <b>N/A</b>	

Emissions Unit (EU-02) Information Section 2 of 5

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
(Regulated Emissions Units Only)

**Supplemental Requirements**

1. Process Flow Diagram [ X ] Attached, Document ID: <u>EU02-01</u> [   ] Not Applicable      [   ] Waiver Requested
2. Fuel Analysis or Specification [ X ] Attached, Document ID: <u>EU02-02</u> [   ] Not Applicable      [   ] Waiver Requested
3. Detailed Description of Control Equipment [   ] Attached, Document ID: _____      [ X ] Not Applicable      [   ] Waiver Requested
4. Description of Stack Sampling Facilities [ X ] Attached, Document ID: <u>EU02-03</u> [   ] Not Applicable      [   ] Waiver Requested
5. Compliance Test Report [ X ] Attached, Document ID: <u>EU02-04</u> [   ] Previously submitted, Date: _____ [   ] Not Applicable
6. Procedures for Startup and Shutdown [ X ] Attached, Document ID: <u>EU02-05</u> [   ] Not Applicable      [   ] Waiver Requested
7. Operation and Maintenance Plan [   ] Attached, Document ID: _____      [ X ] Not Applicable      [   ] Waiver Requested
8. Supplemental Information for Construction Permit Application [   ] Attached, Document ID: _____      [ X ] Not Applicable
9. Other Information Required by Rule or Statute [   ] Attached, Document ID: _____      [ X ] Not Applicable
10. Supplemental Requirements Comment:          

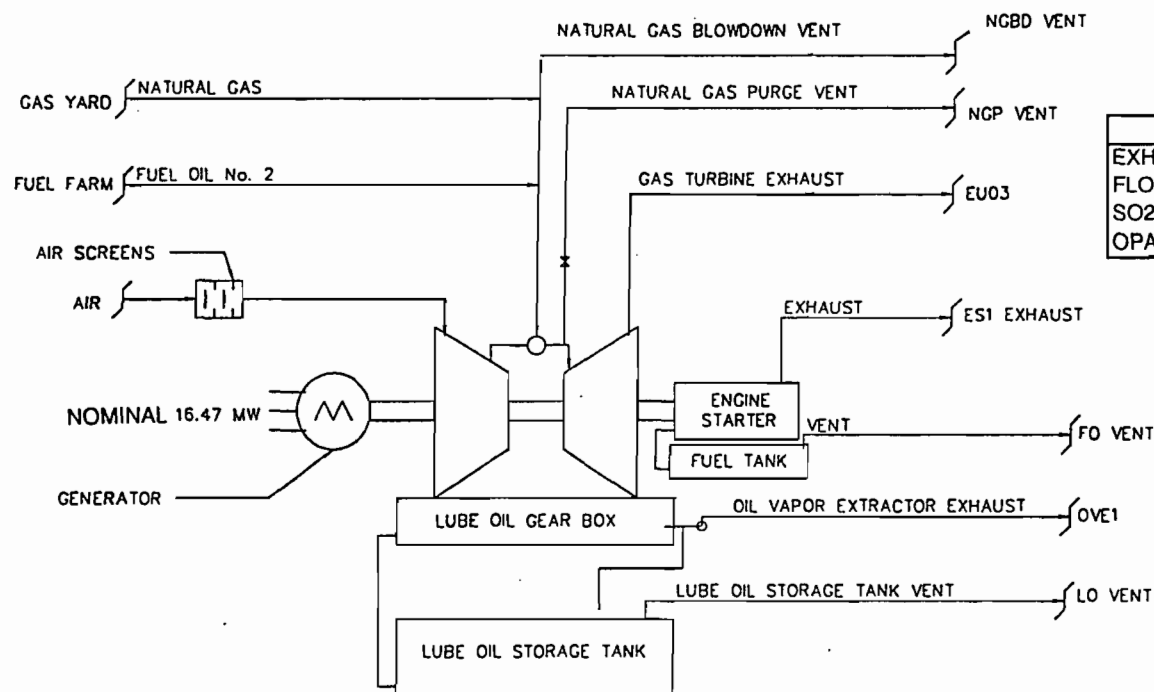


**Emissions Unit (EU-02) Information Section 2 of 5**

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation [ <b>X</b> ] Attached, Document ID: <u>EU02-06</u> [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
13. Identification of Additional Applicable Requirements [ <b>X</b> ] Attached, Document ID: <u>EU02-07</u> [ ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ <b>X</b> ] Not Applicable

**ATTACHMENT EU02-01**  
**FLOW DIAGRAM**



CT1 - EXHAUST PARAMETERS	
EXHAUST TEMP. -	802.4 F
FLOW RATE -	456,297.2 ACFM
SO2 EMISSIONS -	98.1 LBS/HR
OPACITY <	20% EXCEPT AS ALLOWED

OPERATING DATA		
PARAMETER	NATURAL GAS	NO. 2 FUEL OIL
HEAT RATE (MMBUT/HR)	228	228
FEED RATE (MMCF/HR)	0.245	N / A
FEED RATE (KGAL/HR)	N / A	1.74
FEED RATE (LB/HR)	N / A	12,270

CITY OF TALLAHASSEE, FLORIDA  
TITLE V PERMIT APPLICATION  
HOPKINS GENERATING STATION

SIMPLIFIED PROCESS FLOW DIAGRAM  
COMBUSTION TURBINE NO. 1

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	BY: DJG CKD: BY:CJT	CAD FILE NO. HCT1.DWG
DATE 04/30/96	REV. BY:CJT	FIGURE NO. EU03-02

**ATTACHMENT EU02-02**  
**FUEL ANALYSIS OR SPECIFICATION**

**Aryah B. Hopkins Generating Station**  
**July 1, 2002**

### **Fuel Analysis or Specification**

The attached fuel sample analyses represent "typical" characterizations for the fuels combusted in EU02, Combustion Turbine No. 1. Maximum values could be higher. The fuels represented in the analyses are natural gas and #2 fuel oil.

**EU02-02**

**Aryan B. Hopkins Generating Station**

**July 1, 2002**

## daily chromatograph

date requested: May 23 2002 9:59AM

The data contained herein is preliminary data and therefore should be used for contemporaneous operational purposes only and may be subject to change at month end. This data is provided to assist our customers in tracking their gas usage as closely as possible on a real-time basis. The information contained on this web page is not to be considered billable information. This data will be subject to additional verification and possible modification prior to billing.

Chromatograph Report For: 8031 - PERRY STREAM #2																
download																
Date	BTU	CO2	N2	Grav	Methan	Ethane	Propan	lbutan	Nbutan	lpenta	Npenta	C6	C7	H2	Helium	Oxygen
05/23/2002	1036	0.905	0.354	0.587	95.665	2.284	0.440	0.115	0.097	0.042	0.026	0.072	0	0	0	0
05/22/2002	1036	0.854	0.400	0.586	95.555	2.442	0.432	0.107	0.091	0.036	0.022	0.060	0	0	0	0
05/21/2002	1041	0.865	0.339	0.590	95.264	2.549	0.585	0.148	0.125	0.042	0.023	0.059	0	0	0	0
05/20/2002	1043	0.831	0.427	0.591	94.930	2.841	0.577	0.139	0.125	0.042	0.025	0.064	0	0	0	0
05/19/2002	1042	0.872	0.383	0.590	95.111	2.649	0.583	0.144	0.125	0.042	0.025	0.065	0	0	0	0
05/18/2002	1042	0.813	0.401	0.590	95.082	2.751	0.559	0.134	0.118	0.044	0.027	0.071	0	0	0	0
05/17/2002	1046	0.817	0.386	0.593	94.826	2.865	0.654	0.162	0.137	0.050	0.029	0.073	0	0	0	0
05/16/2002	1044	0.786	0.386	0.591	95.045	2.760	0.615	0.147	0.125	0.044	0.026	0.065	0	0	0	0
05/15/2002	1042	0.734	0.410	0.588	95.218	2.740	0.541	0.123	0.108	0.039	0.024	0.062	0	0	0	0
05/14/2002	1043	0.742	0.431	0.590	95.066	2.821	0.561	0.131	0.114	0.042	0.026	0.065	0	0	0	0
05/13/2002	1041	0.725	0.417	0.588	95.283	2.733	0.500	0.114	0.099	0.040	0.025	0.064	0	0	0	0
05/12/2002	1041	0.737	0.410	0.588	95.336	2.671	0.493	0.114	0.100	0.042	0.027	0.070	0	0	0	0
05/11/2002	1045	0.725	0.395	0.590	94.905	3.052	0.557	0.122	0.110	0.041	0.026	0.067	0	0	0	0
05/10/2002	1047	0.765	0.373	0.592	94.767	3.087	0.600	0.139	0.122	0.046	0.028	0.072	0	0	0	0
05/09/2002	1046	0.744	0.374	0.591	94.937	2.938	0.596	0.137	0.123	0.046	0.030	0.074	0	0	0	0
05/08/2002	1042	0.734	0.398	0.589	95.191	2.775	0.530	0.126	0.108	0.042	0.026	0.068	0	0	0	0
05/07/2002	1040	0.720	0.407	0.587	95.408	2.651	0.471	0.112	0.097	0.040	0.026	0.069	0	0	0	0
05/06/2002	1040	0.681	0.408	0.586	95.497	2.609	0.466	0.112	0.095	0.041	0.026	0.067	0	0	0	0
05/05/2002	1041	0.749	0.408	0.588	95.239	2.756	0.501	0.118	0.097	0.041	0.026	0.065	0	0	0	0
05/04/2002	1038	0.791	0.401	0.587	95.384	2.681	0.439	0.096	0.081	0.037	0.025	0.065	0	0	0	0
05/03/2002	1034	0.821	0.412	0.585	95.609	2.514	0.382	0.080	0.070	0.033	0.022	0.058	0	0	0	0
05/02/2002	1033	0.766	0.403	0.583	95.926	2.294	0.356	0.080	0.068	0.031	0.021	0.053	0	0	0	0
05/01/2002	1032	0.757	0.406	0.582	95.979	2.292	0.332	0.074	0.062	0.029	0.020	0.050	0	0	0	0
04/30/2002	1032	0.784	0.420	0.583	95.877	2.308	0.362	0.080	0.070	0.030	0.020	0.049	0	0	0	0
04/29/2002	1033	0.784	0.421	0.584	95.868	2.286	0.376	0.086	0.078	0.031	0.021	0.050	0	0	0	0
04/28/2002	1033	0.797	0.431	0.584	95.812	2.294	0.391	0.090	0.080	0.032	0.021	0.052	0	0	0	0
04/27/2002	1034	0.790	0.439	0.585	95.677	2.414	0.395	0.092	0.082	0.034	0.022	0.056	0	0	0	0
04/26/2002	1035	0.779	0.433	0.585	95.678	2.407	0.407	0.095	0.083	0.035	0.023	0.059	0	0	0	0
04/25/2002	1034	0.720	0.421	0.584	95.853	2.331	0.401	0.088	0.079	0.033	0.022	0.054	0	0	0	0
04/24/2002	1033	0.711	0.417	0.582	95.981	2.286	0.361	0.079	0.066	0.029	0.019	0.050	0	0	0	0
04/23/2002	1034	0.718	0.410	0.583	95.838	2.391	0.391	0.082	0.072	0.029	0.019	0.050	0	0	0	0

04/22/2002	1034	0.699	0.428	0.583	95.824	2.417	0.372	0.082	0.073	0.032	0.022	0.052	0	0	0	0
04/21/2002	1034	0.763	0.432	0.584	95.785	2.374	0.375	0.088	0.076	0.032	0.022	0.054	0	0	0	0
04/20/2002	1033	0.732	0.438	0.583	95.885	2.320	0.362	0.084	0.074	0.032	0.022	0.052	0	0	0	0
04/19/2002	1034	0.742	0.436	0.584	95.751	2.419	0.372	0.087	0.077	0.034	0.024	0.057	0	0	0	0
04/18/2002	1033	0.750	0.423	0.584	95.860	2.334	0.364	0.086	0.075	0.032	0.022	0.053	0	0	0	0
04/17/2002	1034	0.721	0.443	0.583	95.836	2.377	0.360	0.083	0.073	0.031	0.021	0.053	0	0	0	0
04/16/2002	1033	0.763	0.404	0.583	95.866	2.350	0.356	0.084	0.070	0.032	0.020	0.054	0	0	0	0
04/15/2002	1032	0.752	0.412	0.583	95.951	2.296	0.337	0.080	0.067	0.031	0.020	0.053	0	0	0	0
04/14/2002	1032	0.771	0.399	0.583	95.969	2.272	0.340	0.080	0.067	0.031	0.020	0.051	0	0	0	0
04/13/2002	1032	0.747	0.402	0.582	96.052	2.231	0.329	0.076	0.064	0.029	0.020	0.051	0	0	0	0
04/12/2002	1032	0.777	0.413	0.583	95.920	2.310	0.329	0.078	0.065	0.032	0.021	0.055	0	0	0	0
04/11/2002	1033	0.829	0.418	0.584	95.753	2.391	0.353	0.080	0.066	0.032	0.022	0.057	0	0	0	0
04/10/2002	1034	0.818	0.432	0.585	95.582	2.546	0.362	0.083	0.068	0.032	0.022	0.055	0	0	0	0
04/09/2002	1033	0.788	0.431	0.584	95.699	2.483	0.352	0.081	0.066	0.030	0.020	0.050	0	0	0	0
04/08/2002	1032	0.781	0.415	0.583	95.922	2.305	0.337	0.080	0.066	0.029	0.018	0.047	0	0	0	0
04/07/2002	1034	0.778	0.427	0.584	95.773	2.378	0.378	0.086	0.074	0.032	0.021	0.052	0	0	0	0
04/06/2002	1032	0.809	0.416	0.584	95.824	2.367	0.351	0.075	0.062	0.029	0.020	0.048	0	0	0	0
04/05/2002	1035	0.839	0.395	0.586	95.577	2.497	0.419	0.093	0.074	0.034	0.022	0.050	0	0	0	0
04/04/2002	1033	0.736	0.398	0.583	95.937	2.321	0.360	0.078	0.063	0.031	0.022	0.053	0	0	0	0
04/03/2002	1035	0.777	0.389	0.585	95.737	2.404	0.404	0.096	0.076	0.035	0.023	0.059	0	0	0	0
04/02/2002	1036	0.781	0.404	0.586	95.627	2.466	0.414	0.098	0.081	0.038	0.025	0.065	0	0	0	0
04/01/2002	1036	0.760	0.436	0.586	95.613	2.455	0.429	0.098	0.082	0.038	0.026	0.064	0	0	0	0
03/31/2002	1035	0.756	0.456	0.585	95.688	2.400	0.410	0.092	0.077	0.036	0.024	0.060	0	0	0	0
03/30/2002	1033	0.762	0.710	0.587	95.369	2.425	0.427	0.094	0.083	0.039	0.028	0.063	0	0	0	0
03/29/2002	1037	0.806	0.435	0.587	95.462	2.536	0.438	0.103	0.090	0.039	0.026	0.065	0	0	0	0
03/28/2002	1036	0.751	0.431	0.585	95.671	2.434	0.407	0.096	0.079	0.038	0.025	0.068	0	0	0	0
03/27/2002	1037	0.730	0.454	0.586	95.575	2.513	0.421	0.097	0.080	0.038	0.025	0.066	0	0	0	0
03/26/2002	1037	0.780	0.441	0.586	95.489	2.545	0.435	0.101	0.086	0.037	0.024	0.061	0	0	0	0
03/25/2002	1036	0.762	0.431	0.585	95.658	2.430	0.425	0.095	0.080	0.035	0.023	0.060	0	0	0	0
03/24/2002	1036	0.771	0.409	0.585	95.683	2.401	0.426	0.104	0.087	0.037	0.023	0.060	0	0	0	0
03/23/2002	1034	0.751	0.397	0.584	95.875	2.334	0.379	0.087	0.071	0.033	0.021	0.052	0	0	0	0
03/22/2002	1032	0.660	0.424	0.581	96.122	2.209	0.342	0.076	0.063	0.031	0.021	0.053	0	0	0	0
03/21/2002	1034	0.653	0.423	0.582	96.006	2.292	0.362	0.081	0.069	0.034	0.024	0.056	0	0	0	0
03/20/2002	1035	0.647	0.441	0.583	95.892	2.346	0.388	0.087	0.073	0.037	0.027	0.061	0	0	0	0
03/19/2002	1034	0.683	0.463	0.583	95.793	2.441	0.362	0.078	0.066	0.035	0.025	0.055	0	0	0	0
03/18/2002	1034	0.733	0.417	0.583	95.839	2.409	0.349	0.078	0.066	0.033	0.023	0.052	0	0	0	0
03/17/2002	1034	0.696	0.423	0.583	95.901	2.381	0.349	0.077	0.065	0.033	0.023	0.052	0	0	0	0
03/15/2002	1036	0.783	0.473	0.586	95.383	2.689	0.401	0.091	0.074	0.033	0.021	0.052	0	0	0	0
03/14/2002	1039	0.820	0.448	0.588	95.185	2.748	0.478	0.115	0.092	0.038	0.022	0.054	0	0	0	0
03/13/2002	1034	0.811	0.439	0.585	95.584	2.554	0.361	0.084	0.068	0.031	0.019	0.049	0	0	0	0
03/12/2002	1033	0.827	0.468	0.585	95.517	2.637	0.327	0.070	0.058	0.028	0.018	0.050	0	0	0	0
03/11/2002	1032	0.794	0.472	0.584	95.628	2.560	0.325	0.070	0.058	0.027	0.018	0.049	0	0	0	0
03/10/2002	1032	0.812	0.451	0.584	95.742	2.438	0.320	0.075	0.063	0.029	0.019	0.052	0	0	0	0
03/09/2002	1031	0.760	0.446	0.582	95.896	2.389	0.293	0.067	0.057	0.027	0.017	0.048	0	0	0	0

03/08/2002	1032	0.718	0.452	0.582	95.872	2.446	0.304	0.065	0.057	0.026	0.017	0.045	0	0	0	0
03/07/2002	1031	0.783	0.436	0.583	95.883	2.383	0.301	0.066	0.059	0.027	0.017	0.044	0	0	0	0
03/06/2002	1030	0.737	0.420	0.581	96.106	2.240	0.289	0.064	0.056	0.026	0.018	0.044	0	0	0	0
03/05/2002	1029	0.726	0.433	0.581	96.117	2.284	0.252	0.055	0.049	0.024	0.016	0.044	0	0	0	0
03/04/2002	1031	0.748	0.449	0.582	95.945	2.335	0.304	0.065	0.058	0.029	0.021	0.047	0	0	0	0
03/03/2002	1031	0.770	0.432	0.583	95.898	2.360	0.315	0.068	0.059	0.029	0.020	0.048	0	0	0	0
03/02/2002	1030	0.760	0.395	0.581	96.094	2.258	0.285	0.062	0.054	0.027	0.018	0.046	0	0	0	0
03/01/2002	1031	0.718	0.417	0.582	95.992	2.365	0.303	0.061	0.054	0.026	0.018	0.046	0	0	0	0
02/28/2002	1031	0.742	0.437	0.582	95.890	2.468	0.271	0.055	0.049	0.024	0.017	0.048	0	0	0	0
02/27/2002	1034	0.727	0.443	0.584	95.729	2.507	0.346	0.075	0.066	0.032	0.022	0.053	0	0	0	0
02/26/2002	1035	0.695	0.467	0.584	95.632	2.618	0.352	0.072	0.065	0.030	0.022	0.048	0	0	0	0
02/25/2002	1033	0.751	0.471	0.584	95.553	2.687	0.332	0.061	0.055	0.027	0.020	0.043	0	0	0	0
02/24/2002	1035	0.769	0.500	0.586	95.394	2.715	0.387	0.071	0.067	0.029	0.021	0.048	0	0	0	0
02/23/2002	1034	0.790	0.479	0.585	95.482	2.660	0.357	0.069	0.061	0.029	0.021	0.052	0	0	0	0



# TexPar Energy, Inc.

## ENERGY MARKETERS

### Laboratory Analysis Report

Date: 06/04/02  
Client: City of Tallahassee  
Sample#:  
Terminal: Motiva  
Product: #2 H.S. Fuel Oil (Flint Hill Resources, Koch)

Test:	Results:	Method:
API @ 60F	✓ 37.4	ASTM D 4052
Viscosity	✓ 32 ssu @ 100F	ASTM D 445
Sulfur	✓ 0.35%	ASTM D 2622
Ash	✓ 0.01%	ASTM D 482
Flash Point	✓ 147F	ASTM D 93
Pour Point:	✓ <5	ASTM D 97
Water	✓ 0.01%	ASTM D 95
MMBTu/Barrel	✓ 5.91	ASTM D 240
Sediment, mass%:	✓ 0.005	ASTM D 473

Specs OK -  
David Byrne, WES.  
6/9/02

**ATTACHMENT EU02-03**  
**DESCRIPTION OF STACK SAMPLING FACILITIES**

### **Description of Stack Sampling Facilities**

There are no regulatory standards or applicable permit conditions that require periodic stack testing of Combustion Turbine No. 1 (EU02). The existing operating permit (0730003-001-AV) contains only one compliance testing condition which requires the performance of visible emissions tests in the fiscal years during which the individual turbine operates more than 400 hours. Therefore, stack sampling facilities are not available on the combustion turbine units at the City of Tallahassee Hopkins Generating Station.

**EU02-03**

**Arvan B. Hopkins Generating Station**

**July 1, 2002**

**ATTACHMENT EU02-04**  
**COMPLIANCE TEST REPORT**

Aryah B. Hopkins Generating Station  
July 1, 2002



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

SCOTT MADDOX  
Mayor  
STEVE MEISBURG  
Mayor Pro Tem

JOHN PAUL BAILEY  
Commissioner  
CHARLES E. BILLINGS  
Commissioner  
DEBBIE LIGHTSEY  
Commissioner

ANITA R. FAVORS  
City Manager  
GARY HERNDON  
Interim City Treasurer/Clerk

JAMES R. ENGLISH  
City Attorney  
SAM M. McCALL  
City Auditor

March 22, 2002

CERTIFIED MAIL No. 7001 0360 0002 0770 0434

Ms. Mary Jean Yon  
District Director  
Florida Department of Environmental Protection  
Northwest District  
160 Governmental Center  
Pensacola, Florida 32501-5794

Re: Results of Visible Emission Compliance Testing at Sam O. Purdom Generating Station,  
Permit No. 1290001-003 - AV, Emission Unit -008 & Arvah B. Hopkins Generating Station,  
Permit No. 0730003-001-AV, Emission Unit's -002 & -003)

Dear Ms. Yon:

Please find attached the results of visible emissions compliance testing performed at the City of Tallahassee's Sam O. Purdom Generating Station and Arvah B. Hopkins Generating Station for the above referenced units. The results indicate that Sam O. Purdom Emission Unit -008 meets compliance at a heat input of 197 million British thermal units per hour (mmBtu/hr) with a maximum six-minute average opacity of 10 percent. The results also indicate that Arvah B. Hopkins Emission Unit -002 meets compliance at a heat input of 207 mmBtu/hr with a maximum six-minute average opacity of 15 percent and Emission Unit -003 meets compliance at a heat input of 330 mmBtu/hr with a maximum six-minute average opacity of 5 percent.

It should be noted that these tests were performed pursuant to Specific Condition C.15(a)8 of Permit No. 0730003-001-AV and D.15(a)8 of Permit No. 1290001-003-AV which requires at least one visible emission test be conducted once per each five-year period, coinciding with the term of its air operation permit. Weather conditions in the Tallahassee region during the week of February 25<sup>th</sup> allowed the City an opportunity to complete some of these required visible emissions tests. However, a scheduled outage for Sam O. Purdom Emission Unit -009 prevented visible emission testing from being completed at that time. The City plans to complete visible emissions testing on Emission Unit -009 before the mid-year deadline for submitting the Title V renewal application.

If you have any questions regarding the attached test results, please feel free to contact myself at (850) 891-5534 or Jennette Curtis at (850) 891-8850.

Yours Truly,

  
R.E. McGarrah  
Electric Production Manager

Attachments

cc: Gerry Neubauer, FDEP Northwest District Office - Tallahassee, w/attachments  
Cynthia Barber, COT, Utility Business & Customer Services, w/attachments  
Gordon King, COT Purdom Generating Station, w/attachments  
Triveni Singh, COT Hopkins Generating Station, w/attachments  
Jennette Curtis, COT Environmental Resources, w/attachments  
Hal Avery, COT Environmental Resources, w/attachments

c:\work\h\A\purdomhvec02-02.doc

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One) Method 9 203A 203B Other: \_\_\_\_\_

Company Name City of Tallahassee  
 Facility Name Arva B. Hopkins Generating Station  
 Street Address 1125 Geddie Road  
 City Tallahassee State Florida Zip 32304

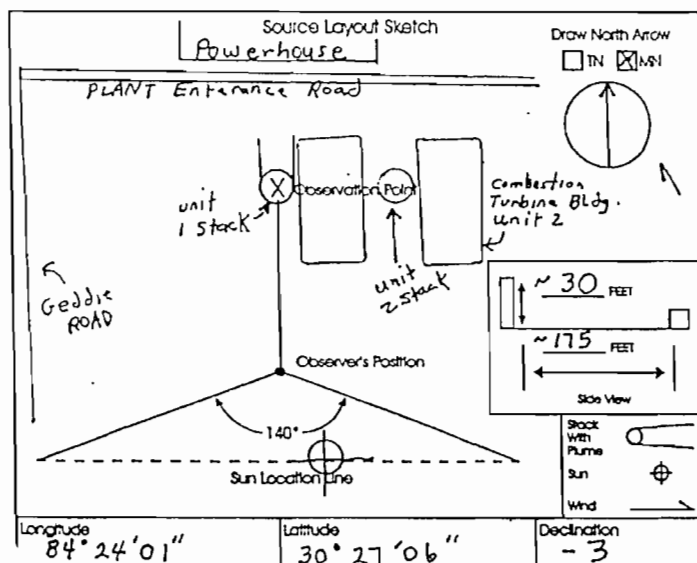
Process Combustion Turbine - Oil Fired Unit # -002 Operating Mode 207 mmBTU/hr. LHV  
 Control Equipment NONE Operating Mode N/A

Describe Emission Point  
Metal Rectangular Stack Located on west side of Combustion Turbine Building  
 Height of Emiss. Pt. Start ~30' End ~30' Height of Emiss. Pt. Rel. to Observer Start ~30' End ~30'  
 Distance to Emiss. Pt. Start ~175' End ~175' Direction to Emiss. Pt. (Degrees) Start 320 End 320

Vertical Angle to Obs. Pt. Start 11 End 11 Direction to Obs. Pt. (Degrees) Start 320 End 320  
 Distance and Direction to Observation Point from Emission Point  
 Start ~1 foot above stack End same

Describe Emissions  
 Start coning End coning  
 Emission Color black Water Droplet Plume ☐ Attached ☐ Detached ☐ None ☒  
 or black End black

Describe Plume Background  
 Start Plant Powerhouse End same  
 Background Color Green End Green Sky Conditions clear End clear  
 Wind Speed 3-6 End 3-6 Wind Direction NW End NW  
 Ambient Temp. 24 End 29 Wet Bulb Temp. 21 RH Percent 76



Additional Information  
 Permit No. 0730003-001-AV

Form Number HCTI1 Page 1 of 2  
 Continued on VEO Form Number HCTI2

Observation Date		Time Zone		Start Time	End Time
<u>2-28-02</u>		<u>EST</u>		<u>07:12</u>	<u>08:11</u>
Sec	0	15	30	45	Comments
1	15	15	15	15	
2	15	15	15	15	
3	15	15	15	15	
4	15	15	15	15	
5	15	15	15	15	
6	15	15	15	15	
7	15	15	15	15	
8	15	15	15	15	
9	15	15	15	15	
10	15	15	15	15	
11	15	15	15	15	
12	15	15	15	15	
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26	15	15	15	15	
27	15	15	15	15	
28	15	15	15	15	
29	15	15	15	15	
30	15	15	15	15	

Observer's Name (Print) HqL Avery  
 Observer's Signature Hae Avery Date 2-28-02  
 Organization City of Tallahassee  
 Certified By ETA Date 2-20-02

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One) Method 2 203A 203B Other: \_\_\_\_\_

Company Name City of Tallahassee  
 Facility Name Arvoh B. Hopkins Generating Station  
 Street Address 1125 Geddie Road  
 City Tallahassee State FL Zip 32304

Process \_\_\_\_\_ Unit # \_\_\_\_\_ Operating Mode \_\_\_\_\_  
 Control Equipment \_\_\_\_\_ Operating Mode \_\_\_\_\_

Describe Emission Point  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Height of Emiss. Pt. \_\_\_\_\_ Height of Emiss. Pt. Rel. to Observer \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
 Distance to Emiss. Pt. \_\_\_\_\_ Direction to Emiss. Pt. (Degrees) \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_

Vertical Angle to Obs. Pt. \_\_\_\_\_ Direction to Obs. Pt. (Degrees) \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
 Distance and Direction to Observation Point from Emission Point  
 Start \_\_\_\_\_ End \_\_\_\_\_

Describe Emissions  
 Start \_\_\_\_\_ End \_\_\_\_\_  
 Emission Color \_\_\_\_\_ Water Droplet Plume  
 Attached ☐ Detached ☐ None ☐

Describe Plume Background  
 Start \_\_\_\_\_ End \_\_\_\_\_  
 Background Color \_\_\_\_\_ Sky Conditions \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
 Wind Speed \_\_\_\_\_ Wind Direction \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
 Ambient Temp. \_\_\_\_\_ Wet Bulb Temp. \_\_\_\_\_ RH Percent \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_

Source Layout Sketch

Draw North Arrow  
☐ TN ☐ MN

Observer's Position

Observation Point

Sun Location Line

140°

FEET

FEET

Side View

Stack With Plume

Sun

Wind

Longitude \_\_\_\_\_ Latitude \_\_\_\_\_ Declination \_\_\_\_\_

Additional Information  
Permit No. 0730003-001-AV

Form Number HCT12 Page 2 of 2  
 Continued on VEO Form Number \_\_\_\_\_

Observation Date		Time Zone			Start Time	End Time
2-28-02		EST			07:12	08:11
Sec Min	0	15	30	45	Comments	
1	15	15	15	15		
2	15	15	15	15		
3	15	15	15	15		
4	15	15	15	15		
5	15	15	15	15		
6	15	15	15	15		
7	15	15	15	15		
8	15	15	15	15		
9	15	15	15	15		
10	15	15	15	15		
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19	15	15	15	15		
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21	15	15	15	15		
22	15	15	15	15		
23	15	15	15	15		
24	15	15	15	15		
25	15	15	15	15		
26	15	15	15	15		
27	15	15	15	15		
28	15	15	15	15		
29	15	15	15	15		
30	15	15	15	15		

Observer's Name (Print) Hal Avery  
 Observer's Signature Hal Avery Date 2-28-02  
 Organization City of Tallahassee  
 Certified By ETA Date 2-20-02

# ● VISIBLE EMISSIONS EVALUATOR

This is to certify that

*Hal Avery*

met the specifications of Federal Reference Method 9 and qualified as a visible emissions evaluator.

Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates of Raleigh, North Carolina. This certificate is valid for six months from date of issue.

292581

Certificate Number

Tampa, Florida

Location

February 20, 2002

Date of Issue

● Thomas Hore

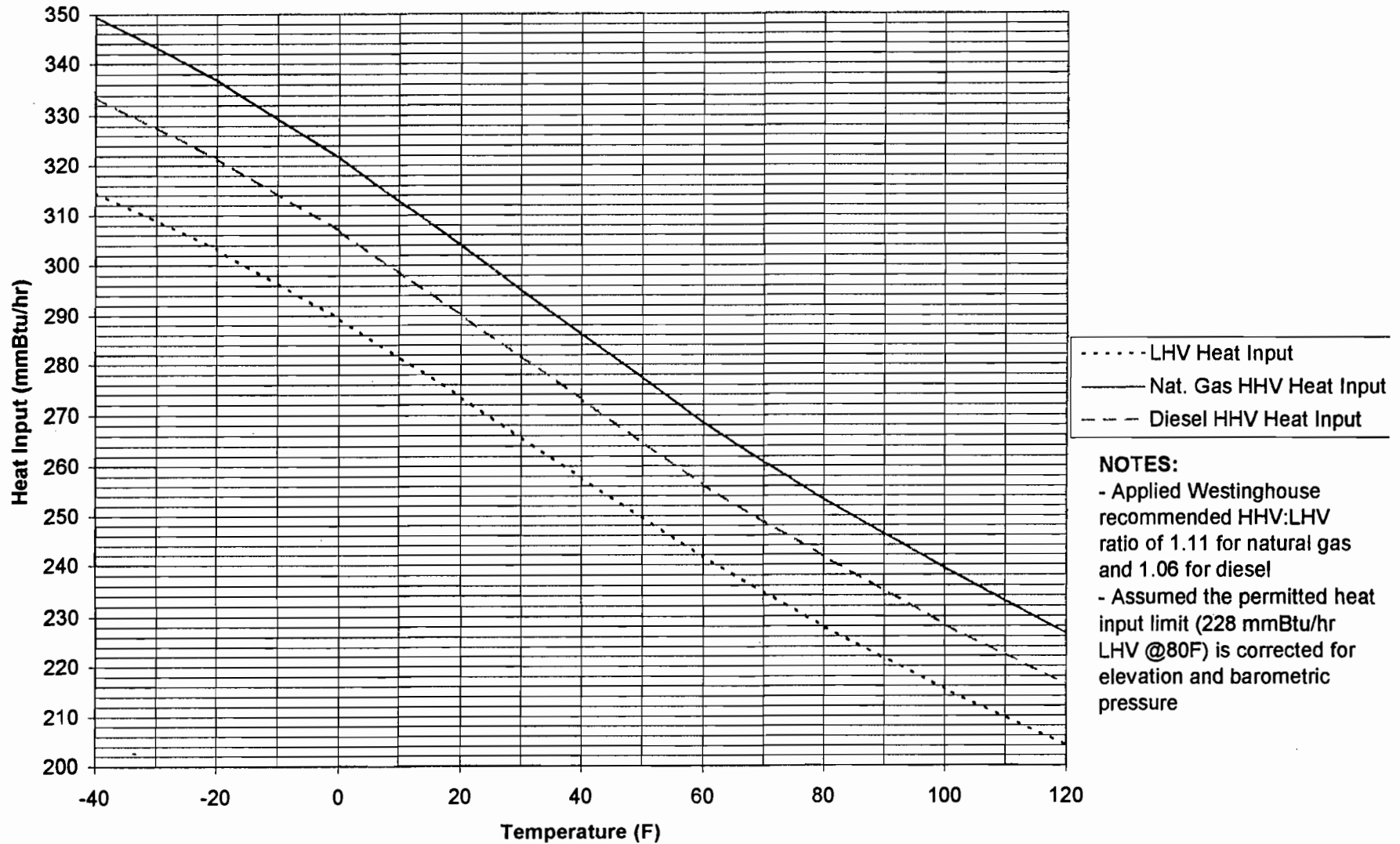
President

Michael W. Lunsford

Director of Training



**DRAFT**  
**Hopkins GT-1 Permitted Heat Input**



**ATTACHMENT EU02-05**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**

### **Procedures for Startup and Shutdown**

The City of Tallahassee follows best operational practices in the startup and shutdown of the gas turbines at the Hopkins Generating Station. Under normal conditions, standard operating guidelines are followed for startup and shutdown of the gas turbines. Under any abnormal condition of operation, best operational practices are followed to minimize emissions and to minimize the duration of any excess emissions.

EU02-05

Aryah B. Hopkins Generating Station

July 1, 2002

**ATTACHMENT EU02-06**  
**ALTERNATIVE METHODS OF OPERATION**

### Alternative Methods of Operation

Combustion Turbine No. 1 (EU02) is used as a peaking and emergency reserve unit. It is fueled by natural gas or fuel oil with a maximum of 0.4% sulfur. The alternative methods of operation (AMO) associated with the combustion turbine are related to the type of fuel being fired and rate of operation. The combustion turbine has a nominal production capacity of 16.47 MW. The current AMOs include the following:

- ❖ Natural Gas Firing – Maximum Rate of 228 mmBtu/hr (LHV @ 80° F)
- ❖ Fuel Oil Firing – Maximum Rate of 228 mmBtu/hr (LHV @ 80° F)
  - Fuel Grade No. 2

Note: Fuel additives typically of a magnesium oxide, hydroxide, sulfonate, or calcium nitrate origin may be used.

**ATTACHMENT EU02-07**  
**ADDITIONAL APPLICABLE REQUIREMENTS**

### Additional Applicable Requirements

*The City of Tallahassee requests the following revisions to be incorporated into the Title V Operating Permit:*

**C.13. Operating Rate During Testing.** Testing of emissions shall be conducted with each emissions unit operating at permitted capacity, which is defined as ~~95~~ 90 – 100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and ~~105~~ 110 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

[Rule 62-297.310(2), F.A.C. ~~A037-242824 Specific Condition No. 2; and, Applicant Request dated June 24, 1997.~~]

EU02-07

Aryah B. Hopkins Generating Station

July 1, 2002

## III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
<b>Combustion Turbine No. 2</b>			
4. Emissions Unit Identification Number:			
<input type="checkbox"/> No ID                                      ID: <b>003</b> <input type="checkbox"/> ID Unknown			
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
<b>A</b>	<b>N/A</b>	<b>49</b>	<input type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
<b>The maximum allowable operating rate is currently 446 mmBtu/hr (lower heating value) at an ambient temperature of 80 degrees Fahrenheit when firing fuel oil or natural gas. The maximum hours of operation are 7071 hours per year. This unit pre-dates PSD regulations.</b>			



Emissions Unit (EU-03) Information Section 3 of 5

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): **N/A**

2. Control Device or Method Code(s): **N/A**

Emissions Unit Details

1. Package Unit:  
Manufacturer: **Westinghouse**  
Model Number: **W251G**

2. Generator Nameplate Rating: **26.8** MW (nominal)

3. Incinerator Information:

Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION**  
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: <b>446 mmBtu/hr</b>
2. Maximum Incineration Rate: <b>N/A</b> lb/hr
3. Maximum Process or Throughput Rate: <b>N/A</b>
4. Maximum Production Rate: <b>N/A</b>
5. Requested Maximum Operating Schedule:
<div>hours/day</div> <div>days/week</div> <div>weeks/year</div> <div><b>7071 hours/year</b></div>
6. Operating Capacity/Schedule Comment (limit to 200 characters):
<p><b>The maximum heat input rate is based on the lower heating value at an ambient temperature of 80 degrees Fahrenheit. All calculations herein are based on the value in Field 1 above.</b></p> <p><b>On February 28, 2002, Combustion Turbine No. 2 was brought on-line for the purpose of visible emissions testing as required by Condition C.15. of Permit No. 0730003-001-AV. Due to a vibration detected by a sensor, permitted capacity was not achieved. Subsequent to the test, facility personnel inspected the unit and made appropriate repairs.</b></p> <p><b>On June 13, 2002, the unit was brought on-line again for the purpose of visible emissions testing (See Attachment EU03-04). The test was conducted at an ambient temperature of 95 degrees Fahrenheit. Exhaust temperatures of gas turbines are directly related to inlet temperatures and due to high ambient temperatures during the test, the exhaust temperature sensor limited operation to less than permitted capacity.</b></p> <p><b>As authorized by Rule 62-297.310(2), F.A.C., the Applicant requests maintaining the 446 mmBtu/hr lower heating value at 80 degrees Fahrenheit maximum heat input limit with a temporary restriction of 110% of the most recent compliance test until such time as the unit can be tested at permitted capacity.</b></p>

**C. EMISSIONS UNIT REGULATIONS**  
(Regulated Emissions Units Only)

**List of Applicable Regulations**

Rule 62-210.700(1),(4),(6) F.A.C.	
Rule 62-296.320(4)(b)1 F.A.C.	
Rule 62-297.310(2) F.A.C.	
Rule 62-297.310(4)(a)(2) (except a-c) F.A.C.	
Rule 62-297.310(7)(a)3,4a,8,9 F.A.C.	
Rule 62-297.310(8) F.A.C.	
40 CFR 63.50 – 63.55	
40 CFR 72.6(b)(1)	

Emissions Unit (EU-03) Information Section 3 of 5

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>EU-04</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>This emission point represents the exhaust for Combustion Turbine No. 2</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>39.2 feet</b>	7. Exit Diameter: <b>15.3 feet*</b>	
8. Exit Temperature: <b>874.4 °F</b>	9. Actual Volumetric Flow <b>707,144.2 acfm</b>	10. Water Vapor: <b>N/A</b>	
11. Maximum Dry Standard Flow Rate: <b>N/A</b>		12. Nonstack Emission Point Height: <b>N/A</b>	
13. Emission Point UTM Coordinates: <b>See Facility UTM Coordinates Previously Provided in this Application</b>			
14. Emission Point Comment (limit to 200 characters):  <b>*The stack for Combustion Turbine No. 2 is rectangular in shape. The value in Field 7 reflects the diameter of a circular stack with equal exit area (i.e. equivalent diameter). Values in Fields 8 &amp; 9 are based on design and subject to change based on factors including ambient conditions.</b>			

**Emissions Unit (EU-03) Information Section 3 of 5**

**E. SEGMENT (PROCESS/FUEL) INFORMATION**  
(All Emissions Units)

**Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Natural Gas</b>		
2. Source Classification Code (SCC): <b>20100201</b>		3. SCC Units: <b>mmSCF</b>
4. Maximum Hourly Rate: <b>0.479</b>	5. Maximum Annual Rate: <b>3384</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>0.1 (grains/cf)</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>932</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly and Annual Rates based on 7071 hours per year operation.</b>  <b>Calorific value provided is lower heating value for natural gas. This value is an estimate and subject to fluctuation.</b>		

**Segment Description and Rate:** Segment 2 of 2

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  <b>Fuel Oil No. 2</b>		
2. Source Classification Code (SCC): <b>20100101</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate: <b>3405</b>	5. Maximum Annual Rate: <b>2.40 x 10<sup>7</sup></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>0.4</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.131</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly and Annual Rates based on 7071 hours per year operation. Calorific value provided is lower heating value for No. 2 fuel oil. This value is an estimate and subject to fluctuation.</b>  <b>Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.</b>		

**F. EMISSIONS UNIT POLLUTANTS**  
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NO <sub>x</sub>			NS
PM			NS
PM <sub>10</sub>			NS
SO <sub>2</sub>			EL
VOC			NS
H106			NS
H107			NS
H133			NS
HAPS			NS

Emissions Unit (EU-03) Information Section 3 of 5

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>192.0 lb/hour                      679 tons/year</b>		4. Synthetically Limited? <b>[ X ]</b>	
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            _____ to _____ tons/year			
6. Emission Factor: Reference:		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>Fuel Oil Sulfur Content: 0.4% (wt)</b> <b>Fuel Oil Usage Rate: 2.38 x 10<sup>4</sup> lb/hr</b> <b>MW SO<sub>2</sub>: 64, MW O<sub>2</sub>: 32</b>  <b>lb/hr = (2.4 x 10<sup>4</sup> lb/hr) x (0.4/100) x (64/32) = 192.0 lb/hr</b>  <b>TPY = (192.0 lb/hr) x (7071 hrs/yr) x (ton/2000 lb) = 679 TPY</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>The current maximum permitted fuel sulfur content is 0.4% and the maximum hours of operation are 7071 hours per year. Potential emissions are set equal to the equivalent allowable emissions.</b>			

**Allowable Emissions** Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: <b>Other</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:  <b>0.4% sulfur (wt)</b>		4. Equivalent Allowable Emissions:  <b>192.0 lb/hour                      679 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>Records of fuel oil sulfur content as received from vendor are maintained and kept available for Department inspections.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions limitation entered in Field 1 is Specific Condition No. C-6 in current operating Permit No. 0730003-001-AV. This condition requires that the sulfur content of the oil not exceed 0.4% sulfur by weight.</b>			

**Emissions Unit (EU-03) Information Section 3 of 5**

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: [ <input checked="" type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: <b>&lt;20%</b> Exceptional Conditions: <b>100 %</b> Maximum Period of Excess Opacity Allowed: <b>60</b> min/hour	
4. Method of Compliance:  <b>EPA Method 9 in any fiscal year in which the turbine operates greater than 400 hours.</b>	
5. Visible Emissions Comment (limit to 200 characters):  <b>In accordance with Rule 62-210.700(1), F.A.C., excess emissions resulting from startup, shutdown, or malfunction are permitted providing that the duration of excess emissions be minimized but in no case to exceed two hours in any 24 hour period unless authorized by the Department for longer duration.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:**

1. Parameter Code: <b>N/A</b>	2. Pollutant(s): <b>N/A</b>
3. CMS Requirement: <b>N/A</b> [ <input type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other	
4. Monitor Information: <b>N/A</b> Manufacturer: Model Number: Serial Number:	
5. Installation Date: <b>N/A</b>	6. Performance Specification Test Date: <b>N/A</b>
7. Continuous Monitor Comment (limit to 200 characters): <b>N/A</b>	



Emissions Unit (EU-03) Information Section 3 of 5

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
(Regulated Emissions Units Only)

**Supplemental Requirements**

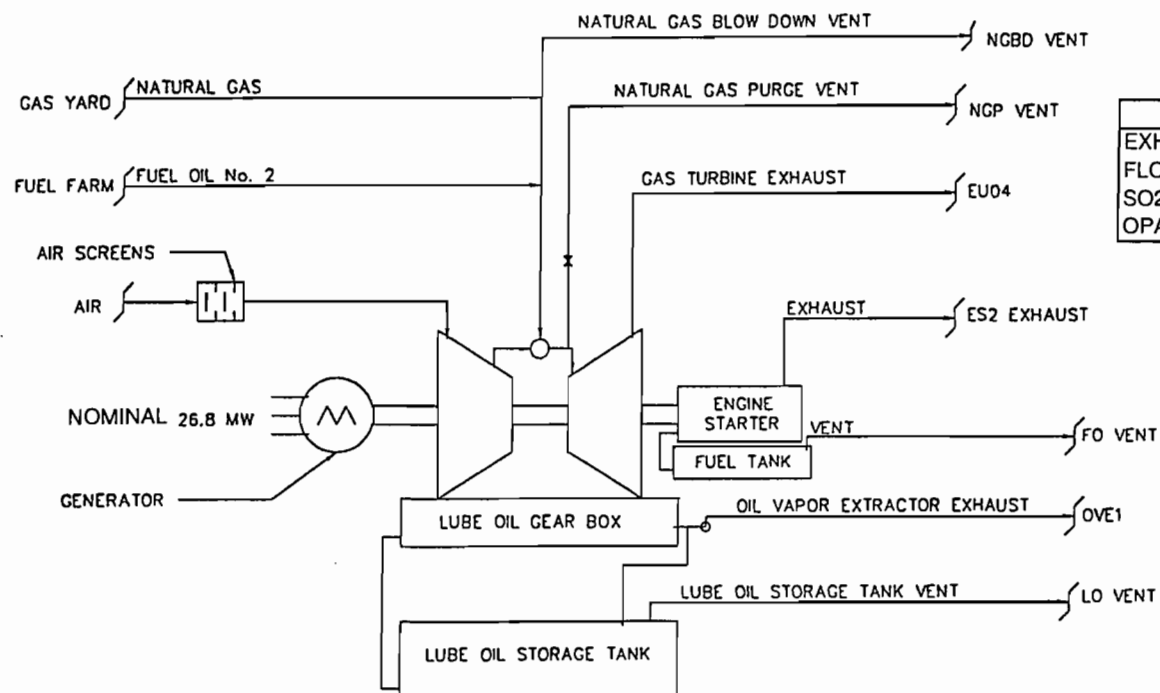
1. Process Flow Diagram [ X ] Attached, Document ID: <u>EU03-01</u> [   ] Not Applicable      [   ] Waiver Requested
2. Fuel Analysis or Specification [ X ] Attached, Document ID: <u>EU03-02</u> [   ] Not Applicable      [   ] Waiver Requested
3. Detailed Description of Control Equipment [   ] Attached, Document ID: _____      [ X ] Not Applicable      [   ] Waiver Requested
4. Description of Stack Sampling Facilities [ X ] Attached, Document ID: <u>EU03-03</u> [   ] Not Applicable      [   ] Waiver Requested
5. Compliance Test Report [ X ] Attached, Document ID: <u>EU03-04</u> [   ] Previously submitted, Date: _____ [   ] Not Applicable
6. Procedures for Startup and Shutdown [ X ] Attached, Document ID: <u>EU03-05</u> [   ] Not Applicable      [   ] Waiver Requested
7. Operation and Maintenance Plan [   ] Attached, Document ID: _____      [ X ] Not Applicable      [   ] Waiver Requested
8. Supplemental Information for Construction Permit Application [   ] Attached, Document ID: _____      [ X ] Not Applicable
9. Other Information Required by Rule or Statute [   ] Attached, Document ID: _____      [ X ] Not Applicable
10. Supplemental Requirements Comment:

**Emissions Unit (EU-03) Information Section 3 of 5**

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation [ <b>X</b> ] Attached, Document ID: <u>EU03-06</u> [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
13. Identification of Additional Applicable Requirements [ <b>X</b> ] Attached, Document ID: <u>EU03-07</u> [ ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____ [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____ [ <b>X</b> ] Not Applicable

**ATTACHMENT EU03-01**  
**FLOW DIAGRAM**



**CT2 - EXHAUST PARAMETERS**  
 EXHAUST TEMP. - 874.4 F  
 FLOW RATE - 707,144.2 ACFM  
 SO2 EMISSIONS - 192.0 LBS/HR  
 OPACITY < 20% EXCEPT AS ALLOWED

OPERATING DATA		
PARAMETER	NATURAL GAS	NO. 2 FUEL OIL
HEAT RATE (MMBUT/HR)	446	446
FEED RATE (MMCF/HR)	0.479	N / A
FEED RATE (KGAL/HR)	N / A	3.4
FEED RATE (LB/HR)	N / A	24,000

CITY OF TALLAHASSEE, FLORIDA  
 TITLE V PERMIT APPLICATION  
 HOPKINS GENERATING STATION

SIMPLIFIED PROCESS FLOW DIAGRAM  
 COMBUSTION TURBINE NO. 2

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A  
 DATE 04/30/96

BY: DJC  
 CKD' BY: CJT  
 REV. BY: CJT

CAD FILE NO.  
 HCT2.DWG  
 FIGURE NO.  
 EU04-02

**ATTACHMENT EU03-02**  
**FUEL ANALYSIS OR SPECIFICATION**

### **Fuel Analysis or Specification**

The attached fuel sample analyses represent "typical" characterizations for the fuels combusted in EU03, Combustion Turbine No. 2. Maximum values could be higher. The fuels represented in the analyses are natural gas and #2 fuel oil.

**EU03-02**

**Arvah B. Hopkins Generating Station**

**July 1, 2002**

## daily chromatograph

date requested: May 23 2002 9:59AM

The data contained herein is preliminary data and therefore should be used for contemporaneous operational purposes only and may be subject to change at month end. This data is provided to assist our customers in tracking their gas usage as closely as possible on a real-time basis. The information contained on this web page is not to be considered billable information. This data will be subject to additional verification and possible modification prior to billing.

Chromatograph Report For: 8031 - PERRY STREAM #2																
download																
Date	BTU	CO2	N2	Grav	Methan	Ethane	Propan	ibutan	Nbutan	Ipenta	Npenta	C6	C7	H2	Helium	Oxygen
05/23/2002	1036	0.905	0.354	0.587	95.665	2.284	0.440	0.115	0.097	0.042	0.026	0.072	0	0	0	0
05/22/2002	1036	0.854	0.400	0.586	95.555	2.442	0.432	0.107	0.091	0.036	0.022	0.060	0	0	0	0
05/21/2002	1041	0.865	0.339	0.590	95.264	2.549	0.585	0.148	0.125	0.042	0.023	0.059	0	0	0	0
05/20/2002	1043	0.831	0.427	0.591	94.930	2.841	0.577	0.139	0.125	0.042	0.025	0.064	0	0	0	0
05/19/2002	1042	0.872	0.383	0.590	95.111	2.649	0.583	0.144	0.125	0.042	0.025	0.065	0	0	0	0
05/18/2002	1042	0.813	0.401	0.590	95.082	2.751	0.559	0.134	0.118	0.044	0.027	0.071	0	0	0	0
05/17/2002	1046	0.817	0.386	0.593	94.826	2.865	0.654	0.162	0.137	0.050	0.029	0.073	0	0	0	0
05/16/2002	1044	0.786	0.386	0.591	95.045	2.760	0.615	0.147	0.125	0.044	0.026	0.065	0	0	0	0
05/15/2002	1042	0.734	0.410	0.588	95.218	2.740	0.541	0.123	0.108	0.039	0.024	0.062	0	0	0	0
05/14/2002	1043	0.742	0.431	0.590	95.066	2.821	0.561	0.131	0.114	0.042	0.026	0.065	0	0	0	0
05/13/2002	1041	0.725	0.417	0.588	95.283	2.733	0.500	0.114	0.099	0.040	0.025	0.064	0	0	0	0
05/12/2002	1041	0.737	0.410	0.588	95.336	2.671	0.493	0.114	0.100	0.042	0.027	0.070	0	0	0	0
05/11/2002	1045	0.725	0.395	0.590	94.905	3.052	0.557	0.122	0.110	0.041	0.026	0.067	0	0	0	0
05/10/2002	1047	0.765	0.373	0.592	94.767	3.087	0.600	0.139	0.122	0.046	0.028	0.072	0	0	0	0
05/09/2002	1046	0.744	0.374	0.591	94.937	2.938	0.596	0.137	0.123	0.046	0.030	0.074	0	0	0	0
05/08/2002	1042	0.734	0.398	0.589	95.191	2.775	0.530	0.126	0.108	0.042	0.026	0.068	0	0	0	0
05/07/2002	1040	0.720	0.407	0.587	95.408	2.651	0.471	0.112	0.097	0.040	0.026	0.069	0	0	0	0
05/06/2002	1040	0.681	0.408	0.586	95.497	2.609	0.466	0.112	0.095	0.041	0.026	0.067	0	0	0	0
05/05/2002	1041	0.749	0.408	0.588	95.239	2.756	0.501	0.118	0.097	0.041	0.026	0.065	0	0	0	0
05/04/2002	1038	0.791	0.401	0.587	95.384	2.681	0.439	0.096	0.081	0.037	0.025	0.065	0	0	0	0
05/03/2002	1034	0.821	0.412	0.585	95.609	2.514	0.382	0.080	0.070	0.033	0.022	0.058	0	0	0	0
05/02/2002	1033	0.766	0.403	0.583	95.926	2.294	0.356	0.080	0.068	0.031	0.021	0.053	0	0	0	0
05/01/2002	1032	0.757	0.406	0.582	95.979	2.292	0.332	0.074	0.062	0.029	0.020	0.050	0	0	0	0
04/30/2002	1032	0.784	0.420	0.583	95.877	2.308	0.362	0.080	0.070	0.030	0.020	0.049	0	0	0	0
04/29/2002	1033	0.784	0.421	0.584	95.868	2.286	0.376	0.086	0.078	0.031	0.021	0.050	0	0	0	0
04/28/2002	1033	0.797	0.431	0.584	95.812	2.294	0.391	0.090	0.080	0.032	0.021	0.052	0	0	0	0
04/27/2002	1034	0.790	0.439	0.585	95.677	2.414	0.395	0.092	0.082	0.034	0.022	0.056	0	0	0	0
04/26/2002	1035	0.779	0.433	0.585	95.678	2.407	0.407	0.095	0.083	0.035	0.023	0.059	0	0	0	0
04/25/2002	1034	0.720	0.421	0.584	95.853	2.331	0.401	0.088	0.079	0.033	0.022	0.054	0	0	0	0
04/24/2002	1033	0.711	0.417	0.582	95.981	2.286	0.361	0.079	0.066	0.029	0.019	0.050	0	0	0	0
04/23/2002	1034	0.718	0.410	0.583	95.838	2.391	0.391	0.082	0.072	0.029	0.019	0.050	0	0	0	0

04/22/2002	1034	0.699	0.428	0.583	95.824	2.417	0.372	0.082	0.073	0.032	0.022	0.052	0	0	0	0
04/21/2002	1034	0.763	0.432	0.584	95.785	2.374	0.375	0.088	0.076	0.032	0.022	0.054	0	0	0	0
04/20/2002	1033	0.732	0.438	0.583	95.885	2.320	0.362	0.084	0.074	0.032	0.022	0.052	0	0	0	0
04/19/2002	1034	0.742	0.436	0.584	95.751	2.419	0.372	0.087	0.077	0.034	0.024	0.057	0	0	0	0
04/18/2002	1033	0.750	0.423	0.584	95.860	2.334	0.364	0.086	0.075	0.032	0.022	0.053	0	0	0	0
04/17/2002	1034	0.721	0.443	0.583	95.836	2.377	0.360	0.083	0.073	0.031	0.021	0.053	0	0	0	0
04/16/2002	1033	0.763	0.404	0.583	95.866	2.350	0.356	0.084	0.070	0.032	0.020	0.054	0	0	0	0
04/15/2002	1032	0.752	0.412	0.583	95.951	2.296	0.337	0.080	0.067	0.031	0.020	0.053	0	0	0	0
04/14/2002	1032	0.771	0.399	0.583	95.969	2.272	0.340	0.080	0.067	0.031	0.020	0.051	0	0	0	0
04/13/2002	1032	0.747	0.402	0.582	96.052	2.231	0.329	0.076	0.064	0.029	0.020	0.051	0	0	0	0
04/12/2002	1032	0.777	0.413	0.583	95.920	2.310	0.329	0.078	0.065	0.032	0.021	0.055	0	0	0	0
04/11/2002	1033	0.829	0.418	0.584	95.753	2.391	0.353	0.080	0.066	0.032	0.022	0.057	0	0	0	0
04/10/2002	1034	0.818	0.432	0.585	95.582	2.546	0.362	0.083	0.068	0.032	0.022	0.055	0	0	0	0
04/09/2002	1033	0.788	0.431	0.584	95.699	2.483	0.352	0.081	0.066	0.030	0.020	0.050	0	0	0	0
04/08/2002	1032	0.781	0.415	0.583	95.922	2.305	0.337	0.080	0.066	0.029	0.018	0.047	0	0	0	0
04/07/2002	1034	0.778	0.427	0.584	95.773	2.378	0.378	0.086	0.074	0.032	0.021	0.052	0	0	0	0
04/06/2002	1032	0.809	0.416	0.584	95.824	2.367	0.351	0.075	0.062	0.029	0.020	0.048	0	0	0	0
04/05/2002	1035	0.839	0.395	0.586	95.577	2.497	0.419	0.093	0.074	0.034	0.022	0.050	0	0	0	0
04/04/2002	1033	0.736	0.398	0.583	95.937	2.321	0.360	0.078	0.063	0.031	0.022	0.053	0	0	0	0
04/03/2002	1035	0.777	0.389	0.585	95.737	2.404	0.404	0.096	0.076	0.035	0.023	0.059	0	0	0	0
04/02/2002	1036	0.781	0.404	0.586	95.627	2.466	0.414	0.098	0.081	0.038	0.025	0.065	0	0	0	0
04/01/2002	1036	0.760	0.436	0.586	95.613	2.455	0.429	0.098	0.082	0.038	0.026	0.064	0	0	0	0
03/31/2002	1035	0.756	0.456	0.585	95.688	2.400	0.410	0.092	0.077	0.036	0.024	0.060	0	0	0	0
03/30/2002	1033	0.762	0.710	0.587	95.369	2.425	0.427	0.094	0.083	0.039	0.028	0.063	0	0	0	0
03/29/2002	1037	0.806	0.435	0.587	95.462	2.536	0.438	0.103	0.090	0.039	0.026	0.065	0	0	0	0
03/28/2002	1036	0.751	0.431	0.585	95.671	2.434	0.407	0.096	0.079	0.038	0.025	0.068	0	0	0	0
03/27/2002	1037	0.730	0.454	0.586	95.575	2.513	0.421	0.097	0.080	0.038	0.025	0.066	0	0	0	0
03/26/2002	1037	0.780	0.441	0.586	95.489	2.545	0.435	0.101	0.086	0.037	0.024	0.061	0	0	0	0
03/25/2002	1036	0.762	0.431	0.585	95.658	2.430	0.425	0.095	0.080	0.035	0.023	0.060	0	0	0	0
03/24/2002	1036	0.771	0.409	0.585	95.683	2.401	0.426	0.104	0.087	0.037	0.023	0.060	0	0	0	0
03/23/2002	1034	0.751	0.397	0.584	95.875	2.334	0.379	0.087	0.071	0.033	0.021	0.052	0	0	0	0
03/22/2002	1032	0.660	0.424	0.581	96.122	2.209	0.342	0.076	0.063	0.031	0.021	0.053	0	0	0	0
03/21/2002	1034	0.653	0.423	0.582	96.006	2.292	0.362	0.081	0.069	0.034	0.024	0.056	0	0	0	0
03/20/2002	1035	0.647	0.441	0.583	95.892	2.346	0.388	0.087	0.073	0.037	0.027	0.061	0	0	0	0
03/19/2002	1034	0.683	0.463	0.583	95.793	2.441	0.362	0.078	0.066	0.035	0.025	0.055	0	0	0	0
03/18/2002	1034	0.733	0.417	0.583	95.839	2.409	0.349	0.078	0.066	0.033	0.023	0.052	0	0	0	0
03/17/2002	1034	0.696	0.423	0.583	95.901	2.381	0.349	0.077	0.065	0.033	0.023	0.052	0	0	0	0
03/15/2002	1036	0.783	0.473	0.586	95.383	2.689	0.401	0.091	0.074	0.033	0.021	0.052	0	0	0	0
03/14/2002	1039	0.820	0.448	0.588	95.185	2.748	0.478	0.115	0.092	0.038	0.022	0.054	0	0	0	0
03/13/2002	1034	0.811	0.439	0.585	95.584	2.554	0.361	0.084	0.068	0.031	0.019	0.049	0	0	0	0
03/12/2002	1033	0.827	0.468	0.585	95.517	2.637	0.327	0.070	0.058	0.028	0.018	0.050	0	0	0	0
03/11/2002	1032	0.794	0.472	0.584	95.628	2.560	0.325	0.070	0.058	0.027	0.018	0.049	0	0	0	0
03/10/2002	1032	0.812	0.451	0.584	95.742	2.438	0.320	0.075	0.063	0.029	0.019	0.052	0	0	0	0
03/09/2002	1031	0.760	0.446	0.582	95.896	2.389	0.293	0.067	0.057	0.027	0.017	0.048	0	0	0	0



