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AUG 27 2012

DIVISION OF AIR
RESOURCE MANAGEMENT



Transmitted Via Certified Mail: 7011 0470 0001 0594 2526

Most Livable City in America

August 23, 2012

Martin Costello, P. E.
Division of Air Resources Management
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, Florida 32399-2400

Re: Title V Air Operation Permit Renewal Application
Request for Additional Information
Arvah B. Hopkins Generating Station (Facility ID 0730003)

Dear Mr. Costello:

This letter is in response to your request dated June 20, 2012 for additional information concerning the Title V Air Operation Permit Renewal Application for the City of Tallahassee's Arvah B. Hopkins Generating Station. In particular, the Department requested two items of information. These items and the City's responses are listed below:

1. In letter dated May 16, 2012, regarding changes to the Title V permit for the Hopkins facility, you requested changes to Specific Condition E.25 to reduce the frequency of compliance testing from annual to only during years when the simple cycle mode has been used. The Title V renewal process cannot be used to change requirements in construction permits. Since the annual test requirement was established in Condition 22 of permit No. 0730003-009-AC for EU-033, please submit an application for an AC permit revision if you wish to accommodate this change at this time.

Response: At this time, the City of Tallahassee would like to withdraw this request and perhaps pursue this at a later date.

2. From the information provided with the annual operations reports (AOR), it is conceivable that oil has been fired in Unit 1 for more than 400 hours/yr during the period covered by the existing Title V permit. However, it does not appear that particulate matter (PM) compliance tests have been performed while firing oil. For any year during the past 5 years that oil was fired (including used oil) for more than 400 hrs, please provide the test results for the required compliance tests. If no tests were conducted in this case, please revise the compliance statement appropriately and provide a compliance plan committing to a schedule for completing the required compliance tests for PM.

Response: Listed below are the operating hours of Unit 1 on oil and gas for the past 5 years, as reported to US EPA via the Clean Air Markets Division (Part 75 reporting). In no year was oil fired for more than 400 hours.

Year	Hours of operation on gas	Hours of operation on oil	Total hours of operation
2007	7490	0	7490
2008	4525.38	86	4611
2009	3637.21	3.05	3640.26
2010	5241	237	5478
2011	4389	52	4441
2012 (until 6/30/12)	2086	0	2086

CITY HALL
300 South Adams Street
Tallahassee, FL 32301-1731
850-891-0000
TDD: 711 • Talgov.com

JOHN R. MARKS, III
Mayor

ANITA F. THOMPSON
City Manager

ANDREW GILLUM
Commissioner

JAMES R. ENGLISH
City Attorney

NANCY MILLER
Commissioner

JAMES O. COOKE, IV
City Treasurer-Clerk

MARK MUSTIAN
Commissioner

SAM M. McCALL
City Auditor

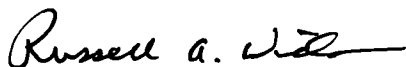
GIL D. ZIFFER
Commissioner

Additionally, the City of Tallahassee submits the test results of the compliance testing required by the compliance plan that was submitted with the Title V renewal application dated May 20, 2012. A summary of the results of compliance testing that is required prior to the permit renewal for units that generally are not required to test annually is listed in the table below. These tests were all conducted while the units were using natural gas as fuel and each visible emissions test was one-hour long.

Unit	Test date	Visible Emissions Limit	VE test result	Heat input (mmBtu/hr)
Unit 1 (EU-001)	May 11, 2012	20%	0%	795
GT1 (EU-002)	July 25, 2012	20%	0%	225.8
GT2 (EU-003)	July 26, 2012	20%	0%	408.6

If you have any questions regarding the information above, please do not hesitate to contact me at (850) 891-8710, or John Powell, Environmental Regulatory Compliance Administrator at (850) 891-8851 or Triveni Singh, Manager of Power Production at (850) 891-5533.

Sincerely,



Russell A. Wider, P.E.
Environmental Engineer

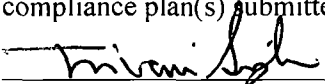
Attachment

cc: Cynthia Barber, COT
Clark Sheehan, COT
Triveni Singh, COT
Phil Bucci, COT
John Powell, COT

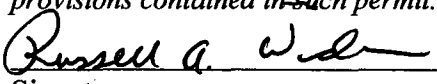
APPLICATION INFORMATION

Application Responsible Official Certification

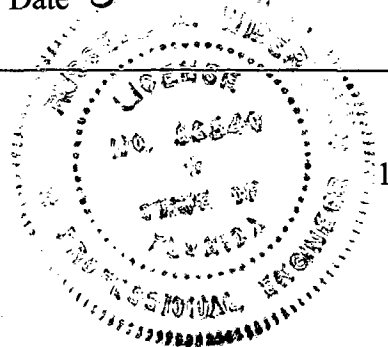
Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:	Triveni Singh, Manager Power Production		
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):	<input type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input checked="" type="checkbox"/> The designated representative at an Acid Rain source, CAIR source, or Hg Budget source.		
3. Application Responsible Official Mailing Address...	Organization/Firm: City of Tallahassee Street Address: 2602 Jackson Bluff Road City: Tallahassee State: FL Zip Code: 32304		
4