03/08/2002	1032	0.718	0.452	0.582	95.872	2.446	0.304	0.065	0.057	0.026	0.017	0.045	0	0	0	0
03/07/2002	1031	0.783	0.436	0.583	95.883	2.383	0.301	0.066	0.059	0.027	0.017	0.044	0	0	0	0
03/06/2002	1030	0.737	0.420	0.581	96.106	2.240	0.289	0.064	0.056	0.026	0.018	0.044	0	0	0	0
03/05/2002	1029	0.726	0.433	0.581	96.117	2.284	0.252	0.055	0.049	0.024	0.016	0.044	0	0	0	0
03/04/2002	1031	0.748	0.449	0.582	95.945	2.335	0.304	0.065	0.058	0.029	0.021	0.047	0	0	0	0
03/03/2002	1031	0.770	0.432	0.583	95.898	2.360	0.315	0.068	0.059	0.029	0.020	0.048	0	0	0	0
03/02/2002	1030	0.760	0.395	0.581	96.094	2.258	0.285	0.062	0.054	0.027	0.018	0.046	0	0	0	0
03/01/2002	1031	0.718	0.417	0.582	95.992	2.365	0.303	0.061	0.054	0.026	0.018	0.046	0	0	0	0
02/28/2002	1031	0.742	0.437	0.582	95.890	2.468	0.271	0.055	0.049	0.024	0.017	0.048	0	0	0	0
02/27/2002	1034	0.727	0.443	0.584	95.729	2.507	0.346	0.075	0.066	0.032	0.022	0.053	0	0	0	0
02/26/2002	1035	0.695	0.467	0.584	95.632	2.618	0.352	0.072	0.065	0.030	0.022	0.048	0	0	0	0
02/25/2002	1033	0.751	0.471	0.584	95.553	2.687	0.332	0.061	0.055	0.027	0.020	0.043	0	0	0	0
02/24/2002	1035	0.769	0.500	0.586	95.394	2.715	0.387	0.071	0.067	0.029	0.021	0.048	0	0	0	0
02/23/2002	1034	0.790	0.479	0.585	95.482	2.660	0.357	0.069	0.061	0.029	0.021	0.052	0	0	0	0

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# **TexPar Energy, inc.**

## **ENERGY MARKETERS**

### Laboratory Analysis Report

Date: 06/04/02

Client: City of Tallahassee

Sample#:

Terminal: Motiva

Product: #2 H.S. Fuel Oil (Flint Hill Resources, Koch)

Test:	Results:	Method:
API @ 60F	✓ 37.4	ASTM D 4052
Viscosity	✓ 32 ssu @ 100F	ASTM D 445
Sulfur	✓ 0.35%	ASTM D 2622
Ash	✓ 0.01%	ASTM D 482
Flash Point	✓ 147F	ASTM D 93
Pour Point:	✓ <5	ASTM D 97
Water	✓ 0.01%	ASTM D 95
MMBTu/Barrel	✓ 5.91	ASTM D 240
Sediment, mass%:	✓ 0.005	ASTM D 473

specs OK -

David Byrne, WES.  
6/9/02

**ATTACHMENT EU03-03**  
**DESCRIPTION OF STACK SAMPLING FACILITIES**

### **Description of Stack Sampling Facilities**

There are no regulatory standards or applicable permit conditions that require periodic stack testing of Combustion Turbine No. 2 (EU03). The existing operating permit (070003-001-AV) contains only one compliance testing condition which requires the performance of visible emissions tests in the fiscal years during which the individual turbine operates more than 400 hours. Therefore, stack sampling facilities are not available on the combustion turbine units at the City of Tallahassee Hopkins Generating Station.

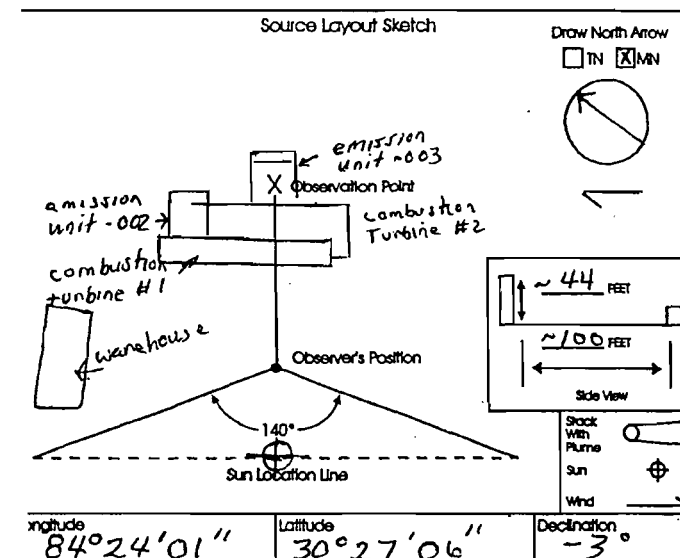
EU03-03

Arwah B. Hopkins Generating Station

July 1, 2002

**ATTACHMENT EU03-04**  
**COMPLIANCE TEST REPORT**

Arva B. Hopkins Generating Station  
July 1, 2002

EPA  
VISIBLE EMISSION OBSERVATION FORM 1Method Used (Circle One)  
Method 9 203A 203B Other: \_\_\_\_\_Agency Name  
City of Tallahassee  
Name  
Arrah B. Hopkins Generating Station  
Street Address  
1125 Geddie Road  
City  
Tallahassee State  
FL Zip  
32304Process  
Combustion Turbine-Oil Fired Unit # 003 Operating Mode 360 mm BTU/hr.  
Control Equipment  
none Operating Mode n/aDescribe Emission Point  
metal rectangular stack located on west side of Combustion Turbine Building  
Height of Emiss. Pt. Rel. to Observer  
Start ~44' End ~44'  
Distance to Emiss. Pt. Direction to Emiss. Pt. (Degrees)  
Start ~100' End ~100' Start N 46° End N 46°Elevated Angle to Obs. Pt. Direction to Obs. Pt. (Degrees)  
Start 13 End 13 Start N 46° End N 46°  
Distance and Direction to Observation Point from Emission Point  
Start 1' above stack End 1' above stackDescribe Emissions  
Start Coning End Coning  
Emission Color Water Droplet Plume  
Start black End black Attached ☐ Detached ☐ None ☒Describe Plume Background  
Start SKY End SKY  
Ground Color Sky Conditions  
Start blue End blue Start Scattered End Scattered  
Wind Speed Wind Direction  
Start 3-6 End 3-6 Start W End W  
Ambient Temp. Wet Bulb Temp. RH Percent  
Start 95 End 95 77 41Additional Information  
Permit No. 0730003-001-AVForm Number H C T 2 3 Page 1 of 2  
Continued on VEO Form Number H C T 2 4

Observation Date		Time Zone			Start Time	End Time
6-13-02		EST			14:05	15:04
Sec Min	0	15	30	45	Comments	
1	10	10	10	10		
2	10	10	10	10		
3	10	10	10	10		
4	10	10	10	10		
5	10	10	10	10		
6	10	10	10	10		
7	10	10	10	10		
8	10	10	10	10		
9	10	10	10	10		
10	10	10	10	10		
11	10	10	10	10		
12	10	10	10	10		
13	10	10	10	10		
14	10	10	10	10		
15	10	10	10	10		
16	10	10	10	10		
17	10	10	10	10		
18	10	10	10	10		
19	10	10	10	10		
20	10	10	10	10		
21	10	10	10	10		
22	10	10	10	10		
23	10	10	10	10		
24	10	10	10	10		
25	10	10	10	10		
26	10	10	10	10		
27	10	10	10	10		
28	10	10	10	10		
29	10	10	10	10		
30	10	10	10	10		

Observer's Name (Print)  
Hal Avery  
Observer's Signature  
Hal Avery Date  
6-13-02  
Organization  
City of Tallahassee  
Certified By  
ETA Date  
2-20-02

# EPA VISIBLE EMISSION OBSERVATION FORM 1

BEST AVAILABLE COPY

Method Used (Circle One) Method 9 203A 203B Other: \_\_\_\_\_

Form Number	H C T 2 4	Page	2	Of	2
Continued on VEO Form Number					

Company Name City of Tallahassee  
 Name Arvab B. Hopkins Generating Station  
 Street Address 1125 Geddie Road  
 City Tallahassee State FL Zip 32304

Process \_\_\_\_\_ Unit # \_\_\_\_\_ Operating Mode \_\_\_\_\_  
 Control Equipment \_\_\_\_\_ Operating Mode \_\_\_\_\_

Describe Emission Point \_\_\_\_\_

Height of Emiss. Pt. \_\_\_\_\_ Height of Emiss. Pt. Rel. to Observer \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
 Distance to Emiss. Pt. \_\_\_\_\_ Direction to Emiss. Pt. (Degrees) \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_

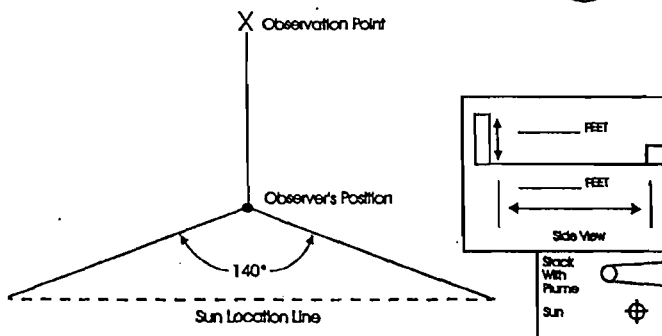
Altitude Angle to Obs. Pt. \_\_\_\_\_ Direction to Obs. Pt. (Degrees) \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
 Distance and Direction to Observation Point from Emission Point \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_

Describe Emissions \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_  
 Emission Color \_\_\_\_\_ Water Droplet Plume \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Attached ☐ Detached ☐ None ☐

Describe Plume Background \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_  
 Plume Color \_\_\_\_\_ Sky Conditions \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
 Wind Speed \_\_\_\_\_ Wind Direction \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
 Ambient Temp. \_\_\_\_\_ Wet Bulb Temp. \_\_\_\_\_ RH Percent \_\_\_\_\_  
 Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_

Source Layout Sketch

Draw North Arrow  
☐ TN ☐ MN



Altitude \_\_\_\_\_ Latitude \_\_\_\_\_ Declination \_\_\_\_\_

Additional Information  
 Permit No. 0730003-001-AV

Observation Date		Time Zone				Start Time	End Time
6-13-02		EST				14:05	15:04
Sec	0	15	30	45	Comments		
1	10	10	10	10			
2	10	10	10	10			
3	10	10	10	10			
4	10	10	10	10			
5	10	10	10	10			
6	10	10	10	10			
7	10	10	10	10			
8	10	10	10	10			
9	10	10	10	10			
10	10	10	10	10			
11	10	10	10	10			
12	10	10	10	10			
13	10	10	10	10			
14	10	10	10	10			
15	10	10	10	10			
16	10	10	10	10			
17	10	10	10	10			
18	10	10	10	10			
19	10	10	10	10			
20	10	10	10	10			
21	10	10	10	10			
22	10	10	10	10			
23	10	10	10	10			
24	10	10	10	10			
25	10	10	10	10			
26	10	10	10	10			
27	10	10	10	10			
28	10	10	10	10			
29	10	10	10	10			
30	10	10	10	10			

Observer's Name (Print) Hal Avery  
 Observer's Signature Hal Avery Date 6-13-02  
 Organization City of Tallahassee  
 Certified By ETA Date 2-20-02

OPR.1

# VISIBLE EMISSIONS EVALUATOR

This is to certify that

*Hal Avery*

met the specifications of Federal Reference Method 9 and qualified as a visible emissions evaluator.

Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates of Raleigh, North Carolina. This certificate is valid for six months from date of issue.

292581

Certificate Number

Tampa, Florida

Location

February 20, 2002

Date of Issue

Thomas Hore

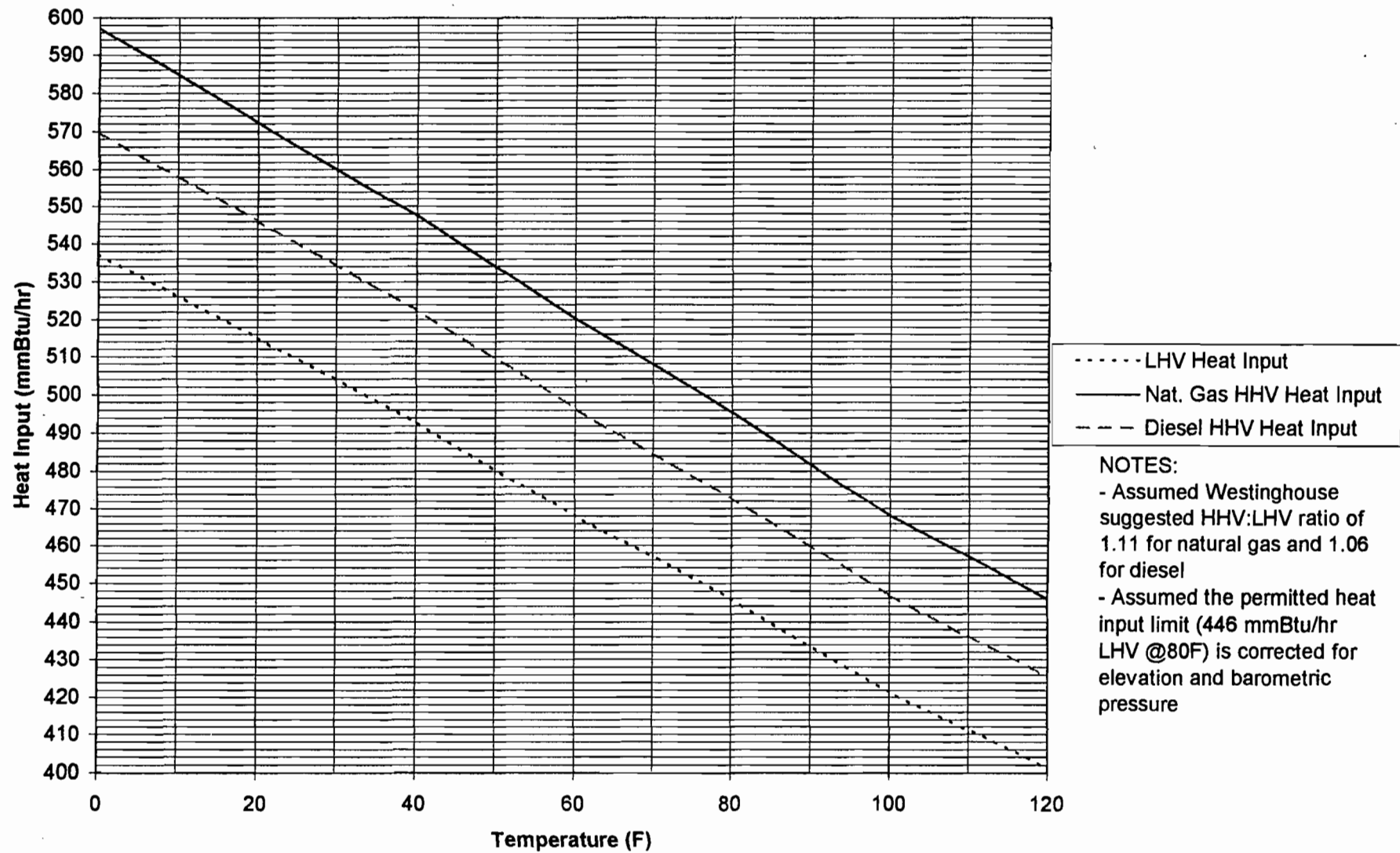
President

Michael W. Longford

Director of Training



**DRAFT**  
**Hopkins GT-2 Permitted Heat Input**



**ATTACHMENT EU03-05**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**

### **Procedures for Startup and Shutdown**

The City of Tallahassee follows best operational practices in the startup and shutdown of the gas turbines at the Hopkins Generating Station. Under normal conditions, standard operating guidelines are followed for startup and shutdown of the gas turbines. Under any abnormal condition of operation, best operational practices are followed to minimize emissions and to minimize the duration of any excess emissions.

**EU03-05**

**Arva B. Hopkins Generating Station**  
**July 1, 2002**

**ATTACHMENT EU03-06**  
**ALTERNATIVE METHODS OF OPERATION**

### Alternative Methods of Operation

Combustion Turbine No. 2 (EU03) is used as a peaking and emergency reserve unit. It is fueled by natural gas or fuel oil with a maximum of 0.4% sulfur. The alternative methods of operation (AMO) associated with the combustion turbine are related to the type of fuel being fired and rate of operation. The combustion turbine has a nominal production capacity of 26.8 MW. The current AMOs include the following:

- ❖ Natural Gas Firing – Maximum Rate of 446 mmBtu/hr (LHV @ 80° F)
- ❖ Fuel Oil Firing – Maximum Rate of 446 mmBtu/hr (LHV @ 80° F)
  - Fuel Grade No. 2

Note: Fuel additives typically of a magnesium oxide, hydroxide, sulfonate, or calcium nitrate origin may be used.

**ATTACHMENT EU03-07**  
**ADDITIONAL APPLICABLE REQUIREMENTS**

### **Additional Applicable Requirements**

*The City of Tallahassee requests the following revisions to be incorporated into the Title V Operating Permit:*

**C.13. Operating Rate During Testing.** Testing of emissions shall be conducted with each emissions unit operating at permitted capacity, which is defined as ~~95~~ 90 – 100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and ~~105~~ 110 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

[Rule 62-297.310(2), F.A.C. ~~A037-242824 Specific Condition No. 2; and, Applicant Request dated June 24, 1997.~~]

**EU03-07**

**Aryah B. Hopkins Generating Station**

**July 1, 2002**

## III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
(All Emissions Units)

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
<b>Boiler No. 1</b>			
4. Emissions Unit Identification Number:			
<input type="checkbox"/> No ID		ID: <b>001</b>	
		<input type="checkbox"/> ID Unknown	
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
<b>A</b>	<b>N/A</b>	<b>49</b>	<input checked="" type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
<b>The maximum allowable heat input is currently 903 mmBtu/hr. The maximum hours of operation are 8760 hours per year. This unit pre-dates PSD regulations.</b>			



Emissions Unit (EU-04) Information Section 4 of 5

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method): <b>N/A</b>
2. Control Device or Method Code(s): <b>N/A</b>

Emissions Unit Details

1. Package Unit: Manufacturer: <b>Foster Wheeler Corporation</b> Model Number: <b>SF-5</b>
2. Generator Nameplate Rating: <b>75</b> MW (nominal)
3. Incinerator Information: <b>N/A</b> Dwell Temperature: °F Dwell Time: seconds Incinerator Afterburner Temperature: °F

**B. EMISSIONS UNIT CAPACITY INFORMATION**  
(Regulated Emissions Units Only)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate:	903 mmBtu/hr	
2. Maximum Incineration Rate:	N/A	
3. Maximum Process or Throughput Rate:	N/A	
4. Maximum Production Rate:	N/A	
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
All calculations herein are based on the value in Field 1 above.		

**C. EMISSIONS UNIT REGULATIONS**  
**(Regulated Emissions Units Only)**

**List of Applicable Regulations**

Rule 62-210.700(1),(2),(3),(4),(6) F.A.C.	40 CFR 72.23
Rule 62-214.300 F.A.C.	40 CFR 72.30(a),(c),(d)
Rule 62-214.350(2),(3),(5),(6) F.A.C.	40 CFR 72.32
Rule 62-214.430(1) F.A.C.	40 CFR 72.40(a),(c),(d)
Rule 62-296.405(1)(a),(b),(c)1,h F.A.C.	40 CFR 72.51
Rule 62-296.405(1)(f)1,b,(e)1,2,3;(f)1a(i)	40 CFR 72.90
Rule 62-297.310(1) F.A.C.	40 CFR 73.33(c)(d)(e)
Rule 62-297.310(2)(b) F.A.C.	40 CFR 73.35(c)
Rule 62-297.310(3) F.A.C.	40 CFR 75.4
Rule 62-297.310(4) F.A.C.	40 CFR 75.5
Rule 62-297.310(5) F.A.C.	40 CFR 75.10(a)(1),(a)(2),(a)(3)(ii)(b)-(d),(f),(g)
Rule 62-297.310(6)(a),(c)-(g) F.A.C.	40 CFR 75.11(d)(2)
Rule 62-297.310(7)(a)2,3,4,5,9,(c) F.A.C.	40 CFR 75.12(a),(b)
Rule 62-297.310(8) F.A.C.	40 CFR 75.13(a),(b)
40 CFR 72.9(a),(b),(c)(1)-(3)(iii),(e)-(g)	40 CFR 75.14(c)
40 CFR 72.20(a)-(c)	40 CFR 75.20(a)(5),(b),(c),(d),(g)
40 CFR 72.21	40 CFR 75.21(a),(c)
40 CFR 72.22	

List of Applicable Regulations (cont.)

40 CFR 75.22	40 CFR 75.64
40 CFR 75.24	40 CFR 75, Appendix A
40 CFR 75.30(a)(3),(d)(2)	40 CFR 75, Appendix B
40 CFR 75.31	40 CFR 75, Appendix C
40 CFR 75.32	40 CFR 75, Appendix D
40 CFR 75.33(a),(c)	40 CFR, Appendix G(2),(4)
40 CFR 75.53	40 CFR 75, Appendix H (reserved)
40 CFR 75.54 [except (f)]	40 CFR 77.3
40 CFR 75.58(c)	40 CFR 77.5(b)
40 CFR 75.59	40 CFR 77.6
40 CFR 75.60	
40 CFR 75.61	
40 CFR 75.62	
40 CFR 75.63	

Emissions Unit (EU-04) Information Section 4 of 5

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>EU05</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>This emission point represents the exhaust for Boiler No. 1</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>200 feet</b>	7. Exit Diameter: <b>11.0 feet</b>	
8. Exit Temperature: <b>260.6 °F</b>	9. Actual Volumetric Flow <b>223,755 acfm</b>	10. Water Vapor: <b>N/A</b>	
11. Maximum Dry Standard Flow Rate: <b>N/A</b>		12. Nonstack Emission Point Height: <b>N/A</b>	
13. Emission Point UTM Coordinates: <b>See Facility UTM Coordinates Previously Provided in this Application</b>			
14. Emission Point Comment (limit to 200 characters):  <b>Values in Field 8 and 9 are based on design and subject to change based on factors including ambient conditions.</b>			

Emissions Unit (EU-04) Information Section 4 of 5

E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)

**Segment Description and Rate:** Segment 1 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Natural Gas</b>		
2. Source Classification Code (SCC): <b>10100601</b>		3. SCC Units: <b>mmSCF</b>
4. Maximum Hourly Rate: <b>0.868</b>	5. Maximum Annual Rate: <b>7.61 x 10<sup>3</sup></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>*See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>1040 (assumed gross calorific value)</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly and Annual Rates based on 8760 hours per year operation.</b>  <b>*This unit is operated in accordance with allowable limits contained in its operating permit. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.</b>  <b>The value in Field 9 is an estimate subject to fluctuation.</b>		

**Segment Description and Rate:** Segment 2 of 6

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  <b>No. 6 Fuel Oil</b>		
2. Source Classification Code (SCC): <b>10100401</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate: <b>6020</b>	5. Maximum Annual Rate: <b>52.7 x10<sup>6</sup></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>*See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.15 (assumed gross calorific value)</b>
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly and Annual Rates based on 8760 hours per year operation.</b>  <b>*This unit is operated in accordance with allowable limits contained in its operating permit. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.</b>  <b>The value in Field 9 is an estimate subject to fluctuation.</b>  <b>Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.</b>		

# **Emissions Unit (EU-04) Information Section 4 of 5**

## **Segment Description and Rate: Segment 3 of 6**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>On-Spec Used Oil</b>		
2. Source Classification Code (SCC): <b>10101302</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate: <b>6020</b>	5. Maximum Annual Rate: <b>10,000</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>*See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.15</b> (assumed gross calorific value)
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly and Annual Rates based on specific conditions A.1 and A.35(b) of Operating Permit No. 0730003-001-AV, respectively.</b>  <b>*This unit is operated in accordance with allowable limits contained in its operating permit. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.</b>  <b>The value in Field 9 is an estimate subject to fluctuation.</b>		

## **Segment Description and Rate: Segment 4 of 6**

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Distillate Fuel Oils</b>		
2. Source Classification Code (SCC): <b>10100501</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate: <b>6893</b>	5. Maximum Annual Rate: <b>6.04 x10<sup>7</sup></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>*See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.131</b> (assumed gross calorific value)
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly and Annual Rates based on 8760 hours per year operation.</b>  <b>*This unit is operated in accordance with allowable limits contained in its operating permit. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.</b>  <b>The value in Field 9 is an estimate subject to fluctuation.</b>  <b>Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.</b>		

# **Emissions Unit (EU-04) Information Section 4 of 5**

## **Segment Description and Rate: Segment 5 of 6**

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  <b>Liquid Propane</b>		
2. Source Classification Code (SCC): <b>10101002</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate: <b>9978</b>	5. Maximum Annual Rate: <b><math>8.74 \times 10^7</math></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>*See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.0905</b> (assumed gross calorific value)
10. Segment Comment (limit to 200 characters):  <p><b>This application requests authorization to fire liquid propane.</b></p> <p><b>Maximum Hourly and Annual Rates based on 8760 hours per year operation.</b></p> <p><b>*This unit is operated in accordance with allowable limits contained in its operating permit. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.</b></p> <p><b>The value in Field 9 is an estimate subject to fluctuation.</b></p>		

## **Segment Description and Rate: Segment 6 of 6**

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  <b>Any mixture of Fuel Oil No.6 (Residual Oil), On-Spec Used Oil, Distillate Fuel Oil, Liquid Propane or Natural Gas</b>		
2. Source Classification Code (SCC): *		3. SCC Units: <b>Gallons / mmSCF*</b>
4. Maximum Hourly Rate: <b>6020 / 0.868*</b>	5. Maximum Annual Rate: <b><math>5.27 \times 10^7</math> / <math>7.61 \times 10^3</math>*</b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.15 / 1040*</b> (assumed gross calorific value)



10. Segment Comment (limit to 200 characters):

**\*See information previously provided in this application for each individual segment.**

**The purpose of this segment is to indicate the potential to co-fire multiple fuels. In order to provide maximum hourly rates for the co-firing of a liquid and gaseous fuel, the maximum of each fuel is provided.**

**This unit is operated in accordance with allowable limits contained in its operating permit. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.**

**The value in Field 9 is an estimate subject to fluctuation.**

**Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.**

**F. EMISSIONS UNIT POLLUTANTS**  
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			NS
NO <sub>x</sub>			NS
PM			EL
PM <sub>10</sub>			NS
SO <sub>2</sub>			EL
VOC			NS
Pb			NS
H106			NS
H107			NS
H113			NS
H133			NS
H151			NS
HAPS			NS

# Emissions Unit (EU04) Information Section 4 of 5

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

**Pollutant Detail Information:** Pollutant 1 of 2

### Potential/Fugitive Emissions

1. Pollutant Emitted: <b>SO<sub>2</sub></b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>677.25 lb/hour</b> <b>2966 tons/year</b>		4. Synthetically Limited? [ <b>X</b> ]	
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            _____ to _____ tons/year			
6. Emission Factor: <b>0.75 lb/mmBtu</b> Reference: <b>FDEP Operating Permit No. 0730003-001-AV</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>Allowable Emission Rate: 0.75 lb/mmBtu</b> <b>Max Heat Input Rate: 903 mmBtu/hr</b>  <b>lb/hr = (0.75 lb/mmBtu) x (903 mmBtu/hr) = 677.25 lb/hr</b>  <b>TPY = (677.25 lb/hr) x (8760 hrs/yr) x (ton/2000 lb) = 2966 TPY</b>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>The current maximum allowable emission rate is 0.75 lb/mmBtu and the maximum heat input rate is 903 mmBtu/hr. Potential SO<sub>2</sub> emissions are estimated utilizing these allowable rates and the maximum annual operating schedule of 8760 hours.</b>			

### Allowable Emissions

1. Basis for Allowable Emissions Code: <b>Other</b>		2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:  <b>0.75 lb/mmBtu</b>		4. Equivalent Allowable Emissions:  <b>677.25 lb/hour</b> <b>2966 tons/year</b>	
5. Method of Compliance (limit to 60 characters):  <b>Records of fuel oil sulfur content as received by vendor are maintained and kept available for Department inspections.</b>			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions limitation entered in Field 3 reflects the maximum allowable emission rate listed in Specific Condition No. A.10 in current operating Permit No. 0730003-001-AV. The federally enforceable limitation established through the SIP is 1.87 lb/mmBtu.</b>			

# Emissions Unit (EU04) Information Section 4 of 5

## Pollutant Detail Information: Pollutant 2 of 2

### Potential/Fugitive Emissions

1. Pollutant Emitted: <b>PM</b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>270.9 lb/hour                      494.4 tons/year</b>	4. Synthetically Limited? <input type="checkbox"/>
5. Range of Estimated Fugitive Emissions: [ ] 1            [ ] 2            [ ] 3            _____ to _____ tons/year	
6. Emission Factor: <b>0.1 lb/mmBtu (0.3 lb/mmBtu during boiler cleaning or load change)</b>  Reference: <b>62-296.405(1)(b) and 62-210.700, F.A.C.</b>	7. Emissions Method Code: <b>0</b>
<p>8. Calculation of Emissions (limit to 600 characters):</p> <p><b>Allowable Emission Rate: 0.1 lb/mmBtu and 0.3 lb/mmBtu during excess emissions</b>  <b>Max Heat Input Rate: 903 mmBtu/hr</b></p> <p><b>A PM emission rate of 0.3 lb/mmBtu is allowed for 3 hr in a 24 hr period, or 12.5 % of the time</b></p> <p><b>lb/hr (potential) = 903 mmBtu/hr x 0.3 lb/mmBtu = 270.9 lb/hr</b></p> <p><b>lb/hr (annual average) = (1 - .125) x (903 mmBtu/hr x 0.1 lb/mmBtu) + (.125) x (903 mmBtu/hr x 0.3 lb/mmBtu)</b>  <b>lb/hr=112.88</b></p> <p><b>TPY = (112.88 lb/hr) x (8760 hrs/yr) x (ton/2000 lb) = 494.4 TPY</b></p>	
<p>9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):</p> <p><b>The current maximum allowable emission rate is 0.1 lb/mmBtu and 0.3 lb/mmBtu during excess emissions for load changes and boiler cleaning. The maximum heat input rate is 903 mmBtu/hr. Hourly potential PM emissions are estimated based on 0.3 lb/mmBtu emission rate and 903 mmBtu/hr heat input. Annual potential PM emissions are estimated utilizing these allowable rates, the maximum annual operating schedule of 8760 hours, and an estimate occurrence of excess emissions of 12.5 %.</b></p>	

### Allowable Emissions

1. Basis for Allowable Emissions Code: <b>Rule</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:  <b>0.1 lb/mmBtu</b> <b>(0.3 lb/mmBtu during boiler cleaning / load change)</b>	4. Equivalent Allowable Emissions:  <b>90.3 lb/hour                      494.4 tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Methods 1,2,3,5, or 17 in any fiscal year in which the fossil fuel system generator burns more than 400 hours of fuel oil other than startup.</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions limitations entered in Field 3 reflects the maximum allowable emission rate listed in Specific Condition No. A.7 in current operating Permit No. 0730003-001-AV. These requirements are found in Rules 62-296.405(1)(b) and 62-210.700(3), F.A.C.</b>	

Emissions Unit (EU04) Information Section 4 of 5

**H. VISIBLE EMISSIONS INFORMATION**  
(Only Regulated Emissions Units Subject to a VE Limitation)

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: [ <input checked="" type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: <b>20 %</b> Exceptional Conditions: <b>27 %</b> Maximum Period of Excess Opacity Allowed: <b>6 min/hour</b>	
4. Method of Compliance:  <b>Annual VE testing in accordance with EPA Method 9 using the maximum fuel oil to gas ratio used during the fiscal year.</b>	
5. Visible Emissions Comment (limit to 200 characters):	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: <b>VE60</b>	2. Basis for Allowable Opacity: [ <input checked="" type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other
3. Requested Allowable Opacity: Normal Conditions: <b>60 %</b> Exceptional Conditions: <b>100 %</b> Maximum Period of Excess Opacity Allowed: <b>*See Field 5</b>	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):  <b>In accordance with Rule 62-210.700(1)(2),&amp;(3), F.A.C., excess emissions are allowed at the following opacities for the associated time periods:</b>  <b>60% - 3 hrs / 24 hrs for boiler cleaning and load change</b> <b>100% - 2 hrs / 24 hrs for malfunction</b> <b>100% - unlimited for start-up and shut down</b>  <b>The City is also requesting relief for excess opacity when fuel switching or purging oil from fuel oil burners. Purging occurs whenever a burner is removed from service.</b>	

Emissions Unit (EU04) Information Section 4 of 5

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:** Continuous Monitor 1 of 4

1. Parameter Code: <b>Flow</b>	2. Pollutant(s): <b>Gas Fuel Flow</b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: <b>Daniel</b> Model Number: <b>Flange Neck</b> Serial Number: <b>513395</b>	
5. Installation Date: <b>12-16-94</b>	6. Performance Specification Test Date: <b>9-7-01</b>
7. Continuous Monitor Comment (limit to 200 characters):  <b>Orifice Meter: Installed in accordance with Rule 62-214.320, F.A.C., Rule 62-214.330, F.A.C., and 40 CFR Part 75 Appendix D, Section 2.1</b>  <b>Note: The serial number is correct as of June 2002, but is subject to change.</b>	

**Continuous Monitoring System:** Continuous Monitor 2 of 4

1. Parameter Code: <b>Flow</b>	2. Pollutant(s): <b>Oil Fuel Flow Monitor (3)</b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: <b>MicroMotion</b> Model Number: <b>DS300</b> Serial Number: <b>175266, 171875 &amp; 197391</b>	
5. Installation Date: <b>12-16-94</b>	6. Performance Specification Test Date: <b>2-28-02</b>
7. Continuous Monitor Comment (limit to 200 characters):  <b>Coriolis Type Meter: Installed in accordance with Rule 62-214.320, F.A.C., Rule 62-214.330, F.A.C., and 40 CFR Part 75 Appendix D, Section 2.1</b>  <b>Note: The serial numbers are correct as of June 2002, but are subject to change.</b>  <b>The City maintains three (3) certified and calibrated fuel oil flow monitors. Only two (2) are placed in service at any one time.</b>	

**Emissions Unit (EU04) Information Section 4 of 5****Continuous Monitoring System:** Continuous Monitor 3 of 4

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NOx</b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: <b>Teco</b> Model Number: <b>41H</b> Serial Number: <b>41H69745-364</b>	
5. Installation Date: <b>08-01</b>	6. Performance Specification Test Date: <b>8-23-01</b>
7. Continuous Monitor Comment (limit to 200 characters):  <b>Installed in accordance with Rule 62-214.320, F.A.C., Rule 62-214.330, F.A.C., and 40 CFR Part 75 Appendix D, Section 2.1</b>  <b>Note: The serial numbers are correct as of June 2002, but are subject to change.</b>	

**Continuous Monitoring System:** Continuous Monitor 4 of 4

1. Parameter Code: <b>CO<sub>2</sub></b>	2. Pollutant(s): <b>Carbon Dioxide</b>
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: <b>Teco</b> Model Number: <b>41CHL</b> Serial Number: <b>41CHL68205-359</b>	
5. Installation Date: <b>08-01</b>	6. Performance Specification Test Date: <b>08-23-01</b>
7. Continuous Monitor Comment (limit to 200 characters):  <b>Installed in accordance with Rule 62-214.320, F.A.C., Rule 62-214.330, F.A.C., and 40 CFR Part 75 Appendix D, Section 2.1</b>  <b>Note: The serial numbers are correct as of June 2002, but are subject to change.</b>	

Emissions Unit (EU04) Information Section 4 of 5

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
(Regulated Emissions Units Only)

**Supplemental Requirements**

1. Process Flow Diagram [ <b>X</b> ] Attached, Document ID: <b>EU04-01</b> [   ] Not Applicable      [   ] Waiver Requested
2. Fuel Analysis or Specification [ <b>X</b> ] Attached, Document ID: <b>EU04-02</b> [   ] Not Applicable      [   ] Waiver Requested
3. Detailed Description of Control Equipment [   ] Attached, Document ID: _____      [ <b>X</b> ] Not Applicable      [   ] Waiver Requested
4. Description of Stack Sampling Facilities [ <b>X</b> ] Attached, Document ID: <b>EU04-03</b> [   ] Not Applicable      [   ] Waiver Requested
5. Compliance Test Report [   ] Attached, Document ID: _____ [ <b>X</b> ] Previously submitted, Date: <b>October 19, 2001</b> [   ] Not Applicable
6. Procedures for Startup and Shutdown [ <b>X</b> ] Attached, Document ID: <b>EU04-04</b> [   ] Not Applicable      [   ] Waiver Requested
7. Operation and Maintenance Plan [   ] Attached, Document ID: _____      [ <b>X</b> ] Not Applicable      [   ] Waiver Requested
8. Supplemental Information for Construction Permit Application [   ] Attached, Document ID: _____      [ <b>X</b> ] Not Applicable
9. Other Information Required by Rule or Statute [   ] Attached, Document ID: _____      [ <b>X</b> ] Not Applicable
10. Supplemental Requirements Comment:



Emissions Unit (EU04) Information Section 4 of 5

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation [ <b>X</b> ] Attached, Document ID: <b><u>EU04-05</u></b> [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
13. Identification of Additional Applicable Requirements [ <b>X</b> ] Attached, Document ID: <b><u>EU04-06</u></b> [ ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ <b>X</b> ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ <b>X</b> ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: <b><u>EU04-07</u></b>  [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____  [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____  [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____  [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____  [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____  [ ] Not Applicable

**ATTACHMENT EU04-01**  
**FLOW DIAGRAM**



**ATTACHMENT EU04-02**  
**FUEL ANALYSIS OR SPECIFICATION**

Aryah B. Hopkins Generating Station  
July 1, 2002

### **Fuel Analysis or Specification**

The attached fuel sample analyses represent "typical" characterizations for the fuels combusted in EU04, Boiler No. 1. Maximum values could be higher. The fuels represented in the analyses are natural gas, fuel oil, and on-spec waste oil.

EU04-02

Aryah B. Hopkins Generating Station

July 1, 2002

## daily chromatograph

date requested: May 23 2002 9:59AM

The data contained herein is preliminary data and therefore should be used for contemporaneous operational purposes only and may be subject to change at month end. This data is provided to assist our customers in tracking their gas usage as closely as possible on a real-time basis. The information contained on this web page is not to be considered billable information. This data will be subject to additional verification and possible modification prior to billing.

Chromatograph Report For: 8031 - PERRY STREAM #2															
download															
Date	BTU	CO2	N2	Grav	Methan	Ethane	Propan	Ibutan	Nbutan	Ipenta	Npenta	C6	C7	H2	Oxygen
05/23/2002	1036	0.905	0.354	0.587	95.665	2.284	0.440	0.115	0.097	0.042	0.026	0.072	0	0	0
05/22/2002	1036	0.854	0.400	0.586	95.555	2.442	0.432	0.107	0.091	0.036	0.022	0.060	0	0	0
05/21/2002	1041	0.865	0.339	0.590	95.264	2.549	0.585	0.148	0.125	0.042	0.023	0.059	0	0	0
05/20/2002	1043	0.831	0.427	0.591	94.930	2.841	0.577	0.139	0.125	0.042	0.025	0.064	0	0	0
05/19/2002	1042	0.872	0.383	0.590	95.111	2.649	0.583	0.144	0.125	0.042	0.025	0.065	0	0	0
05/18/2002	1042	0.813	0.401	0.590	95.082	2.751	0.559	0.134	0.118	0.044	0.027	0.071	0	0	0
05/17/2002	1046	0.817	0.386	0.593	94.826	2.865	0.654	0.162	0.137	0.050	0.029	0.073	0	0	0
05/16/2002	1044	0.786	0.386	0.591	95.045	2.760	0.615	0.147	0.125	0.044	0.026	0.065	0	0	0
05/15/2002	1042	0.734	0.410	0.588	95.218	2.740	0.541	0.123	0.108	0.039	0.024	0.062	0	0	0
05/14/2002	1043	0.742	0.431	0.590	95.066	2.821	0.561	0.131	0.114	0.042	0.026	0.065	0	0	0
05/13/2002	1041	0.725	0.417	0.588	95.283	2.733	0.500	0.114	0.099	0.040	0.025	0.064	0	0	0
05/12/2002	1041	0.737	0.410	0.588	95.336	2.671	0.493	0.114	0.100	0.042	0.027	0.070	0	0	0
05/11/2002	1045	0.725	0.395	0.590	94.905	3.052	0.557	0.122	0.110	0.041	0.026	0.067	0	0	0
05/10/2002	1047	0.765	0.373	0.592	94.767	3.087	0.600	0.139	0.122	0.046	0.028	0.072	0	0	0
05/09/2002	1046	0.744	0.374	0.591	94.937	2.938	0.596	0.137	0.123	0.046	0.030	0.074	0	0	0
05/08/2002	1042	0.734	0.398	0.589	95.191	2.775	0.530	0.126	0.108	0.042	0.026	0.068	0	0	0
05/07/2002	1040	0.720	0.407	0.587	95.408	2.651	0.471	0.112	0.097	0.040	0.026	0.069	0	0	0
05/06/2002	1040	0.681	0.408	0.586	95.497	2.609	0.466	0.112	0.095	0.041	0.026	0.067	0	0	0
05/05/2002	1041	0.749	0.408	0.588	95.239	2.756	0.501	0.118	0.097	0.041	0.026	0.065	0	0	0
05/04/2002	1038	0.791	0.401	0.587	95.384	2.681	0.439	0.096	0.081	0.037	0.025	0.065	0	0	0
05/03/2002	1034	0.821	0.412	0.585	95.609	2.514	0.382	0.080	0.070	0.033	0.022	0.058	0	0	0
05/02/2002	1033	0.766	0.403	0.583	95.926	2.294	0.356	0.080	0.068	0.031	0.021	0.053	0	0	0
05/01/2002	1032	0.757	0.406	0.582	95.979	2.292	0.332	0.074	0.062	0.029	0.020	0.050	0	0	0
04/30/2002	1032	0.784	0.420	0.583	95.877	2.308	0.362	0.080	0.070	0.030	0.020	0.049	0	0	0
04/29/2002	1033	0.784	0.421	0.584	95.868	2.286	0.376	0.086	0.078	0.031	0.021	0.050	0	0	0
04/28/2002	1033	0.797	0.431	0.584	95.812	2.294	0.391	0.090	0.080	0.032	0.021	0.052	0	0	0
04/27/2002	1034	0.790	0.439	0.585	95.677	2.414	0.395	0.092	0.082	0.034	0.022	0.056	0	0	0
04/26/2002	1035	0.779	0.433	0.585	95.678	2.407	0.407	0.095	0.083	0.035	0.023	0.059	0	0	0
04/25/2002	1034	0.720	0.421	0.584	95.853	2.331	0.401	0.088	0.079	0.033	0.022	0.054	0	0	0
04/24/2002	1033	0.711	0.417	0.582	95.981	2.286	0.361	0.079	0.066	0.029	0.019	0.050	0	0	0
04/23/2002	1034	0.718	0.410	0.583	95.838	2.391	0.391	0.082	0.072	0.029	0.019	0.050	0	0	0

04/22/2002	1034	0.699	0.428	0.583	95.824	2.417	0.372	0.082	0.073	0.032	0.022	0.052	0	0	0	0
04/21/2002	1034	0.763	0.432	0.584	95.785	2.374	0.375	0.088	0.076	0.032	0.022	0.054	0	0	0	0
04/20/2002	1033	0.732	0.438	0.583	95.885	2.320	0.362	0.084	0.074	0.032	0.022	0.052	0	0	0	0
04/19/2002	1034	0.742	0.436	0.584	95.751	2.419	0.372	0.087	0.077	0.034	0.024	0.057	0	0	0	0
04/18/2002	1033	0.750	0.423	0.584	95.860	2.334	0.364	0.086	0.075	0.032	0.022	0.053	0	0	0	0
04/17/2002	1034	0.721	0.443	0.583	95.836	2.377	0.360	0.083	0.073	0.031	0.021	0.053	0	0	0	0
04/16/2002	1033	0.763	0.404	0.583	95.866	2.350	0.356	0.084	0.070	0.032	0.020	0.054	0	0	0	0
04/15/2002	1032	0.752	0.412	0.583	95.951	2.296	0.337	0.080	0.067	0.031	0.020	0.053	0	0	0	0
04/14/2002	1032	0.771	0.399	0.583	95.969	2.272	0.340	0.080	0.067	0.031	0.020	0.051	0	0	0	0
04/13/2002	1032	0.747	0.402	0.582	96.052	2.231	0.329	0.076	0.064	0.029	0.020	0.051	0	0	0	0
04/12/2002	1032	0.777	0.413	0.583	95.920	2.310	0.329	0.078	0.065	0.032	0.021	0.055	0	0	0	0
04/11/2002	1033	0.829	0.418	0.584	95.753	2.391	0.353	0.080	0.066	0.032	0.022	0.057	0	0	0	0
04/10/2002	1034	0.818	0.432	0.585	95.582	2.546	0.362	0.083	0.068	0.032	0.022	0.055	0	0	0	0
04/09/2002	1033	0.788	0.431	0.584	95.699	2.483	0.352	0.081	0.066	0.030	0.020	0.050	0	0	0	0
04/08/2002	1032	0.781	0.415	0.583	95.922	2.305	0.337	0.080	0.066	0.029	0.018	0.047	0	0	0	0
04/07/2002	1034	0.778	0.427	0.584	95.773	2.378	0.378	0.086	0.074	0.032	0.021	0.052	0	0	0	0
04/06/2002	1032	0.809	0.416	0.584	95.824	2.367	0.351	0.075	0.062	0.029	0.020	0.048	0	0	0	0
04/05/2002	1035	0.839	0.395	0.586	95.577	2.497	0.419	0.093	0.074	0.034	0.022	0.050	0	0	0	0
04/04/2002	1033	0.736	0.398	0.583	95.937	2.321	0.360	0.078	0.063	0.031	0.022	0.053	0	0	0	0
04/03/2002	1035	0.777	0.389	0.585	95.737	2.404	0.404	0.096	0.076	0.035	0.023	0.059	0	0	0	0
04/02/2002	1036	0.781	0.404	0.586	95.627	2.466	0.414	0.098	0.081	0.038	0.025	0.065	0	0	0	0
04/01/2002	1036	0.760	0.436	0.586	95.613	2.455	0.429	0.098	0.082	0.038	0.026	0.064	0	0	0	0
03/31/2002	1035	0.756	0.456	0.585	95.688	2.400	0.410	0.092	0.077	0.036	0.024	0.060	0	0	0	0
03/30/2002	1033	0.762	0.710	0.587	95.369	2.425	0.427	0.094	0.083	0.039	0.028	0.063	0	0	0	0
03/29/2002	1037	0.806	0.435	0.587	95.462	2.536	0.438	0.103	0.090	0.039	0.026	0.065	0	0	0	0
03/28/2002	1036	0.751	0.431	0.585	95.671	2.434	0.407	0.096	0.079	0.038	0.025	0.068	0	0	0	0
03/27/2002	1037	0.730	0.454	0.586	95.575	2.513	0.421	0.097	0.080	0.038	0.025	0.066	0	0	0	0
03/26/2002	1037	0.780	0.441	0.586	95.489	2.545	0.435	0.101	0.086	0.037	0.024	0.061	0	0	0	0
03/25/2002	1036	0.762	0.431	0.585	95.658	2.430	0.425	0.095	0.080	0.035	0.023	0.060	0	0	0	0
03/24/2002	1036	0.771	0.409	0.585	95.683	2.401	0.426	0.104	0.087	0.037	0.023	0.060	0	0	0	0
03/23/2002	1034	0.751	0.397	0.584	95.875	2.334	0.379	0.087	0.071	0.033	0.021	0.052	0	0	0	0
03/22/2002	1032	0.660	0.424	0.581	96.122	2.209	0.342	0.076	0.063	0.031	0.021	0.053	0	0	0	0
03/21/2002	1034	0.653	0.423	0.582	96.006	2.292	0.362	0.081	0.069	0.034	0.024	0.056	0	0	0	0
03/20/2002	1035	0.647	0.441	0.583	95.892	2.346	0.388	0.087	0.073	0.037	0.027	0.061	0	0	0	0
03/19/2002	1034	0.683	0.463	0.583	95.793	2.441	0.362	0.078	0.066	0.035	0.025	0.055	0	0	0	0
03/18/2002	1034	0.733	0.417	0.583	95.839	2.409	0.349	0.078	0.066	0.033	0.023	0.052	0	0	0	0
03/17/2002	1034	0.696	0.423	0.583	95.901	2.381	0.349	0.077	0.065	0.033	0.023	0.052	0	0	0	0
03/15/2002	1036	0.783	0.473	0.586	95.383	2.689	0.401	0.091	0.074	0.033	0.021	0.052	0	0	0	0
03/14/2002	1039	0.820	0.448	0.588	95.185	2.748	0.478	0.115	0.092	0.038	0.022	0.054	0	0	0	0
03/13/2002	1034	0.811	0.439	0.585	95.584	2.554	0.361	0.084	0.068	0.031	0.019	0.049	0	0	0	0
03/12/2002	1033	0.827	0.468	0.585	95.517	2.637	0.327	0.070	0.058	0.028	0.018	0.050	0	0	0	0
03/11/2002	1032	0.794	0.472	0.584	95.628	2.560	0.325	0.070	0.058	0.027	0.018	0.049	0	0	0	0
03/10/2002	1032	0.812	0.451	0.584	95.742	2.438	0.320	0.075	0.063	0.029	0.019	0.052	0	0	0	0
03/09/2002	1031	0.760	0.446	0.582	95.896	2.389	0.293	0.067	0.057	0.027	0.017	0.048	0	0	0	0

03/08/2002	1032	0.718	0.452	0.582	95.872	2.446	0.304	0.065	0.057	0.026	0.017	0.045	0	0	0	0
03/07/2002	1031	0.783	0.436	0.583	95.883	2.383	0.301	0.066	0.059	0.027	0.017	0.044	0	0	0	0
03/06/2002	1030	0.737	0.420	0.581	96.106	2.240	0.289	0.064	0.056	0.026	0.018	0.044	0	0	0	0
03/05/2002	1029	0.726	0.433	0.581	96.117	2.284	0.252	0.055	0.049	0.024	0.016	0.044	0	0	0	0
03/04/2002	1031	0.748	0.449	0.582	95.945	2.335	0.304	0.065	0.058	0.029	0.021	0.047	0	0	0	0
03/03/2002	1031	0.770	0.432	0.583	95.898	2.360	0.315	0.068	0.059	0.029	0.020	0.048	0	0	0	0
03/02/2002	1030	0.760	0.395	0.581	96.094	2.258	0.285	0.062	0.054	0.027	0.018	0.046	0	0	0	0
03/01/2002	1031	0.718	0.417	0.582	95.992	2.365	0.303	0.061	0.054	0.026	0.018	0.046	0	0	0	0
02/28/2002	1031	0.742	0.437	0.582	95.890	2.468	0.271	0.055	0.049	0.024	0.017	0.048	0	0	0	0
02/27/2002	1034	0.727	0.443	0.584	95.729	2.507	0.346	0.075	0.066	0.032	0.022	0.053	0	0	0	0
02/26/2002	1035	0.695	0.467	0.584	95.632	2.618	0.352	0.072	0.065	0.030	0.022	0.048	0	0	0	0
02/25/2002	1033	0.751	0.471	0.584	95.553	2.687	0.332	0.061	0.055	0.027	0.020	0.043	0	0	0	0
02/24/2002	1035	0.769	0.500	0.586	95.394	2.715	0.387	0.071	0.067	0.029	0.021	0.048	0	0	0	0
02/23/2002	1034	0.790	0.479	0.585	95.482	2.660	0.357	0.069	0.061	0.029	0.021	0.052	0	0	0	0

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**TexPar Energy, Inc.**  
**ENERGY MARKETERS**

## Laboratory Analysis Report

Date: 06/04/02  
Client: City of Tallahassee  
Sample#:  
Terminal: Motiva  
Product: #2 H.S. Fuel Oil (Flint Hill) Resources, Koch)

Test:	Results:	Method:
API @ 60F	✓ 37.4	ASTM D 4052
Viscosity	✓ 32 ssu @ 100F	ASTM D 445
Sulfur	✓ 0.35%	ASTM D 2622
Ash	✓ 0.01%	ASTM D 482
Flash Point	✓ 147F	ASTM D 93
Pour Point:	✓ <5	ASTM D 97
Water	✓ 0.01%	ASTM D 95
MMBTu/Barrel	✓ 5.91	ASTM D 240
Sediment, mass%:	✓ 0.005	ASTM D 473

specs OK -  
David Byrne, WES.  
6/9/02



# Intertek Testing Services

Best Available Copy

Caleb Brett

## REPORT OF ANALYSIS

Vessel : TTT 261  
Port/Terminal : IMTT ST. ROSE, LA.  
Client Ref : B05-02-031  
Our Ref : GR/20-02137S  
Date Sample Taken : 05/18/2002  
Date Submitted : 05/18/2002  
Date Tested : 05/19/2002  
Sample Designated As: NO.6 FUEL OIL  
Drawn By : PERSONNEL OF ITS CALEB BRETT  
Representing : HANDBLEND #1: SEE BELOW FOR DESCRIPTION  
  
Lab Reference : 1375-1

TEST	METHOD	RESULT	UNITS
Gravity, API @ 60 F	D1298	10.7	Deg/API
Sulfur Content	D4294	0.965	Wt. %
Viscosity, Kin @ 122 F	D445	111.7	Cst
Viscosity, SFS @ 122 F	D2161	52.59	Secs
Flash Point (PMCC) Procedure B	D93	>200	Deg. F
Pour Point	D97	21.2	Deg. F
Water by Distillation	D95	0.45	Vol. %
Sediment by Extraction	D473	0.07	Wt. %
Ash Content	D482	0.089	Wt. %
Asphaltene Content	IP143	1.7	Wt. %
Heat of Combustion	D4868	6383553	BTU/BBL
Vanadium	D5863	13	ppm

HANDBLEND #1: S/T 1 (19.4%), S/T 101 (38.9%), S/T 254 (41.7%).

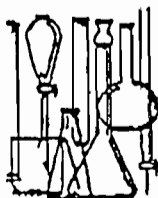
D. M.  
ITS - Caleb Brett

For JSDA

APR 18 '96 01:49PM PURDOM PLANT

P.2

## TYPICAL ANALYSIS - USED OIL



Telephone  
(904) 725-2040  
FAX  
(904) 727-9720

## SOUTHEASTERN CHEMISTS' LABORATORIES

P.O. Box 8917  
Jacksonville, FL 32239

Report Date: October 1, 1992

Laboratory Marks: Job # 34937 Date Sampled:

Sample of: Waste Oil Date Received: September 18, 1992

Client: City of Tallahassee, Hopkins Power Plant Rt. 4 Box 450 Geddle Road,  
Tallahassee, FL 32304

Sample Marks: Hopkins Power Plant

CERTIFICATE OF ANALYSIS

<u>Parameters</u>	<u>Method</u>	<u>Results</u>	<u>Analyst</u>	<u>Date/Time</u>
Total Organic Halogens (as chlorine) % by weight	ASTM D808	<0.1 %	FAR	9-21-92/1300
Flashpoint	ASTM D93	>140 F	FAR	9-21-92/1100
Arsenic	SW 7060	<0.010 mg/kg	DDA	9-23-92/1000
Cadmium	SW 7130	0.05 mg/kg	MAZ	10-1-92/1100
Chromium	SW 7190	<0.50 mg/kg	MAZ	10-1-92/1200
Lead	SW 7420	3.53 mg/kg	MAZ	9-25-92/1100

All samples analyzed in accordance with EPA, ASTM, or other approved methods.

Respectfully submitted,

Joseph W. Newton, President

EPA Accreditation #4352 DER #900384G

NIOSH Accreditation #32211 HRS #E82253

EPA Inspector #1153, 381 HRS #82366

Management #M123, 352

T/NAVLAP Accreditation #1632

S/pa

File

Hopkins

10/5/92

**ATTACHMENT EU04-03**  
**DESCRIPTION OF STACK SAMPLING FACILITIES**

### Stack Sampling Facilities

Unit No. 1 at the Arvah B. Hopkins Generating Station (EU-04) requires stack sampling on an annual basis. As such, permanent stack testing facilities have been installed on the unit's exhaust stack.

All test facilities are in accordance with Rule 62-297.310(6), Florida Administrative Code. These facilities also meet any Occupation Safety and Health Administration Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

Testing equipment which is not permanently mounted, such as safety harnesses and electrical outlets, are made available for use by sampling personnel during each sampling event. Detailed drawings are attached.

**EU04-03**

**Arvah B. Hopkins Generating Station**

**July 1, 2002**

**ATTACHMENT EU04-04**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**

Aryah B. Hopkins Generating Station  
July 1, 2002

### **Procedures for Startup and Shutdown**

The City of Tallahassee follows best operational practices in the startup and shutdown of the boilers at the Hopkins Generating Station. Under normal conditions, standard operating guidelines are followed for startup and shutdown of the boilers. Under any abnormal condition of operation, best operational practices are followed to minimize emissions and to minimize the duration of any excess emissions.

**EU04-04**

**Arvahn B. Hopkins Generating Station**

**July 1, 2002**

**ATTACHMENT EU04-05**  
**ALTERNATIVE METHODS OF OPERATION**



### Alternative Methods of Operation

Boiler No. 1 (EU-04) has a rated capacity of 903 mmBtu/hr heat input and is fueled by natural gas and/or fuel oil. The alternative methods of operation (AMOs) associated with the boiler are related to the type of fuel being fired and load. The boiler produces nominally 750,000 pounds of steam per hour to run a nominal 75 MW turbine generator. The current AMO's include the following:

- ❖ Natural Gas Firing – up to maximum rate of 903 mmBtu/hr
- ❖ Liquid Propane – up to max rate of 903 mmBtu/hr
- ❖ Fuel Oil Firing – up to maximum rate of 903 mmBtu/hr
  - Fuel Grade No. 6
  - On-Spec Used Oil
  - Distillate Fuel Oils
  - Co-firing and combination of Fuel Oil No. 6, Distillate Fuel Oils, On-Spec Used Oil, Liquid Propane, or Natural Gas up to 903 mmBtu/hr

Note: - Fuel additives typically of a magnesium oxide, hydroxide, sulfonate, or calcium nitrate origin may be used.

**ATTACHMENT EU04-06**  
**ADDITIONAL APPLICABLE REQUIREMENTS**

### Additional Applicable Requirements

*The City of Tallahassee requests the following revisions to be incorporated into the Title V Operating Permit:*

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

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
-001	903	Natural Gas <u>and Liquid Propane</u>
	903	No. 2 thru No. 6 Fuel Oil

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

**A.3. Methods of Operation - Fuels.** The only fuels that are allowed to be burned in this boiler are natural gas, liquid propane, and/or new No. 2 thru No. 6 fuel oil and/or on-specification used oil (See Specific Condition A.35).

LP gas is used as the igniter fuel when natural gas is not available. Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.

[Rule 62-213.410, F.A.C.; and, Applicant Request in initial Title V permit application dated June 14, 1996.]

**A.33.** The owners or operators of facilities for which monitoring is required shall submit to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of two years.

[Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

**A.35(e) Testing Requirements:** The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens and flashpoint ~~and PCBs~~.

If determined to be present, pursuant to 40 CFR 761(20)(e), the owner or operator shall also sample and analyze for PCBs.

Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

EU04-06

Aryah B. Hopkins Generating Station

July 1, 2002

**A.35(g) Reporting Requirements:** ~~The owner of operator shall submit to the Northwest District office, within thirty days of the end of each calendar quarter, the analytical results and the total amount of on-specification used oil generated and burned during the quarter.~~

The owner of operator shall submit, with the Annual Operation Report form, the analytical results required above and the total amount of on-specification used oil placed into inventory to be burned and the total amount of on-specification used oil burned during the previous calendar year.

EU04-06

Arvoh B. Hopkins Generating Station

July 1, 2002

**ATTACHMENT EU04-07**  
**ACID RAIN PART APPLICATION**

# Phase II Acid Rain Part Application

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

This submission is: ☐ New ☐ Revised ☒ Renewal

## STEP 1

Identify the source by plant name, State, and ORIS code from NADB

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

**STEP 2** Enter the unit ID# for each affected unit and indicate whether a unit is being repowered and the repowering plan being renewed by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

a Unit ID#	Compliance Plan		d New Units  Commence Operation Date	e New Units  Monitor Certification Deadline
	b Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	c Repowering Plan		
Boiler No. 1 (EU ID No. 001)	Yes	No		
Boiler No. 2 (EU ID No. 004)	Yes	No		
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

## STEP 3

Check the box if the response in column c of Step 2 is "Yes" for any unit

☐ For each unit that is being repowered, the Repowering Extension Plan form is included.

**STEP 4**

Read the standard requirements and certification, enter the name of the designated representative, and sign and date

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

**Standard Requirements**Acid Rain Part Requirements.

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

Monitoring Requirements.

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

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain part application, the Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

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

Excess Emissions Requirements.

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

Recordkeeping and Reporting Requirements.

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

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

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8 or 72.14, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.

(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR parts 72, 73, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

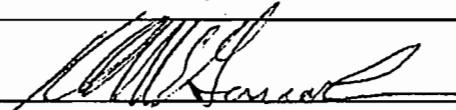
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**Certification**

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

Name: Robert E. McGarrah, Manager of Power Production, City of Tallahassee

Signature:



Date: July 1, 2002



## III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**  
(All Emissions Units)

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in This Section: (Check one)			
<input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
<input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			
2. Regulated or Unregulated Emissions Unit? (Check one)			
<input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
<input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):			
<b>Boiler No. 2</b>			
4. Emissions Unit Identification Number:			
<input type="checkbox"/> No ID		ID: <b>004</b>	
		<input type="checkbox"/> ID Unknown	
5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
<b>A</b>	<b>N/A</b>	<b>49</b>	<input checked="" type="checkbox"/>
9. Emissions Unit Comment: (Limit to 500 Characters)			
<p><b>The maximum heat input rate when firing natural gas is 2,500 mmBtu/hr.</b></p> <p><b>The maximum heat input rate when firing fuel oil is 2,325 mmBtu/hr, and is based on sulfur dioxide AAQS and PSD modeling analyses completed by the City of Tallahassee in August 1992 that correspond with the 1.4 mmBtu/hr limit indicated in the site certification. The maximum hours of operation are 8760 hours per year. This unit does consume PSD increment</b></p>			

**Emissions Unit (EU-05) Information Section 5 of 5**

**Emissions Unit Control Equipment**

1. Control Equipment/Method Description (Limit to 200 characters per device or method): <b>N/A</b>
2. Control Device or Method Code(s): <b>N/A</b>

**Emissions Unit Details**

1. Package Unit: Manufacturer: <b>Babcock &amp; Wilcox</b> Model Number: <b>RB-533</b>
2. Generator Nameplate Rating: <b>238 MW</b> (nominal)
3. Incinerator Information: <b>N/A</b> Dwell Temperature: °F Dwell Time: seconds Incinerator Afterburner Temperature: °F

**B. EMISSIONS UNIT CAPACITY INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Heat Input Rate: <b>2500</b> mmBtu/hr
2. Maximum Incineration Rate: <b>N/A</b> lb/hr tons/day
3. Maximum Process or Throughput Rate: <b>N/A</b>
4. Maximum Production Rate: <b>N/A</b>
5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 52 weeks/year 8760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):

**C. EMISSIONS UNIT REGULATIONS**  
**(Regulated Emissions Units Only)**

**List of Applicable Regulations**

<b>Rule 62-210.700(1),(4),(6) F.A.C.</b>	<b>40 CFR 72.23</b>
<b>Rule 62-214.300 F.A.C.</b>	<b>40 CFR 72.30 (a),(c),(d)</b>
<b>Rule 62-214.350(2),(3),(5),(6) F.A.C</b>	<b>40 CFR 72.32</b>
<b>Rule 62-214.430(1) F.A.C.</b>	<b>40 CFR 72.40(a)(c)(d)</b>
<b>Rule 62-296.405(1)(a),(b),(c)1h F.A.C</b>	<b>40 CFR 72.51</b>
<b>Rule 62-296.405(1),(d)3,(f)1,b,(e)1,2,3,4;(f)1a(i)</b>	<b>40 CFR 72.90</b>
<b>Rule 62-297.310(1) F.A.C.</b>	<b>40 CFR 73.33(c)(d)(e)</b>
<b>Rule 62-297.310(2)(b) F.A.C.</b>	<b>40 CFR 73.35(c)</b>
<b>Rule 62-297.310(3) F.A.C.</b>	<b>40 CFR 75.4</b>
<b>Rule 62-297.310(4) F.A.C</b>	<b>40 CFR 75.5</b>
<b>Rule 62-297.310(5) F.A.C.</b>	<b>40 CFR 75.10(a)(1),(a)(2),(a)(3)(ii)(b)-(d),(f)(g)</b>
<b>Rule 62-297.310(6)(a),(c)-(g) F.A.C</b>	<b>40 CFR 75.11(d)(2)</b>
<b>Rule 62-297.310(7)(a)2,3,4,5,9,(c) F.A.C.</b>	<b>40 CFR 75.12(a),(b)</b>
<b>Rule 62-297.310(8) F.A.C.</b>	<b>40 CFR 75.13(a),(b)</b>
<b>40 CFR 72.9(a),(b),(c)(1)-(3)(iii),(e)-(g)</b>	<b>40 CFR 75.14(c)</b>
<b>40 CFR 72.20(a)-(c)</b>	<b>40 CFR 75.20(a)(5),(b),(c),(d),(g)</b>
<b>40 CFR 72.21</b>	<b>40 CFR 75.21(a),(c)</b>
<b>40 CFR 72.22</b>	

Emissions Unit (EU-05) Information Section 5 of 5

List of Applicable Regulations (cont.)

40 CFR 75.22	40 CFR 75.64
40 CFR 75.24	40 CFR 75, Appendix A
40 CFR 75.30(a)(3),(d)(2)	40 CFR 75, Appendix B
40 CFR 75.31	40 CFR 75, Appendix C
40 CFR 75.32	40 CFR 75, Appendix D
40 CFR 75.33(a),(c)	40 CFR 75, Appendix G(2),(4)
40 CFR 75.53	40 CFR 75, Appendix H (reserved)
40 CFR 75.54 [except (f)]	40 CFR 77.3
40 CFR 75.58(c)	40 CFR 77.5(b)
40 CFR 75.59	40 CFR 77.6
40 CFR 75.60	
40 CFR 75.61	
40 CFR 75.62	
40 CFR 75.63	

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram? <b>EU06</b>		2. Emission Point Type Code: <b>1</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):  <b>This emission point represents the exhaust for Boiler No. 2</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>N/A</b>			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>250 feet</b>	7. Exit Diameter: <b>14.0 feet</b>	
8. Exit Temperature: <b>260.6 °F</b>	9. Actual Volumetric Flow <b>636,706 acfm</b>	10. Water Vapor: <b>N/A</b>	
11. Maximum Dry Standard Flow Rate: <b>N/A</b>		12. Nonstack Emission Point Height: <b>N/A</b>	
13. Emission Point UTM Coordinates:  <b>See Facility UTM Coordinates Previously Provided in this Application</b>			
14. Emission Point Comment (limit to 200 characters):  <b>Values in Field 8 and 9 are based on design and subject to change based on ambient conditions.</b>			

**Emissions Unit (EU-05) Information Section 5 of 5**

**E. SEGMENT (PROCESS/FUEL) INFORMATION  
(All Emissions Units)**

**Segment Description and Rate:** Segment 1 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters):  <b>Natural Gas</b>		
2. Source Classification Code (SCC): <b>10100601</b>		3. SCC Units: <b>mmSCF</b>
4. Maximum Hourly Rate: <b>2.4</b>	5. Maximum Annual Rate: <b>2.11 x 10<sup>4</sup></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>*See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>1040</b> (assumed gross calorific value)
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly and Annual Rates based on 8760 hours per year operation.</b>  <b>*This unit is operated in accordance with allowable limits contained in current Operating Permit No. 0730003-001-AV. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.</b>  <b>The value in Field 9 is an estimate subject to fluctuation.</b>		

**Segment Description and Rate:** Segment 2 of 6

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  <b>No. 6 Fuel Oil</b>		
2. Source Classification Code (SCC): <b>10100401</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate: <b>15500</b>	5. Maximum Annual Rate: <b>135.8 x 10<sup>6</sup></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>*See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.15</b> (assumed gross calorific value)

Emissions Unit (EU-05) Information Section 5 of 5

10. Segment Comment (limit to 200 characters):

**Maximum Hourly and Annual Rates based on 8760 hours per year operation.**

**\*This unit is operated in accordance with allowable limits contained in current Operating Permit No. 0730003-001-AV. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.**

**The value in Field 9 is an estimate subject to fluctuation.**

**Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.**

**Segment Description and Rate:** Segment 3 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters):

**On-Spec Used Oil**

2. Source Classification Code (SCC): **10101302**

3. SCC Units: **Gallons**

4. Maximum Hourly Rate:  
**15500**

5. Maximum Annual Rate:  
**10,000**

6. Estimated Annual Activity  
Factor: **N/A**

7. Maximum % Sulfur:  
**\*See Field 10**

8. Maximum % Ash:  
**N/A**

9. Million Btu per SCC Unit:  
**0.15**  
(assumed gross calorific value)

10. Segment Comment (limit to 200 characters):

**Maximum Hourly Rate is based on 8760 hours per year operation. Maximum Annual Rate is based on Specific Condition B.37 in current Operating Permit No. 0730003-001-AV.**

**\*This unit is operated in accordance with allowable limits contained in current Operating Permit No. 0730003-001-AV. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.**

**The value in Field 9 is an estimate subject to fluctuation.**

# Emissions Unit (EU-05) Information Section 5 of 5

## Segment Description and Rate: Segment 4 of 6

1. Segment Description (Process/Fuel Type ) (limit to 500 characters): <b>Distillate Fuel Oils</b>		
2. Source Classification Code (SCC): <b>10100501</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate: <b>17,748</b>	5. Maximum Annual Rate: <b><math>1.55 \times 10^8</math></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>*See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.131</b> (assumed gross calorific value)
10. Segment Comment (limit to 200 characters):  <p><b>Maximum Hourly and Annual Rates based on 8760 hours per year operation.</b></p> <p><b>*This unit is operated in accordance with allowable limits contained in current Operating Permit No. 0730003-001-AV. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.</b></p> <p><b>The value in Field 9 is an estimate subject to fluctuation.</b></p> <p><b>Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.</b></p>		

## Segment Description and Rate: Segment 5 of 6

1. Segment Description (Process/Fuel Type) (limit to 500 characters): <b>Liquid Propane</b>		
2. Source Classification Code (SCC): <b>10101002</b>		3. SCC Units: <b>Gallons</b>
4. Maximum Hourly Rate: <b>27,624</b>	5. Maximum Annual Rate: <b><math>2.42 \times 10^8</math></b>	6. Estimated Annual Activity Factor: <b>N/A</b>
7. Maximum % Sulfur: <b>*See Field 10</b>	8. Maximum % Ash: <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.0905</b> (assumed gross calorific value)
10. Segment Comment (limit to 200 characters):  <p><b>This application requests authorization to fire liquid propane.</b></p> <p><b>Maximum Hourly and Annual Rates based on 8760 hours per year operation.</b></p> <p><b>*This unit is operated in accordance with allowable limits contained in current Operating Permit No. 0730003-001-AV. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.</b></p> <p><b>The value in Field 9 is an estimate subject to fluctuation.</b></p>		



# **Emissions Unit (EU-05) Information Section 5 of 5**

## **Segment Description and Rate: Segment 6 of 6**

1. Segment Description (Process/Fuel Type ) (limit to 500 characters):  <b>Any mixture of Fuel Oil No. 6 (Residual Oil), On-Spec Used Oil, Distillate Fuel Oil, Liquid Propane or Natural Gas</b>		
2. Source Classification Code (SCC): *		3. SCC Units: <b>Gallons / mmSCF*</b>
4. Maximum Hourly Rate:  <b>15,500 / 2.4*</b>	5. Maximum Annual Rate:  <b>1.36 x 10<sup>8</sup> / 2.11 x 10<sup>4</sup>*</b>	6. Estimated Annual Activity Factor:  <b>N/A</b>
7. Maximum % Sulfur:  <b>See Field 10</b>	8. Maximum % Ash:  <b>N/A</b>	9. Million Btu per SCC Unit: <b>0.15 / 1040*</b> (assumed gross calorific value)
10. Segment Comment (limit to 200 characters):  <p><b>*See information previously provided in this application for each individual segment.</b></p> <p><b>The purpose of this segment is to indicate the potential to co-fire multiple fuels. In order to provide maximum hourly rates for the co-firing of a liquid and gaseous fuel, the maximum of each fuel is provided.</b></p> <p><b>This unit is operated in accordance with allowable limits contained in current Operating Permit No. 0730003-001-AV. No limitation applies to maximum percent sulfur. Upon receipt of information pertaining to the sulfur content of fuels, the City of Tallahassee co-fires fuels as necessary to meet the sulfur dioxide emissions limitation. Thus, the City of Tallahassee maintains no expectation regarding the maximum percent sulfur in any single fuel.</b></p> <p><b>The value in Field 9 is an estimate subject to fluctuation.</b></p> <p><b>Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.</b></p>		

**F. EMISSIONS UNIT POLLUTANTS**  
**(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>CO</b>			<b>NS</b>
<b>NO<sub>x</sub></b>			<b>EL</b>
<b>PM</b>			<b>EL</b>
<b>PM<sub>10</sub></b>			<b>NS</b>
<b>SO<sub>2</sub></b>			<b>EL</b>
<b>VOC</b>			<b>NS</b>
<b>Pb</b>			<b>NS</b>
<b>H015</b>			<b>NS</b>
<b>H151</b>			<b>NS</b>
<b>H046</b>			<b>NS</b>
<b>H047</b>			<b>NS</b>
<b>H095</b>			<b>NS</b>
<b>H106</b>			<b>NS</b>
<b>H107</b>			<b>NS</b>
<b>H113</b>			<b>NS</b>
<b>H133</b>			<b>NS</b>
<b>HAPS</b>			<b>NS</b>

*ZB*

Emissions Unit (EU-05) Information Section 5 of 5

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units -  
Emissions-Limited and Preconstruction Review Pollutants Only)

Pollutant Detail Information: Pollutant 1 of 3

Potential/Fugitive Emissions

1. Pollutant Emitted: <b>SO<sub>2</sub></b>	2. Total Percent Efficiency of Control:
3. Potential Emissions: <b>3.26 x 10<sup>3</sup> lb/hour      1.43 x 10<sup>4</sup> tons/year</b>	4. Synthetically Limited? <input checked="" type="checkbox"/> [ X ]
5. Range of Estimated Fugitive Emissions: [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/year	
6. Emission Factor: <b>1.4 lb/mmBtu</b> Reference: <b>Site Certification Unit 2 (PA 74-03D)</b>	7. Emissions Method Code: <b>0</b>
8. Calculation of Emissions (limit to 600 characters):  <b>Allowable Emissions Rate: 1.4 lb/mmBtu</b>  <b>Max Heat Input Rate: 2,325 mmBtu/hr</b>  <b>lb/hr = (1.4 lb/mmBtu) x (2,325 mmBtu/hr) = 3.26 x 10<sup>3</sup> lb/hr</b>  <b>TPY = (3.26 x 10<sup>3</sup> lb/hr) x (8760 hrs/yr) x (ton/2000 lb) = 1.43 x 10<sup>4</sup> TPY</b>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>The Hopkins Conditions of Certification (PA 74-03D) – Special Condition 1(A) limits emissions of sulfur dioxide to 1.4 lb/mmBtu. The maximum fuel oil heat input rate is 2,325 mmBtu/hr. Potential SO<sub>2</sub> emissions are estimated using these allowable rates and the maximum annual operating schedule of 8760.</b>	

Allowable Emissions

1. Basis for Allowable Emissions Code: <b>Rule</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:  <b>1.4 lb/mmBtu</b>	4. Equivalent Allowable Emissions:  <b>3.26 x 10<sup>3</sup> lb/hour      1.43 x 10<sup>4</sup> tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>Records of fuel oil sulfur content as received from the vendor are maintained and kept available for Department inspections.</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions limitation entered in Field 3 reflects the emission limitation contained in the Hopkins Conditions of Certification (PA 74-03D) – Special Condition 1(A), which cites to Rules 17-296 (currently 62-296) and 17-210.700 (currently 62-210.700) F.A.C. The federally enforceable limitation established through the SIP is 1.87 lb/mmBtu.</b>	

# Emissions Unit (EU-05) Information Section 5 of 5

## Pollutant Detail Information: Pollutant 2 of 3

### Potential/Fugitive Emissions

1. Pollutant Emitted: <b>PM</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions:  <div style="display: flex; justify-content: space-around;"> <span><b>750 lb/hour</b></span> <span><b><math>1.37 \times 10^3</math> tons/year</b></span> </div>		4. Synthetically Limited? <input type="checkbox"/>	
5. Range of Estimated Fugitive Emissions: <div style="display: flex; justify-content: space-around;"> <span>[ ] 1</span> <span>[ ] 2</span> <span>[ ] 3</span> <span>_____ to _____ tons/year</span> </div>			
6. Emission Factor:  <b>0.1 lb/mmBtu (0.3 lb/mmBtu during boiler cleaning and load change)</b>  Reference: <b>62-296.405(1)(b) and 62-210.700, F.A.C.</b>		7. Emissions Method Code:  <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <p><b>Allowable Emissions Rate: 0.1 lb/mmBtu and 0.3 lb/mmBtu during excess emissions</b></p> <p><b>Max Heat Input Rate: 2,500 mmBtu/hr</b></p> <p><b>A PM emission rate of 0.3 lb/mmBtu is allowed for 3 hr in a 24 hr period, or 12.5 % or the time.</b></p> <p><b>lb/hr (potential) = (2500 mmBtu/hr) x (0.3 lb/mmBtu) = 750 lb/hr</b></p> <p><b>lb/hr (annual average) = (1 - .125) x (2500 mmBtu/hr x 0.1 lb/mmBtu/hr) + (.125) x (2500 mmBtu/hr x 0.3 lb/mmBtu)</b></p> <p><b>lb/hr = 312.5 lb/hr</b></p> <p><b>TPY = (312.5 lb/hr) x (8760 hrs/yr) x (ton/2000 lb) = <math>1.37 \times 10^3</math> TPY</b></p>			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <p><b>The current maximum allowable emission rate is 0.1 lb/mmBtu and 0.3 lb/mmBtu during excess emissions for load changes and boiler cleaning. The maximum heat input rate is 2,500 mmBtu/hr. Hourly potential PM emissions are estimated based on 0.3 lb/mmBtu emissions rate and 2,500 mmBtu/hr heat input. Annual PM emissions are estimated utilizing these allowable rates, the maximum annual operating schedule of 8760 hours, and an estimated occurrence of excess emissions of 12.5 %.</b></p>			

Emissions Unit (EU-05) Information Section 5 of 5

**Allowable Emissions**

1. Basis for Allowable Emissions Code: <b>Rule</b>	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:  <b>0.1 lb/mmBtu for oil firing only (0.3 lb/mmBtu during boiler cleaning or load change)</b>	4. Equivalent Allowable Emissions:  <b>232.5 lb/hour    1.02 x 10<sup>3</sup> tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Methods 1,2,3,5, or 17 in any fiscal year in which the fossil fuel system generator burns more than 400 hours of fuel oil other than startup.</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions limitation entered in Field 3 reflects the maximum allowable emission rates listed in Specific Condition B.8 in Permit No. 0730003-001-AV. These requirements are found in 62-296.405(1)(b) and 62-210.700(1), F.A.C</b>	

**Pollutant Detail Information:** Pollutant 3 of 3

**Potential/Fugitive Emissions**

1. Pollutant Emitted: <b>NOx</b>	2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>750 lb/hour    3.29 x 10<sup>3</sup> tons/year</b>	4. Synthetically Limited? [ ]	
5. Range of Estimated Fugitive Emissions: [ ] 1    [ ] 2    [ ] 3    _____ to _____ tons/year		
6. Emission Factor: <b>0.3 lb/mmBtu</b> Reference: <b>62-296.405(1)(d)(3), F.A.C.</b>	7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions (limit to 600 characters):  <b>Allowable Emissions Rate: 0.3 lb/mmBtu</b> <b>Max Heat Input Rate: 2,500 mmBtu/hr</b> <b>lb/hr = (2,500 mmBtu/hr x 0.3 lb/mmBtu)</b> <b>lb/hr = 750 lb/hr</b> <b>TPY = (750 lb/hr) x (8760 hrs/yr) x (ton/2000 lb) = 3.29 x 10<sup>3</sup> TPY</b>		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  <b>The current maximum allowable emission rate is 0.3 lb/mmBtu and the maximum heat input rate is 2,500 mmBtu/hr. Potential NOx emissions are estimated using this allowable rate and the maximum annual operating schedule of 8760 hours.</b>		

**Emissions Unit (EU-05) Information Section 5 of 5**

**Allowable Emissions**

1. Basis for Allowable Emissions Code:  <b>Rule</b>	2. Future Effective Date of Allowable Emissions:  <b>N/A</b>
3. Requested Allowable Emissions and Units:  <b>0.3 lb/mmBtu</b>	4. Equivalent Allowable Emissions:  <b>750 lb/hour      3.29 x 10<sup>3</sup> tons/year</b>
5. Method of Compliance (limit to 60 characters):  <b>EPA Method 7</b>	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  <b>Emissions limitation entered in Field 3 reflects the maximum allowable emission rate specified by Rule 62-296.405(1)(d)3, F.A.C.</b>	

**H. VISIBLE EMISSIONS INFORMATION**  
**(Only Regulated Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype:  <b>VE20</b>	2. Basis for Allowable Opacity:  <b>[ X ] Rule                      [   ] Other</b>
3. Requested Allowable Opacity: Normal Conditions: <b>20 %</b> Exceptional Conditions: <b>27 %</b> Maximum Period of Excess Opacity Allowed: <b>6 min/hour</b>	
4. Method of Compliance:  <b>Annual Testing in accordance with EPA Method 9</b>	
5. Visible Emissions Comment (limit to 200 characters):     	

**Emissions Unit (EU-05) Information Section 5 of 5**

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype:  <b>VE60</b>	2. Basis for Allowable Opacity:  <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: <b>60 %</b> Exceptional Conditions: <b>100 %</b> Maximum Period of Excess Opacity Allowed: <b>*See Field 5</b>	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):  <b>In accordance with Rule 62-210.700(1),(2),&amp;(3), F.A.C., excess emissions are allowed at the following opacities for the associated time periods:</b>  <b>60% - 3 hrs / 24 hrs for boiler cleaning and load change</b> <b>100% - 2 hrs / 24 hrs for malfunction</b> <b>100% - unlimited for start-up and shut down</b>  <b>The City is also requesting relief for excess opacity when fuel switching or purging oil from fuel oil burners. Purging occurs whenever a burner is removed from service.</b>	

**I. CONTINUOUS MONITOR INFORMATION**  
(Only Regulated Emissions Units Subject to Continuous Monitoring)

**Continuous Monitoring System:** Continuous Monitor 1 of 4

1. Parameter Code: <b>Flow</b>	2. Pollutant(s): <b>Gas Fuel Flow</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Manufacturer: <b>Daniel</b> Model Number: <b>Flange Neck</b> Serial Number: <b>506868</b>	
5. Installation Date: <b>12-16-94</b>	6. Performance Specification Test Date: <b>3-6-02</b>
7. Continuous Monitor Comment (limit to 200 characters):  <b>Orifice Meter: Installed in accordance with Rule 62-214.320, F.A.C., Rule 62-214.330, F.A.C., and 40 CFR Part 75 Appendix D, Section 2.1</b>  <b>Note: The serial number is correct as of June 2002, but is subject to change.</b>	

# **Emissions Unit (EU-05) Information Section 5 of 5**

**Continuous Monitoring System:** Continuous Monitor 2 of 4

1. Parameter Code: <b>Flow</b>	2. Pollutant(s): <b>Oil Fuel Flow Monitor (3)</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Manufacturer: <b>MicroMotion</b> Model Number: <b>DS300</b> Serial Number: <b>195358, 197391 &amp; 175327</b>	
5. Installation Date: <b>3-4-96</b>	6. Performance Specification Test Date: <b>2-28-02</b>
7. Continuous Monitor Comment (limit to 200 characters):  <b>Coriolis Type Meter: Installed in accordance with Rule 62-214.320, F.A.C., Rule 62-214.330, F.A.C., and 40 CFR Part 75 Appendix D, Section 2.1</b>  <b>Note: The serial numbers are correct as of June 2002, but are subject to change.</b>  <b>The City maintains three (3) certified and calibrated fuel oil flow monitors. Only two (2) are placed in service at any one time.</b>	

**Continuous Monitoring System:** Continuous Monitor 3 of 4

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NOx</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Manufacturer: <b>Teco</b> Model Number: <b>42C</b> Serial Number: <b>42C69746-364</b>	
5. Installation Date: <b>8-01</b>	6. Performance Specification Test Date: <b>8-24-01</b>
7. Continuous Monitor Comment (limit to 200 characters):  <b>Installed in accordance with Rule 62-214.320, F.A.C., Rule 62-214.330, F.A.C., and 40 CFR Part 75 Appendix D, Section 2.1</b>  <b>Note: The serial number is correct as of June 2002, but is subject to change.</b>	



**Emissions Unit (EU-05) Information Section 5 of 5**

**Continuous Monitoring System:** Continuous Monitor 4 of 4

1. Parameter Code: <b>CO<sub>2</sub></b>	2. Pollutant(s): <b>Carbon Dioxide</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Manufacturer: <b>Teco</b> Model Number: <b>41CHL</b> Serial Number: <b>41CHL68216-359</b>	
5. Installation Date: <b>8-01</b>	6. Performance Specification Test Date: <b>8-24-01</b>
7. Continuous Monitor Comment (limit to 200 characters):  <b>Installed in accordance with Rule 62-214.320, F.A.C., Rule 62-214.330, F.A.C., and 40 CFR Part 75 Appendix D, Section 2.1</b>  <b>Note: The serial numbers are correct as of June 2002, but are subject to change.</b>	

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**  
**(Regulated Emissions Units Only)**

**Supplemental Requirements**

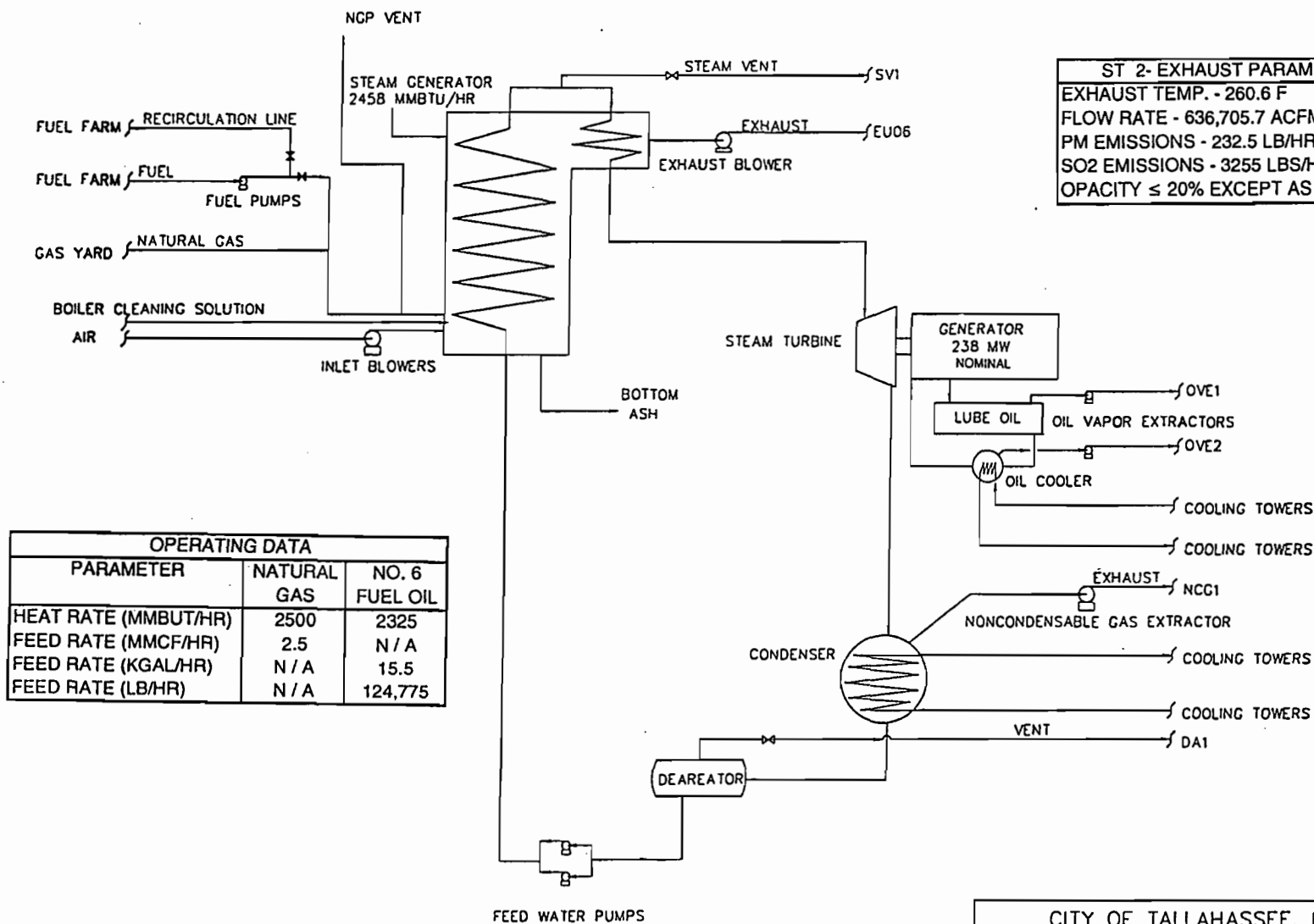
1. Process Flow Diagram [ <b>X</b> ] Attached, Document ID: <b>EU05-01</b> [   ] Not Applicable      [   ] Waiver Requested
2. Fuel Analysis or Specification [ <b>X</b> ] Attached, Document ID: <b>EU05-02</b> [   ] Not Applicable      [   ] Waiver Requested
3. Detailed Description of Control Equipment [   ] Attached, Document ID: _____      [ <b>X</b> ] Not Applicable      [   ] Waiver Requested
4. Description of Stack Sampling Facilities [ <b>X</b> ] Attached, Document ID: <b>EU05-03</b> [   ] Not Applicable      [   ] Waiver Requested
5. Compliance Test Report [   ] Attached, Document ID: _____ [ <b>X</b> ] Previously submitted, Date: <b>October 19, 2001</b> [   ] Not Applicable
6. Procedures for Startup and Shutdown [ <b>X</b> ] Attached, Document ID: <b>EU05-04</b> [   ] Not Applicable      [   ] Waiver Requested
7. Operation and Maintenance Plan [   ] Attached, Document ID: _____      [ <b>X</b> ] Not Applicable      [   ] Waiver Requested
8. Supplemental Information for Construction Permit Application [   ] Attached, Document ID: _____      [ <b>X</b> ] Not Applicable
9. Other Information Required by Rule or Statute [   ] Attached, Document ID: _____      [ <b>X</b> ] Not Applicable
10. Supplemental Requirements Comment:

Emissions Unit (EU-05) Information Section 5 of 5

**Additional Supplemental Requirements for Title V Air Operation Permit Applications**

11. Alternative Methods of Operation [ X ] Attached, Document ID: <u>EU05-05</u> [ ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: _____ [ X ] Not Applicable
13. Identification of Additional Applicable Requirements [ X ] Attached, Document ID: <u>EU05-06</u> [ ] Not Applicable
14. Compliance Assurance Monitoring Plan [ ] Attached, Document ID: _____ [ X ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required) [ X ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: <u>EU05-07</u>  [ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____  [ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____  [ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____  [ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____  [ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____  [ ] Not Applicable

**ATTACHMENT EU05-01**  
**FLOW DIAGRAM**



ST 2- EXHAUST PARAMETERS	
EXHAUST TEMP. -	260.6 F
FLOW RATE -	636,705.7 ACFM
PM EMISSIONS -	232.5 LB/HR
SO2 EMISSIONS -	3255 LBS/HR
OPACITY ≤	20% EXCEPT AS ALLOWED

OPERATING DATA		
PARAMETER	NATURAL GAS	NO. 6 FUEL OIL
HEAT RATE (MMBTU/HR)	2500	2325
FEED RATE (MMCF/HR)	2.5	N / A
FEED RATE (KGAL/HR)	N / A	15.5
FEED RATE (LB/HR)	N / A	124,775

CITY OF TALLAHASSEE, FLORIDA  
TITLE V PERMIT APPLICATION  
HOPKINS GENERATING STATION  
SIMPLIFIED PROCESS FLOW DIAGRAM  
STEAM GENERATOR NO. 2

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A  
DATE: 04/30/96

BY: DJG  
CKD' BY: CJT  
REV. BY: CJT

CAD FILE NO.  
HSG2.DWG  
FIGURE NO.  
EU06-02

**ATTACHMENT EU05-02**  
**FUEL ANALYSIS OR SPECIFICATION**

### **Fuel Analysis or Specification**

The attached fuel sample analyses represent "typical" characterizations for the fuels combusted in EU05, Boiler No. 2. Maximum values could be higher. The fuels represented in the analyses are natural gas, fuel oil, and on-spec waste oil.

**EU05-02**

**Aryah B. Hopkins Generating Station**

**July 1, 2002**

## daily chromatograph

date requested: May 23 2002 9:59AM

The data contained herein is preliminary data and therefore should be used for contemporaneous operational purposes only and may be subject to change at month end. This data is provided to assist our customers in tracking their gas usage as closely as possible on a real-time basis. The information contained on this web page is not to be considered billable information. This data will be subject to additional verification and possible modification prior to billing.

Chromatograph Report For: 8031 - PERRY STREAM #2															
download															
Date	BTU	CO2	N2	Grav	Methan	Ethane	Propan	Ibutan	Nbutan	Ipenta	Npenta	C6	C7	H2	Oxygen
05/23/2002	1036	0.905	0.354	0.587	95.665	2.284	0.440	0.115	0.097	0.042	0.026	0.072	0	0	0
05/22/2002	1036	0.854	0.400	0.586	95.555	2.442	0.432	0.107	0.091	0.036	0.022	0.060	0	0	0
05/21/2002	1041	0.865	0.339	0.590	95.264	2.549	0.585	0.148	0.125	0.042	0.023	0.059	0	0	0
05/20/2002	1043	0.831	0.427	0.591	94.930	2.841	0.577	0.139	0.125	0.042	0.025	0.064	0	0	0
05/19/2002	1042	0.872	0.383	0.590	95.111	2.649	0.583	0.144	0.125	0.042	0.025	0.065	0	0	0
05/18/2002	1042	0.813	0.401	0.590	95.082	2.751	0.559	0.134	0.118	0.044	0.027	0.071	0	0	0
05/17/2002	1046	0.817	0.386	0.593	94.826	2.865	0.654	0.162	0.137	0.050	0.029	0.073	0	0	0
05/16/2002	1044	0.786	0.386	0.591	95.045	2.760	0.615	0.147	0.125	0.044	0.026	0.065	0	0	0
05/15/2002	1042	0.734	0.410	0.588	95.218	2.740	0.541	0.123	0.108	0.039	0.024	0.062	0	0	0
05/14/2002	1043	0.742	0.431	0.590	95.066	2.821	0.561	0.131	0.114	0.042	0.026	0.065	0	0	0
05/13/2002	1041	0.725	0.417	0.588	95.283	2.733	0.500	0.114	0.099	0.040	0.025	0.064	0	0	0
05/12/2002	1041	0.737	0.410	0.588	95.336	2.671	0.493	0.114	0.100	0.042	0.027	0.070	0	0	0
05/11/2002	1045	0.725	0.395	0.590	94.905	3.052	0.557	0.122	0.110	0.041	0.026	0.067	0	0	0
05/10/2002	1047	0.765	0.373	0.592	94.767	3.087	0.600	0.139	0.122	0.046	0.028	0.072	0	0	0
05/09/2002	1046	0.744	0.374	0.591	94.937	2.938	0.596	0.137	0.123	0.046	0.030	0.074	0	0	0
05/08/2002	1042	0.734	0.398	0.589	95.191	2.775	0.530	0.126	0.108	0.042	0.026	0.068	0	0	0
05/07/2002	1040	0.720	0.407	0.587	95.408	2.651	0.471	0.112	0.097	0.040	0.026	0.069	0	0	0
05/06/2002	1040	0.681	0.408	0.586	95.497	2.609	0.466	0.112	0.095	0.041	0.026	0.067	0	0	0
05/05/2002	1041	0.749	0.408	0.588	95.239	2.756	0.501	0.118	0.097	0.041	0.026	0.065	0	0	0
05/04/2002	1038	0.791	0.401	0.587	95.384	2.681	0.439	0.096	0.081	0.037	0.025	0.065	0	0	0
05/03/2002	1034	0.821	0.412	0.585	95.609	2.514	0.382	0.080	0.070	0.033	0.022	0.058	0	0	0
05/02/2002	1033	0.766	0.403	0.583	95.926	2.294	0.356	0.080	0.068	0.031	0.021	0.053	0	0	0
05/01/2002	1032	0.757	0.406	0.582	95.979	2.292	0.332	0.074	0.062	0.029	0.020	0.050	0	0	0
04/30/2002	1032	0.784	0.420	0.583	95.877	2.308	0.362	0.080	0.070	0.030	0.020	0.049	0	0	0
04/29/2002	1033	0.784	0.421	0.584	95.868	2.286	0.376	0.086	0.078	0.031	0.021	0.050	0	0	0
04/28/2002	1033	0.797	0.431	0.584	95.812	2.294	0.391	0.090	0.080	0.032	0.021	0.052	0	0	0
04/27/2002	1034	0.790	0.439	0.585	95.677	2.414	0.395	0.092	0.082	0.034	0.022	0.056	0	0	0
04/26/2002	1035	0.779	0.433	0.585	95.678	2.407	0.407	0.095	0.083	0.035	0.023	0.059	0	0	0
04/25/2002	1034	0.720	0.421	0.584	95.853	2.331	0.401	0.088	0.079	0.033	0.022	0.054	0	0	0
04/24/2002	1033	0.711	0.417	0.582	95.981	2.286	0.361	0.079	0.066	0.029	0.019	0.050	0	0	0
04/23/2002	1034	0.718	0.410	0.583	95.838	2.391	0.391	0.082	0.072	0.029	0.019	0.050	0	0	0



04/22/2002	1034	0.699	0.428	0.583	95.824	2.417	0.372	0.082	0.073	0.032	0.022	0.052	0	0	0	0
04/21/2002	1034	0.763	0.432	0.584	95.785	2.374	0.375	0.088	0.076	0.032	0.022	0.054	0	0	0	0
04/20/2002	1033	0.732	0.438	0.583	95.885	2.320	0.362	0.084	0.074	0.032	0.022	0.052	0	0	0	0
04/19/2002	1034	0.742	0.436	0.584	95.751	2.419	0.372	0.087	0.077	0.034	0.024	0.057	0	0	0	0
04/18/2002	1033	0.750	0.423	0.584	95.860	2.334	0.364	0.086	0.075	0.032	0.022	0.053	0	0	0	0
04/17/2002	1034	0.721	0.443	0.583	95.836	2.377	0.360	0.083	0.073	0.031	0.021	0.053	0	0	0	0
04/16/2002	1033	0.763	0.404	0.583	95.866	2.350	0.356	0.084	0.070	0.032	0.020	0.054	0	0	0	0
04/15/2002	1032	0.752	0.412	0.583	95.951	2.296	0.337	0.080	0.067	0.031	0.020	0.053	0	0	0	0
04/14/2002	1032	0.771	0.399	0.583	95.969	2.272	0.340	0.080	0.067	0.031	0.020	0.051	0	0	0	0
04/13/2002	1032	0.747	0.402	0.582	96.052	2.231	0.329	0.076	0.064	0.029	0.020	0.051	0	0	0	0
04/12/2002	1032	0.777	0.413	0.583	95.920	2.310	0.329	0.078	0.065	0.032	0.021	0.055	0	0	0	0
04/11/2002	1033	0.829	0.418	0.584	95.753	2.391	0.353	0.080	0.066	0.032	0.022	0.057	0	0	0	0
04/10/2002	1034	0.818	0.432	0.585	95.582	2.546	0.362	0.083	0.068	0.032	0.022	0.055	0	0	0	0
04/09/2002	1033	0.788	0.431	0.584	95.699	2.483	0.352	0.081	0.066	0.030	0.020	0.050	0	0	0	0
04/08/2002	1032	0.781	0.415	0.583	95.922	2.305	0.337	0.080	0.066	0.029	0.018	0.047	0	0	0	0
04/07/2002	1034	0.778	0.427	0.584	95.773	2.378	0.378	0.086	0.074	0.032	0.021	0.052	0	0	0	0
04/06/2002	1032	0.809	0.416	0.584	95.824	2.367	0.351	0.075	0.062	0.029	0.020	0.048	0	0	0	0
04/05/2002	1035	0.839	0.395	0.586	95.577	2.497	0.419	0.093	0.074	0.034	0.022	0.050	0	0	0	0
04/04/2002	1033	0.736	0.398	0.583	95.937	2.321	0.360	0.078	0.063	0.031	0.022	0.053	0	0	0	0
04/03/2002	1035	0.777	0.389	0.585	95.737	2.404	0.404	0.096	0.076	0.035	0.023	0.059	0	0	0	0
04/02/2002	1036	0.781	0.404	0.586	95.627	2.466	0.414	0.098	0.081	0.038	0.025	0.065	0	0	0	0
04/01/2002	1036	0.760	0.436	0.586	95.613	2.455	0.429	0.098	0.082	0.038	0.026	0.064	0	0	0	0
03/31/2002	1035	0.756	0.456	0.585	95.688	2.400	0.410	0.092	0.077	0.036	0.024	0.060	0	0	0	0
03/30/2002	1033	0.762	0.710	0.587	95.369	2.425	0.427	0.094	0.083	0.039	0.028	0.063	0	0	0	0
03/29/2002	1037	0.806	0.435	0.587	95.462	2.536	0.438	0.103	0.090	0.039	0.026	0.065	0	0	0	0
03/28/2002	1036	0.751	0.431	0.585	95.671	2.434	0.407	0.096	0.079	0.038	0.025	0.068	0	0	0	0
03/27/2002	1037	0.730	0.454	0.586	95.575	2.513	0.421	0.097	0.080	0.038	0.025	0.066	0	0	0	0
03/26/2002	1037	0.780	0.441	0.586	95.489	2.545	0.435	0.101	0.086	0.037	0.024	0.061	0	0	0	0
03/25/2002	1036	0.762	0.431	0.585	95.658	2.430	0.425	0.095	0.080	0.035	0.023	0.060	0	0	0	0
03/24/2002	1036	0.771	0.409	0.585	95.683	2.401	0.426	0.104	0.087	0.037	0.023	0.060	0	0	0	0
03/23/2002	1034	0.751	0.397	0.584	95.875	2.334	0.379	0.087	0.071	0.033	0.021	0.052	0	0	0	0
03/22/2002	1032	0.660	0.424	0.581	96.122	2.209	0.342	0.076	0.063	0.031	0.021	0.053	0	0	0	0
03/21/2002	1034	0.653	0.423	0.582	96.006	2.292	0.362	0.081	0.069	0.034	0.024	0.056	0	0	0	0
03/20/2002	1035	0.647	0.441	0.583	95.892	2.346	0.388	0.087	0.073	0.037	0.027	0.061	0	0	0	0
03/19/2002	1034	0.683	0.463	0.583	95.793	2.441	0.362	0.078	0.066	0.035	0.025	0.055	0	0	0	0
03/18/2002	1034	0.733	0.417	0.583	95.839	2.409	0.349	0.078	0.066	0.033	0.023	0.052	0	0	0	0
03/17/2002	1034	0.696	0.423	0.583	95.901	2.381	0.349	0.077	0.065	0.033	0.023	0.052	0	0	0	0
03/15/2002	1036	0.783	0.473	0.586	95.383	2.689	0.401	0.091	0.074	0.033	0.021	0.052	0	0	0	0
03/14/2002	1039	0.820	0.448	0.588	95.185	2.748	0.478	0.115	0.092	0.038	0.022	0.054	0	0	0	0
03/13/2002	1034	0.811	0.439	0.585	95.584	2.554	0.361	0.084	0.068	0.031	0.019	0.049	0	0	0	0
03/12/2002	1033	0.827	0.468	0.585	95.517	2.637	0.327	0.070	0.058	0.028	0.018	0.050	0	0	0	0
03/11/2002	1032	0.794	0.472	0.584	95.628	2.560	0.325	0.070	0.058	0.027	0.018	0.049	0	0	0	0
03/10/2002	1032	0.812	0.451	0.584	95.742	2.438	0.320	0.075	0.063	0.029	0.019	0.052	0	0	0	0
03/09/2002	1031	0.760	0.446	0.582	95.896	2.389	0.293	0.067	0.057	0.027	0.017	0.048	0	0	0	0

03/08/2002	1032	0.718	0.452	0.582	95.872	2.446	0.304	0.065	0.057	0.026	0.017	0.045	0	0	0	0
03/07/2002	1031	0.783	0.436	0.583	95.883	2.383	0.301	0.066	0.059	0.027	0.017	0.044	0	0	0	0
03/06/2002	1030	0.737	0.420	0.581	96.106	2.240	0.289	0.064	0.056	0.026	0.018	0.044	0	0	0	0
03/05/2002	1029	0.726	0.433	0.581	96.117	2.284	0.252	0.055	0.049	0.024	0.016	0.044	0	0	0	0
03/04/2002	1031	0.748	0.449	0.582	95.945	2.335	0.304	0.065	0.058	0.029	0.021	0.047	0	0	0	0
03/03/2002	1031	0.770	0.432	0.583	95.898	2.360	0.315	0.068	0.059	0.029	0.020	0.048	0	0	0	0
03/02/2002	1030	0.760	0.395	0.581	96.094	2.258	0.285	0.062	0.054	0.027	0.018	0.046	0	0	0	0
03/01/2002	1031	0.718	0.417	0.582	95.992	2.365	0.303	0.061	0.054	0.026	0.018	0.046	0	0	0	0
02/28/2002	1031	0.742	0.437	0.582	95.890	2.468	0.271	0.055	0.049	0.024	0.017	0.048	0	0	0	0
02/27/2002	1034	0.727	0.443	0.584	95.729	2.507	0.346	0.075	0.066	0.032	0.022	0.053	0	0	0	0
02/26/2002	1035	0.695	0.467	0.584	95.632	2.618	0.352	0.072	0.065	0.030	0.022	0.048	0	0	0	0
02/25/2002	1033	0.751	0.471	0.584	95.553	2.687	0.332	0.061	0.055	0.027	0.020	0.043	0	0	0	0
02/24/2002	1035	0.769	0.500	0.586	95.394	2.715	0.387	0.071	0.067	0.029	0.021	0.048	0	0	0	0
02/23/2002	1034	0.790	0.479	0.585	95.482	2.660	0.357	0.069	0.061	0.029	0.021	0.052	0	0	0	0

Y63

Best Available Copy

# **TexPar Energy, Inc.**

## **ENERGY MARKETERS**

### Laboratory Analysis Report

Date: 06/04/02

Client: City of Tallahassee

Sample#:

Terminal: Motiva

Product: #2 H.S. Fuel Oil (Flint Hill) Resources, Koch)

Test:	Results:	Method:
API @ 60F	✓ 37.4	ASTM D 4052
Viscosity	✓ 32 ssu @ 100F	ASTM D 445
Sulfur	✓ 0.35%	ASTM D 2622
Ash	✓ 0.01%	ASTM D 482
Flash Point	✓ 147F	ASTM D 93
Pour Point:	✓ <5	ASTM D 97
Water	✓ 0.01%	ASTM D 95
MMBTu/Barrel	✓ 5.91	ASTM D 240
Sediment, mass%:	✓ 0.005	ASTM D 473

specs OK -  
David Byrne, WES.  
6/4/02

**ITS****Intertek Testing Services****Caleb Brett**REPORT OF ANALYSIS

Vessel : TTT 261  
 Port/Terminal : IMTT ST. ROSE, LA.  
 Client Ref : B05-02-031  
 Our Ref : GR/20-021375  
 Date Sample Taken : 05/18/2002  
 Date Submitted : 05/18/2002  
 Date Tested : 05/19/2002  
 Sample Designated As: NO.6 FUEL OIL  
 Drawn By : PERSONNEL OF ITS CALEB BRETT  
 Representing : HANDBLEND #1: SEE BELOW FOR DESCRIPTION  
 Lab Reference : 1375-1

TEST	METHOD	RESULT	UNITS
Gravity, API @ 60 F	D1298	10.7	Deg/API
Sulfur Content	D4294	0.965	Wt. %
Viscosity, Kin @ 122 F	D445	111.7	Cst
Viscosity, SFS @ 122 F	D2161	52.59	Secs
Flash Point (PMCC) Procedure B	D93	>200	Deg. F
Pour Point	D97	21.2	Deg. F
Water by Distillation	D95	0.45	Vol. %
Sediment by Extraction	D473	0.07	Wt. %
Ash Content	D482	0.089	Wt. %
Asphaltene Content	IP143	1.7	Wt. %
Heat of Combustion	D4868	6383553	BTU/BBL
Vanadium	D5863	13	ppm

HANDBLEND #1: S/T 1 (19.4%), S/T 101 (38.9%), S/T 254 (41.7%).

  
 ITS - Caleb Brett

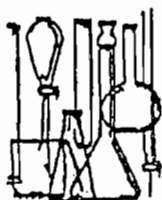
For 582a

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APR 18 '96 01:49PM PURDOM PLANT

P.2

TYPICAL ANALYSIS - USED OIL



Telephone  
(904) 725-2040  
FAX  
(904) 727-9720

SOUTHEASTERN CHEMISTS' LABORATORIES  
P.O. Box 8917  
Jacksonville, FL 32239

Report Date: October 1, 1992

Laboratory Marks: Job # 34937 Date Sampled:

Sample of: Waste Oil Date Received: September 18, 1992

Client: City of Tallahassee, Hopkins Power Plant Rt. 4 Box 450 Geddies Road,  
Tallahassee, FL 32304

Sample Marks: Hopkins Power Plant

CERTIFICATE OF ANALYSIS

<u>Parameters</u>	<u>Method</u>	<u>Results</u>	<u>Analyst</u>	<u>Date/Time</u>
Total Organic Halogens (as chlorine) % by weight	ASTM D808	<0.1 %	FAR	9-21-92/1300
Flashpoint	ASTM D93	>140 F	FAR	9-21-92/1100
Arsenic	SW 7060	<0.010 mg/kg	DDA	9-23-92/1000
Cadmium	SW 7130	0.05 mg/kg	MAZ	10-1-92/1100
Chromium	SW 7190	<0.50 mg/kg	MAZ	10-1-92/1200
Lead	SW 7420	3.53 mg/kg	MAZ	9-25-92/1100

All samples analyzed in accordance with EPA, ASTM, or other approved methods.

Respectfully submitted,

Joseph W. Newton, President  
EPA Accreditation #4352 DER #900384G  
NIOSH Accreditation #32211 HRS #E82253  
EPA Inspector #I153, 381 HRS #82366  
Management #M123, 352  
T/NAVLAP Accreditation #1632

N/P

FILE  
HOPKINS  
10/1/92

**ATTACHMENT EU05-03**  
**DESCRIPTION OF STACK SAMPLING FACILITIES**

Arva B. Hopkins Generating Station  
July 1, 2002

### **Stack Sampling Facilities**

Unit No. 2 at the Arvah B. Hopkins Generating Station (EU-05) requires stack sampling on an annual basis. As such, permanent stack testing facilities have been installed on the unit's exhaust stack.

All test facilities are in accordance with Rule 62-297.310(6), Florida Administrative Code. These facilities also meet any Occupation Safety and Health Administration Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

Testing equipment which is not permanently mounted, such as safety harnesses and electrical outlets, are made available for use by sampling personnel during each sampling event. Detailed drawings are attached.

**EU05-03**

**Arvah B. Hopkins Generating Station**

**July 1, 2002**

**ATTACHMENT EU05-04**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**



### **Procedures for Startup and Shutdown**

The City of Tallahassee follows best operational practices in the startup and shutdown of the boilers at the Hopkins Generating Station. Under normal conditions, standard operating guidelines are followed for startup and shutdown of the boilers. Under any abnormal condition of operation, best operational practices are followed to minimize emissions and to minimize the duration of any excess emissions.

**EU05-04**

**Aryah B. Hopkins Generating Station**

**July 1, 2002**

**ATTACHMENT EU05-05**  
**ALTERNATIVE METHODS OF OPERATION**

### Alternative Methods of Operation

Boiler No. 2 (EU-05) has a maximum heat input rate of 2500 mmBtu/hr heat input. This heat input rate applies to the firing of natural gas and any mixture of natural gas with other fuel oils. The maximum fuel oil heat input rate is 2325 mmBtu/hr.

The alternative methods of operation (AMOs) associated with the boiler are related to the type of fuel being fired and load. The boiler is currently rates at a nominal 238 MW. The current AMO's include the following:

- ❖ Natural Gas Firing – up to maximum rate of 2500 mmBtu/hr
- ❖ Liquid Propane – up to max rate of 2500 mmBtu/hr
- ❖ Fuel Oil Firing – up to maximum rate of 2325 mmBtu/hr
  - Fuel Grade No. 6
  - On-Spec Waste Oil
  - Distillate Fuel Oils
  - Co-firing and combination of Fuel Oil No. 6, Distillate Fuel Oils, and/or On-Spec Used Oil, with Natural Gas or Liquid Propane up to 2325 mmBtu/hr

Note: Fuel additives typically of a magnesium oxide, hydroxide, sulfonate, or calcium nitrate origin may be used.

**ATTACHMENT EU05-06**  
**ADDITIONAL APPLICABLE REQUIREMENTS**

### Additional Applicable Requirements

*The City of Tallahassee requests the following revisions to be incorporated into the Title V Operating Permit:*

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

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
-004	2,500	Natural Gas <u>and Liquid</u>
		<u>Propane</u>
	2,325	No. 2 thru No. 6 Fuel Oil

Note: When a blend of fuel oil and natural gas is fired, the allowable heat input is prorated based on the percent heat input of each fuel.

[Rules 62-4.160(2), 62-210.200(PTE) & 62-296.405, F.A.C.; and, Applicant request dated June 18, 1997.]

**B.3. Methods of Operation - Fuels.** The fuels that are allowed to be burned in this boiler are natural gas, liquid propane, and/or new No. 2 thru No. 6 fuel oil and/or on-specification used oil (See Specific Condition B.37).

LP gas is used as the igniter fuel when natural gas is not available. Fuel additives typically of a magnesium oxide, hydroxide or sulfonate, or calcium nitrate origin may be used.

[Rule 62-213.410, F.A.C.; and, Applicant Request in initial Title V permit application dated June 14, 1996.]

**B.33. The owners or operators of facilities for which monitoring is required shall submit** to the Department a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of two years.

[Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

**B.37(e) Testing Requirements:** The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:

Arsenic, cadmium, chromium, lead, total halogens and flashpoint ~~and PCBs~~.

If determined to be present, pursuant to 40 CFR 761(20)(e), the owner or operator shall also sample and analyze for PCBs.

Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

EU05-06

Arvahn B. Hopkins Generating Station  
July 1, 2002

**B.37(g) Reporting Requirements:** ~~The owner of operator shall submit to the Northwest District office, within thirty days of the end of each calendar quarter, the analytical results and the total amount of on-specification used oil generated and burned during the quarter.~~

The owner of operator shall submit, with the Annual Operation Report form, the analytical results required above and the total amount of on-specification used oil placed into inventory to be burned and the total amount of on-specification used oil burned during the previous calendar year.

EU05-06

Arva B. Hopkins Generating Station

July 1, 2002

**ATTACHMENT EU05-07**  
**ACID RAIN PART APPLICATION**

# Phase II Acid Rain Part Application

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

This submission is: ☐ New ☐ Revised ☒ Renewal

## STEP 1

Identify the source by plant name, State, and ORIS code from NADB

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

**STEP 2** Enter the unit ID# for each affected unit and indicate whether a unit is being repowered and the repowering plan being renewed by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

a Unit ID#	<div style="text-align: center;">Compliance Plan</div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">b Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)</div> <div style="width: 45%;">c Repowering Plan</div> </div>	d New Units  Commence Operation Date	e New Units  Monitor Certification Deadline
Boiler No. 1 (EU ID No. 001)	Yes	No	
Boiler No. 2 (EU ID No. 004)	Yes	No	
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

## STEP 3

Check the box if the response in column c of Step 2 is "Yes" for any unit

☐ For each unit that is being repowered, the Repowering Extension Plan form is included.



**STEP 4**

Read the standard requirements and certification, enter the name of the designated representative, and sign and date

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

**Standard Requirements**Acid Rain Part Requirements.

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

Monitoring Requirements.

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

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 72.6(a)(3)(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain part application, the Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

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

Excess Emissions Requirements.

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

Recordkeeping and Reporting Requirements.

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

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

Recordkeeping and Reporting Requirements (cont)

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

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8 or 72.14, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 shall be construed as:

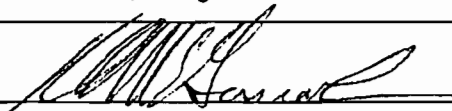
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of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

Certification

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

Name: **Robert E. McGarrah, Manager of Power Production, City of Tallahassee**

Signature:

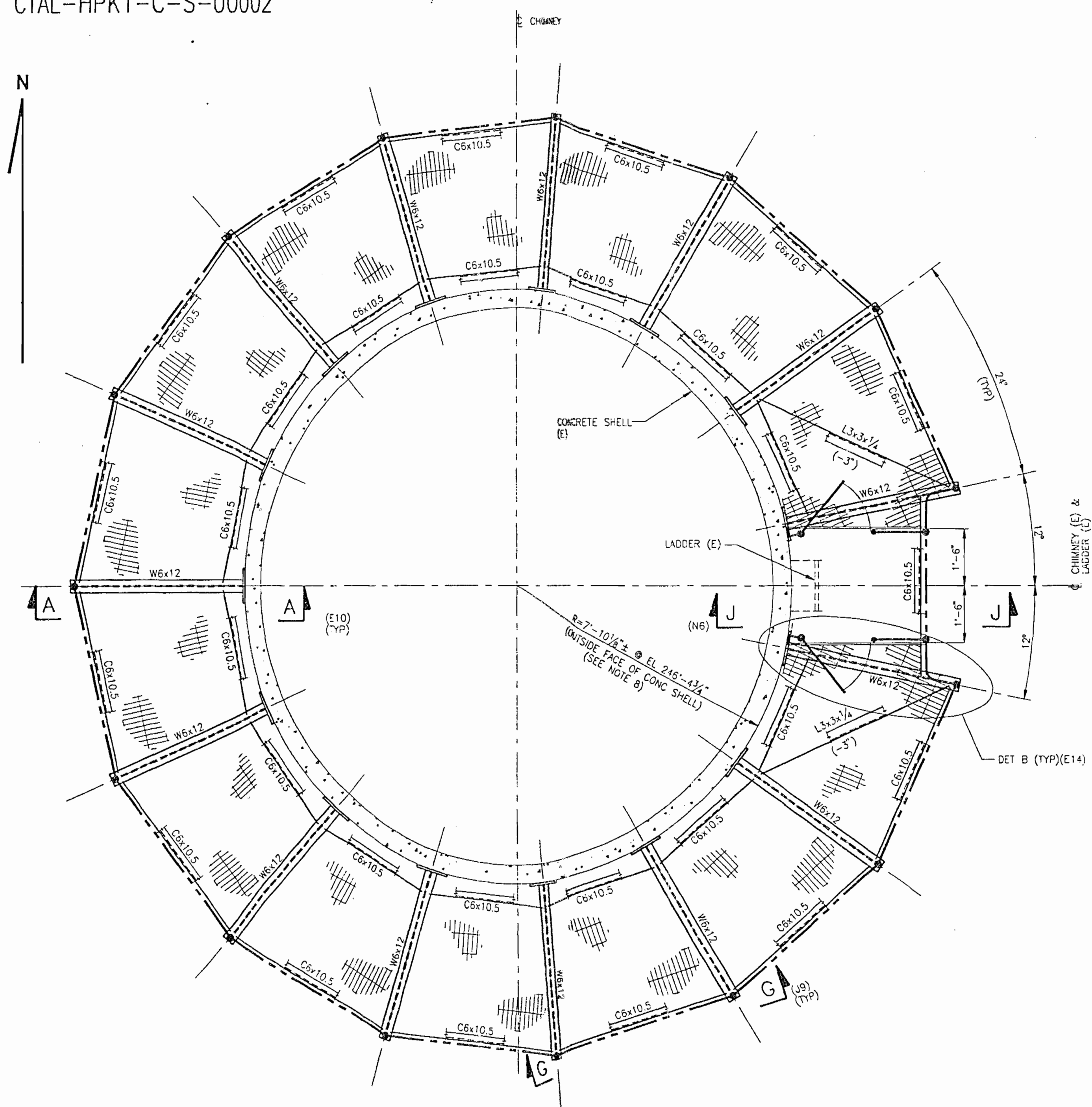


Date: **July 1, 2002**

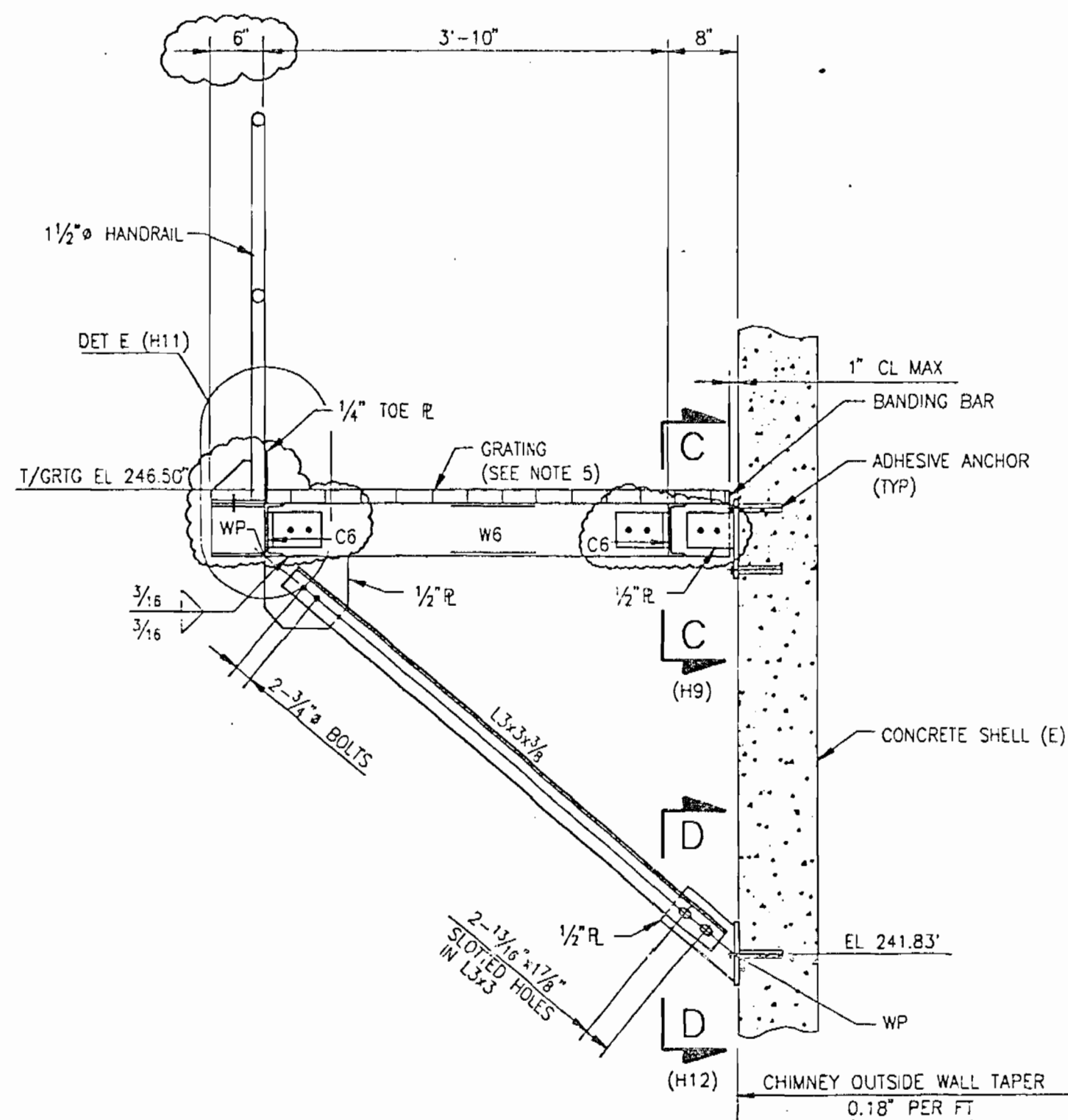
CTAL-HPK1-C-S-00002

REV NO	DATE	REVISION	DR	CH	APPROVED
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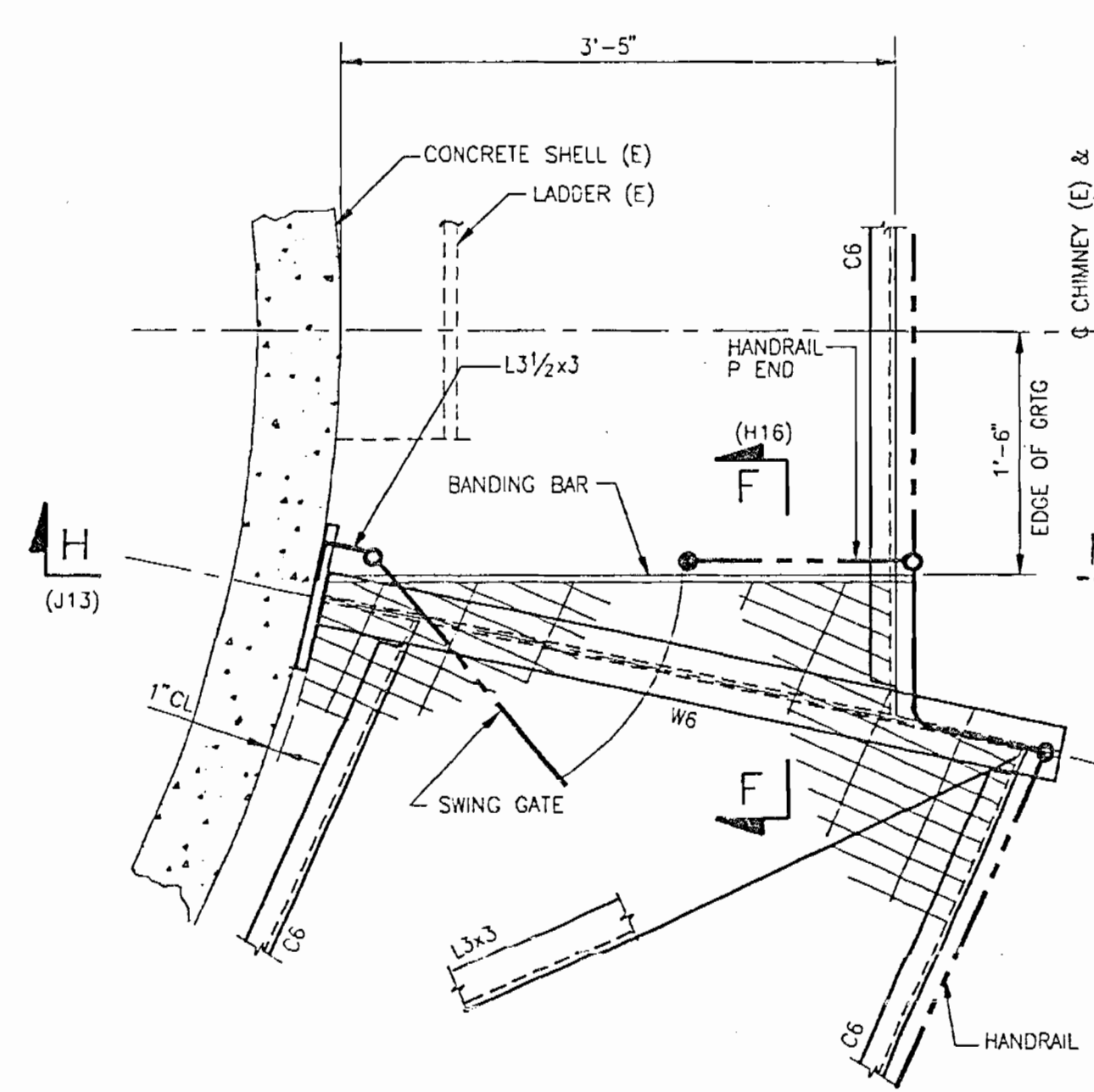
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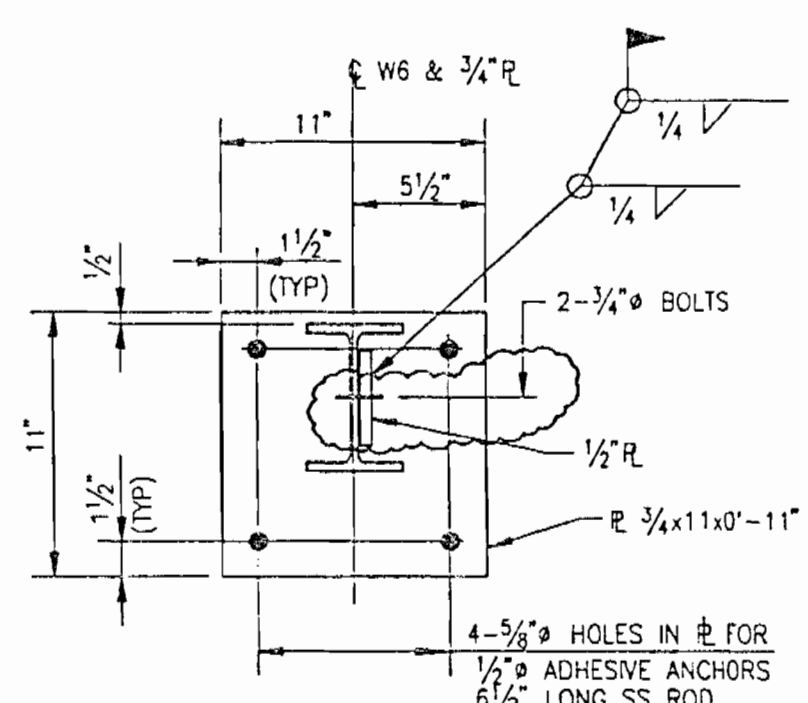
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DESIGN LIVE LOAD=150 PSF  
(TOS - 1/4" TYP UN)



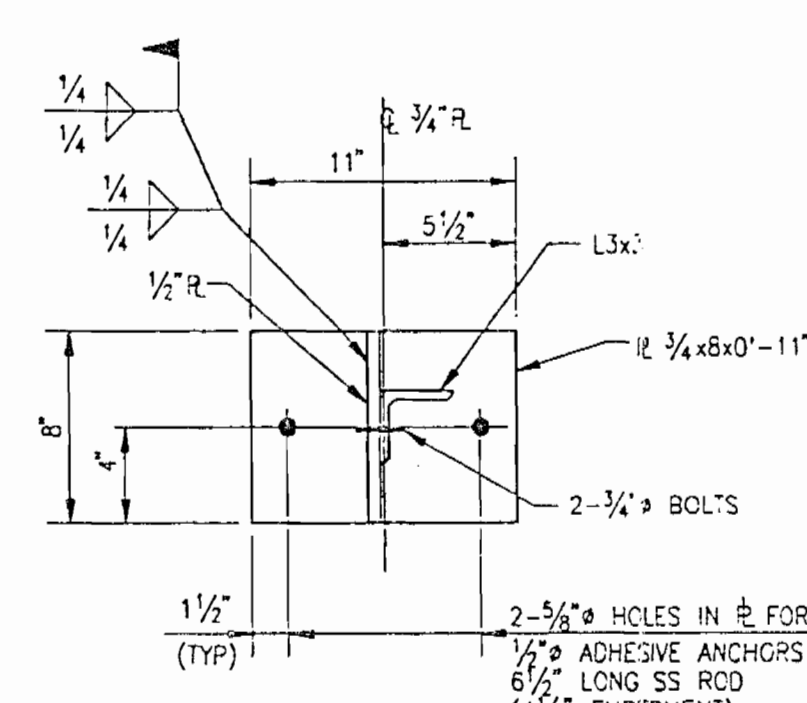
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3/4"=1'-0"



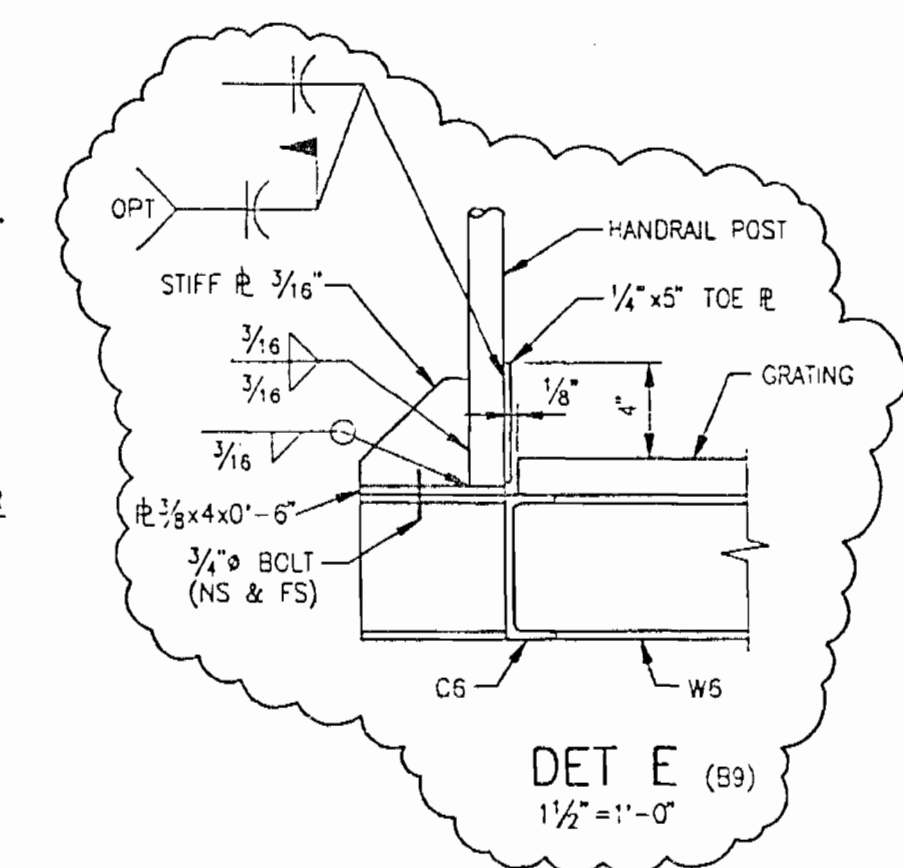
SECTION B (F7)  
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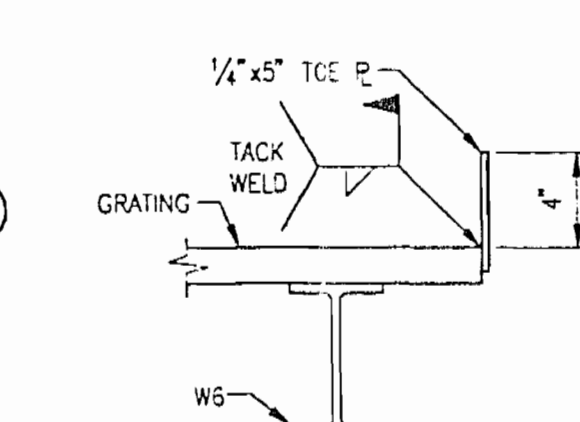
SECTION C (D10)  
1 1/2"=1'-0"



SECTION D (E10)  
1 1/2"=1'-0"



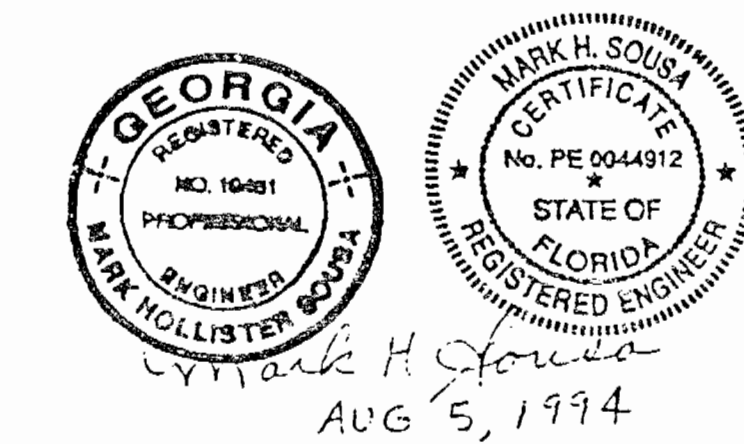
SECTION E (B9)  
1 1/2"=1'-0"



SECTION F (C14)  
NTS

- NOTES:
- DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH EBASCO SPECIFICATION CTAL-4015-C-01.
  - STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH ASTM A36, UNLESS NOTED OTHERWISE.
  - (E) DENOTES EXISTING.
  - (G) DENOTES HANDRAIL.
  - ALL BOLTED CONNECTIONS SHALL BE 3/4" A325 BOLTS UNLESS NOTED.
  - ALL GRATING SHALL BE GALVANIZED AND HAVE 1 1/2" DEEP BEARING BARS.
  - AFTER FABRICATION, ALL STEEL SURFACES (EXCEPT STAINLESS STEEL SURFACES) SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH SPECIFICATION CTAL-4015-C-01. AFTER ERECTION, ALL DAMAGED GALVANIZED SURFACES SHALL BE PREPARED AND TOUCHED-UP BY ERECTOR IN ACCORDANCE WITH SPECIFICATION CTAL-4015-C-01.
  - ERECTOR SHALL FURNISH THE SHERWIN-WILLIAMS ZINC CHAD 5, 869445 PAINT REQUIRED FOR FIELD TOUCH-UP OF GALVANIZED SURFACES.
  - ADHESIVE ANCHORS SHALL BE HILTI HVA ADHESIVE ANCHORS WITH COMPONENTS AND DIMENSIONS AS SHOWN. ADHESIVE ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
  - CONTRACTOR SHALL CONFIRM DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION AND INSTALLATION. IF DEVIATIONS ARE FOUND, NECESSARY ADJUSTMENT SHALL BE MADE. AFTER NOTIFYING OWNER.
  - ANY SURFACE AREA OF THE CHIMNEY WITH DAMAGED PAINT FINISH DUE TO CONSTRUCTION SHALL BE REPAINTED BY THE CONTRACTOR. CONTRACTOR SHALL SUPPLY TO GALLONS OF PAINT FOR TOUCH-UP REPAIRS. COLOR AND TYPE OF PAINT SHALL BE SUBMITTED TO PLANT ENGINEER FOR APPROVAL PRIOR TO PURCHASE.

REFERENCE DRAWINGS:  
CONTINENTAL CHIMNEY COMPANY:  
200"x11" I.D. REINFORCED CONCRETE CHIMNEY - OUTLINE DWG 4664-1  
CHIMNEY DETAILS OF BALCONY, LADDER, AND CAST IRON CAP 4664-2



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CITY OF TALLAHASSEE  
ARVAH B. HOPKINS GENERATING STATION  
CONTINUOUS EMISSIONS MONITORING

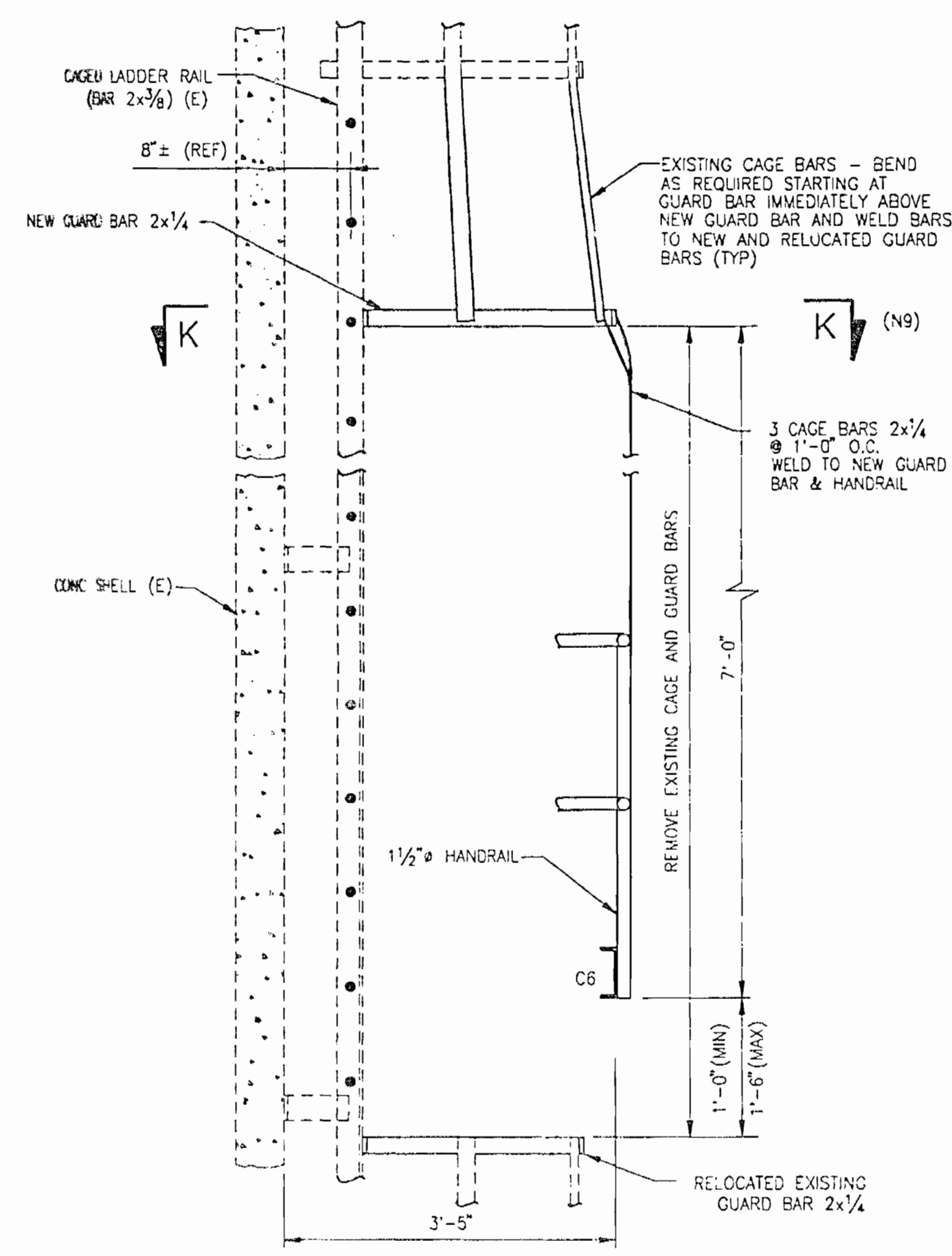
UNIT 1 CHIMNEY PLATFORM  
PLAN, SECTIONS AND DETAILS

EBASCO SERVICES INCORPORATED  
145 TECHNOLOGY PARK, NORCROSS, GA. 30092-2979

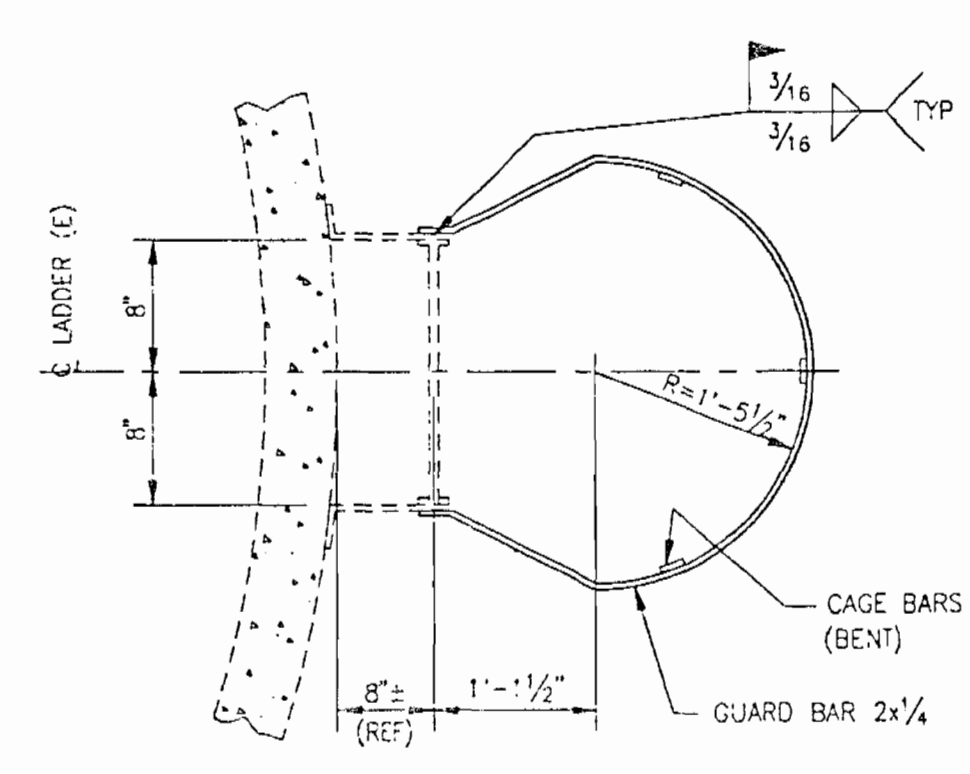
SCALE 1/2"=1'-0" UN  
DEPT. CIVIL  
DR. G. FRANK  
CH. J. SMITH

APPROVED  
MARK H. SOUSA  
FK

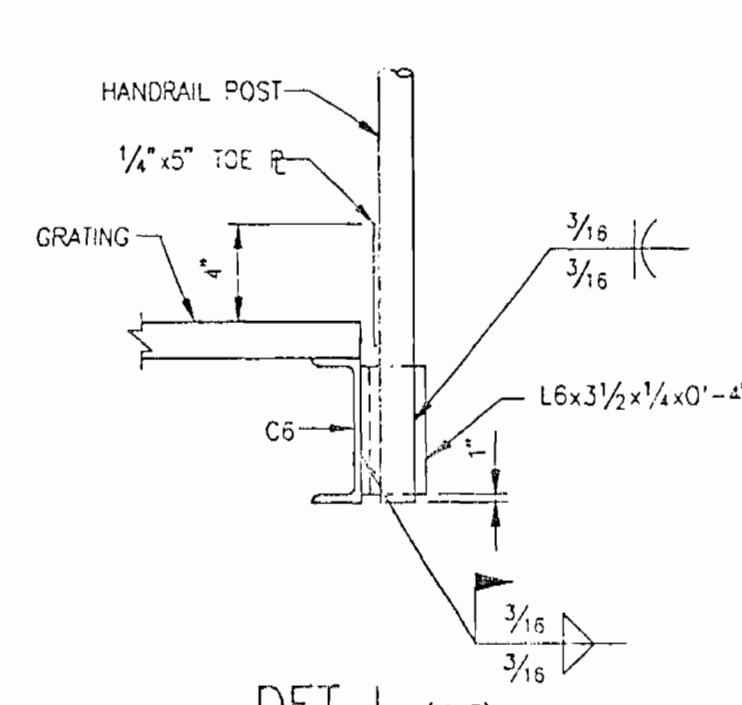
DATE 12-29-93  
CTAL-HPK1-C-S-00002



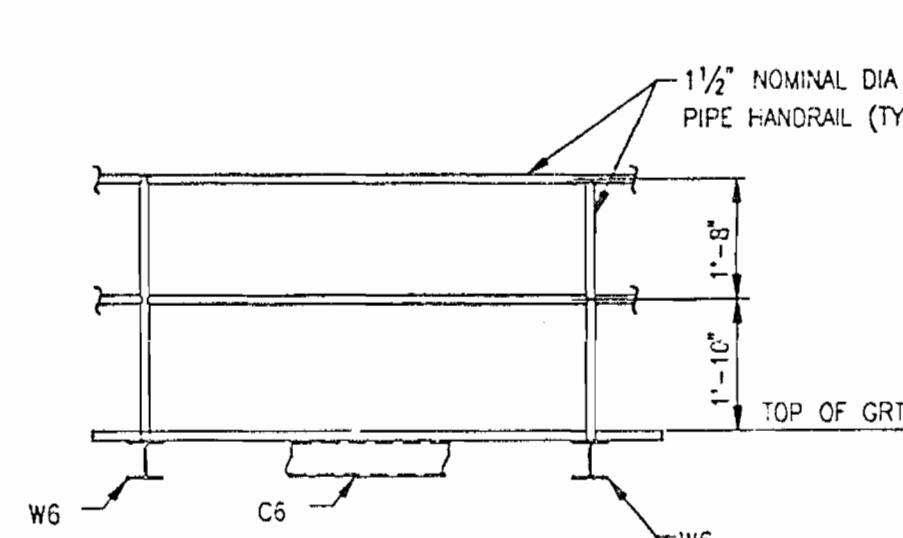
SECTION J (D5)  
3/4"=1'-0"



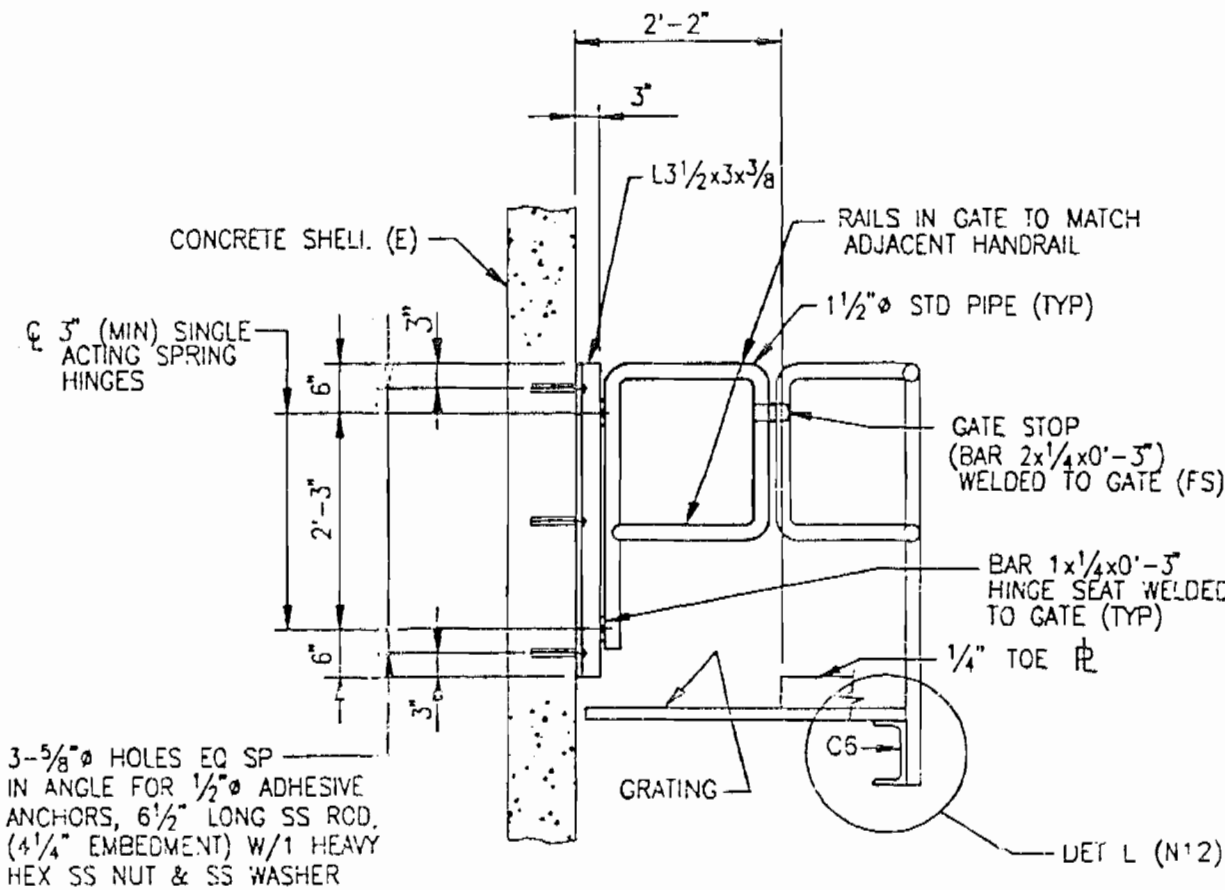
SECTION K (J6)  
3/4"=1'-0"



SECTION L (K13)  
SEE DET E FOR A.D.L. INFO  
NTS

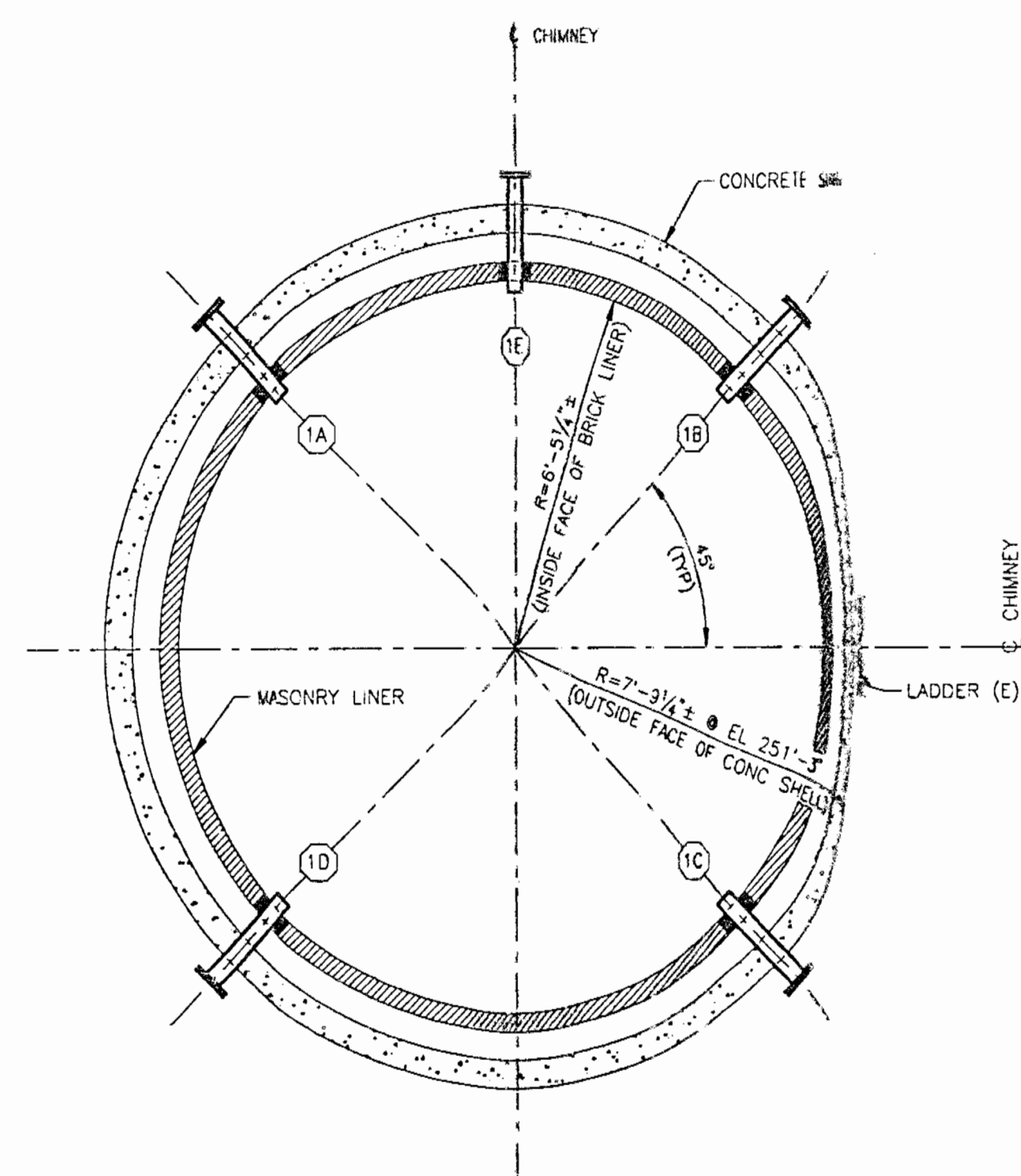


SECTION G (H5)  
NTS

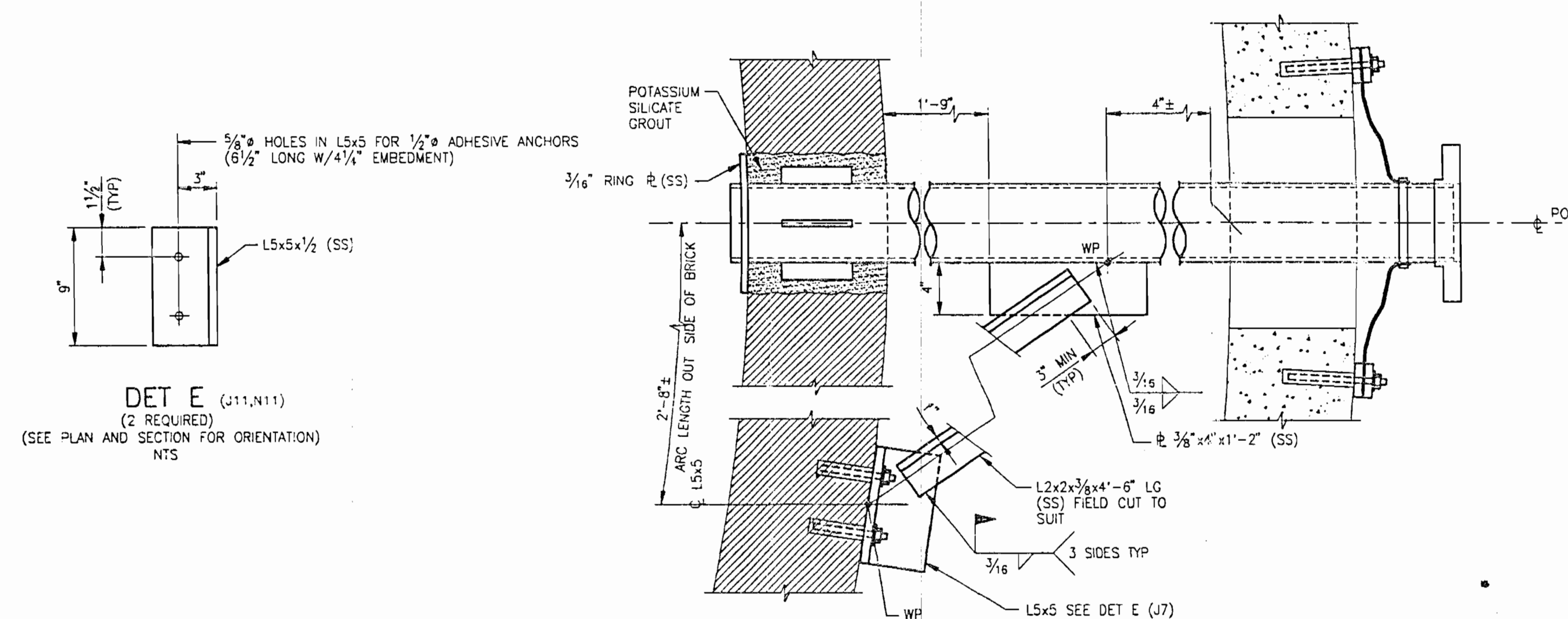


SECTION H (C12)

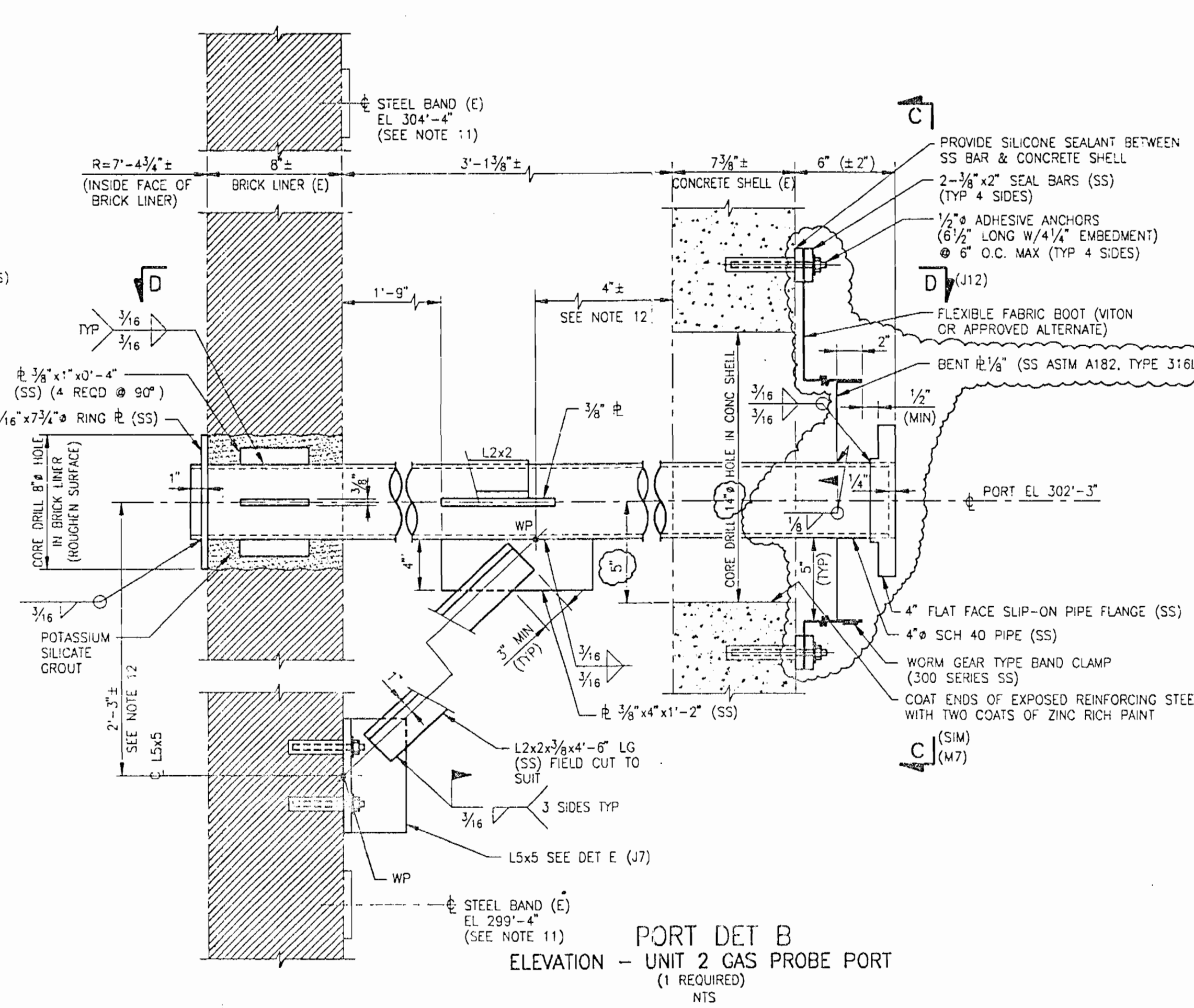
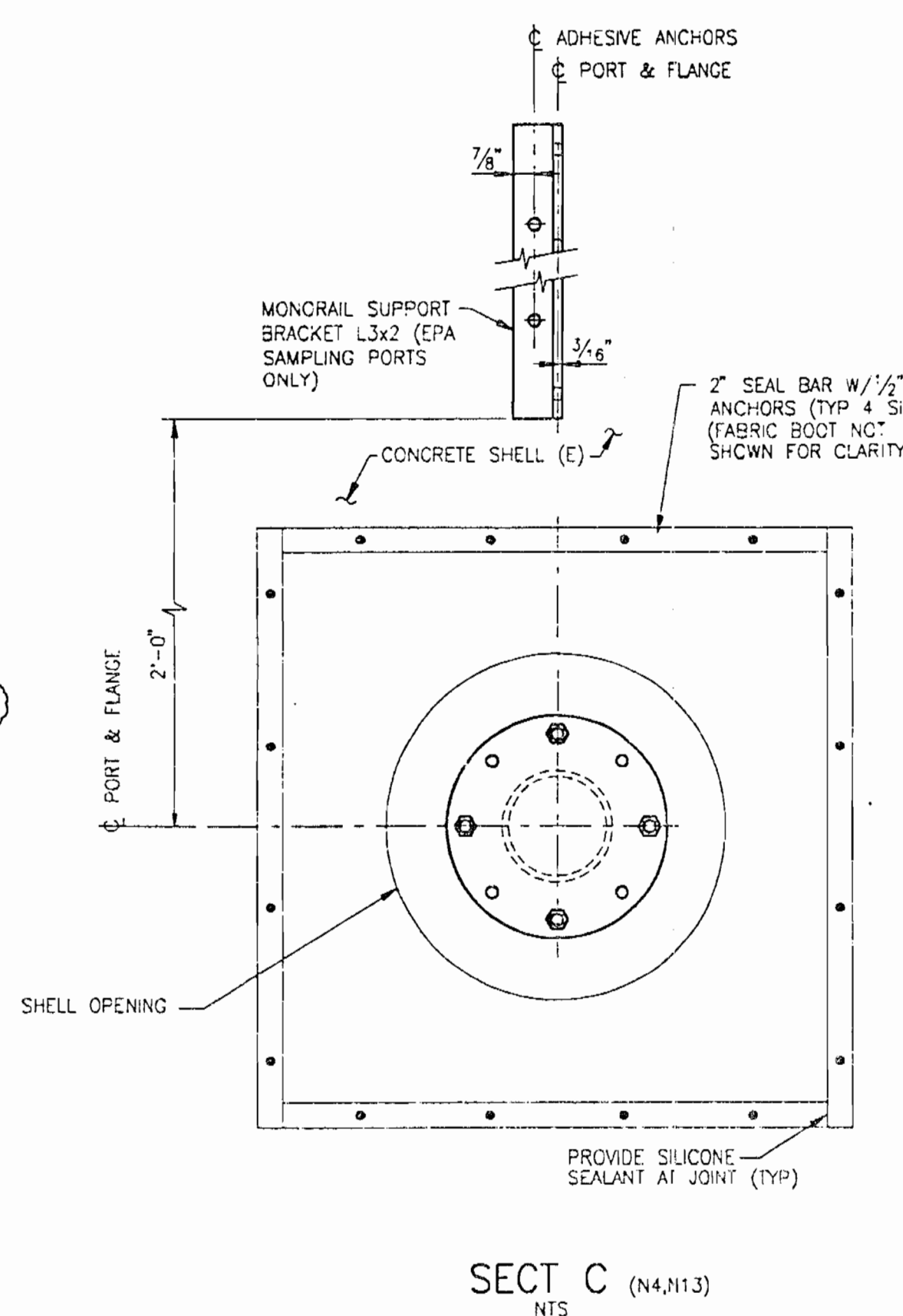
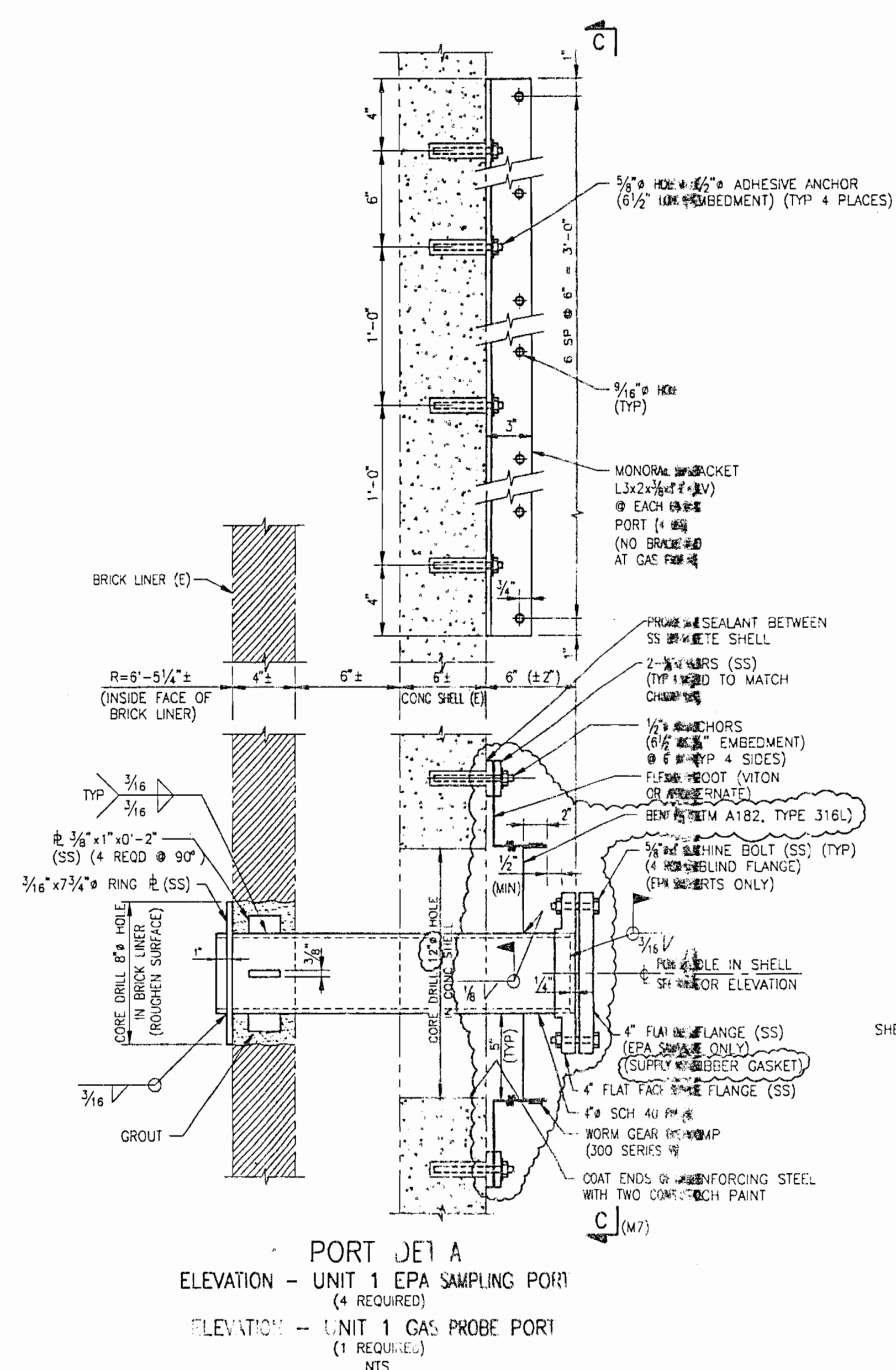




PLAN - UNIT 2 PORT ARRANGEMENT AT EL 302'-3"  
TOP OF CHIMNEY FOUNDATION EL 136'-0"



SECTION D (L13)  
PLAN - UNIT 2 GAS PROBE PORT  
(FOR INFORMATION NOT SHOWN SEE PORT DETAIL B)  
NTS



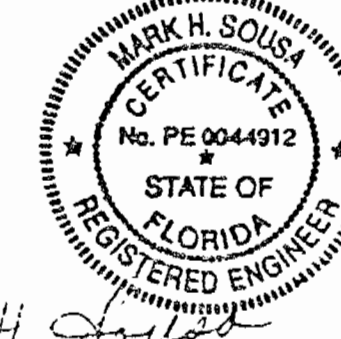
CONTINUOUS EMISSIONS MONITORING (CEM) PORT SCHEDULE						
	PORT IDENTIFICATION	NOMINAL DIAMETER	ELEVATION (C.O.D POSITION)	CEM FUNCTION	PORT DETAIL	REMARKS
UNIT 1	(1A)	4"	251'-3"	EPA SAMPLING	A	NEW PORT
	(1B)	4"	251'-3"	EPA SAMPLING	A	NEW PORT
	(1C)	4"	251'-3"	EPA SAMPLING	A	NEW PORT
	(1D)	4"	251'-3"	EPA SAMPLING	A	NEW PORT
	(1E)	4"	252'-0"	GAS PROBE	A	NEW PORT
UNIT 2	(2A)	4"	303'-0"	EPA SAMPLING	---	EXISTING PORT SEE NOTE
	(2B)	4"	303'-0"	EPA SAMPLING	---	EXISTING PORT SEE NOTE
	(2C)	4"	303'-0"	EPA SAMPLING	---	EXISTING PORT SEE NOTE
	(2D)	4"	303'-0"	EPA SAMPLING	---	EXISTING PORT SEE NOTE
	(2E)	4"	302'-3"	GAS PROBE	B	NEW PORT

## NOTES:

- DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH EBASCO SPECIFICATION CTAL-2416-C-01.
- STEEL SHALL BE IN ACCORDANCE WITH ASTM A36, UNLESS NOTED OTHERWISE.
- STAINLESS STEEL (SS) PIPE SHALL BE IN ACCORDANCE WITH ASTM A312, TYPE 316L. STAINLESS STEEL (SS) PLATES SHALL BE IN ACCORDANCE WITH ASTM A182, TYPE 316L.
- STAINLESS STEEL (SS) PIPE FLANGES SHALL BE ANSI CLASS 150 LB AND SHALL BE IN ACCORDANCE WITH ASTM A182, TYPE 316L.
- FOR WELDING OF STAINLESS STEEL TO STAINLESS STEEL, ELECTRODES SHALL BE ANSI/AWS A5.9, CLASS ER316L OR A5.4, CLASS E316L FOR WELDING OF STAINLESS STEEL TO CARBON STEEL (CS), ELECTRODES SHALL BE ANSI/AWS A5.9, CLASS ER309 OR A5.4, CLASS E309.
- STAINLESS STEEL (SS) MACHINE BOLTS SHALL BE IN ACCORDANCE WITH ASTM A320, GRADE B8. NUTS SHALL BE IN ACCORDANCE WITH ASTM A194, GRADE 8.
- ALL ADHESIVE ANCHORS SHALL BE HILTI HIT C-100 WITH HAS SS RODS AS MANUFACTURED BY HILTI, INC. OR APPROVED ALTERNATE. ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ADHESIVE ANCHORS SHALL BE PROVIDED WITH 1 HEAVY HEX SS NUT AND 1 STANDARD SS WASHER.
- ALL GALVANIZED CARBON STEEL SURFACES SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
- ALL ELEVATIONS LOCATING PORTS ARE BASED ON THE BRICK LINER IN THE "COLD POSITION".
- GROUT FOR PORT OPENINGS SHALL BE SECAR 41 AS MANUFACTURED BY LEFARGE CALCEM ALUMINATES, OR APPROVED ALTERNATE, AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- PRIOR TO INSTALLATION OF THE UNIT 2 GAS PROBE PORT, CONTRACTOR SHALL VERIFY THE ELEVATIONS OF THE EXISTING BRICK STEEL LINER BANDS IN THE VICINITY OF THE NEW UNIT 2 GAS PROBE PORT. ANY DISCREPANCIES WITH THE ELEVATIONS OF THE BANDS AS SHOWN IN DETAIL B WHICH MAY CAUSE INTERFERENCES WITH THE PORT SHALL BE REPORTED TO THE ENGINEER FOR RESOLUTION PRIOR TO CORE DRILLING OPENINGS.
- CONTRACTOR MAY SHIFT THE ELEVATION OF THE 5x5 ANGLE SHOWN IN DETAIL B DOWN AS REQUIRED TO AVOID INTERFERENCE WITH THE EXISTING STEEL LINER BANDS. THE LOCATION OF THE PORT TO BRACKET CONNECTION WORK POINT SHOULD BE SHIFTED SUCH THAT THE BRACKET ANGLE REMAINS APPROXIMATELY 45°. THE 2x2 ANGLE BRACKET SHALL BE FIELD CUT TO FIT. CONTRACTOR SHALL DOCUMENT FINAL LOCATION OF ANGLE SO THAT DRAWINGS MAY BE REVISED TO REFLECT AS-BUILT CONDITION.
- (E) DENOTES EXISTING.
- EXISTING UNIT 2 EPA SAMPLING PORTS REQUIRE NO MODIFICATIONS.
- UPON COMPLETION OF CONSTRUCTION, ANY TEMPORARY LUGS WELDED TO EXISTING STEEL SHALL BE REMOVED AND THE EXISTING STEEL SURFACE GROUND SMOOTH AND REPAINTED WITH ZINC-RICH ORGANIC PRIMER AND A FINAL COAT TO MATCH THE EXISTING PAINT.
- ANY SURFACE AREA OF THE CHIMNEY WITH DAMAGED PAINT FINISH DUE TO CONSTRUCTION SHALL BE REPAINTED BY THE CONTRACTOR. CONTRACTOR SHALL SUPPLY 10 GALLONS OF PAINT FOR TOUCH-UP REPAIRS. COLOR AND TYPE OF PAINT SHALL BE SUBMITTED TO THE PLANT ENGINEER FOR APPROVAL PRIOR TO PURCHASE.

## REFERENCE DRAWINGS:

CONTINENTAL-HEINE CHIMNEY COMPANY: (UNIT 1)  
200'-0"x11'-0" ID REINFORCED CONCRETE CHIMNEY OUTLINE DRAWING 4664-1  
CUSTOMS: (UNIT 2)  
MAIN COLUMN  
OPENING DETAILS  
ORIENTATIONS  
C1-1-818-A  
C1-1-818-B  
C1-1-818-C



AUG 5, 1994

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CITY OF TALLAHASSEE  
ARVAH B. HOPKINS GENERATING STATION  
CONTINUOUS EMISSIONS MONITORING  
UNITS 1 AND 2 CHIMNEY PORTS  
ARRANGEMENTS AND DETAILS

EBASCO SERVICES INCORPORATED

SCALE: 3/8"=1'-0" UN  
DEPT. CIVIL  
DR. J. NORRIS  
CH. J. SMITH  
APPROVED: MARK H. SOUSA  
F. KLEBAN  
DATE: JULY 22, 1993  
CTAL-HPK0-C-M-00001

ATTENTION: ANY REVISION TO THIS DRAWING MUST BE MADE BY COMPUTER AIDED DESIGN



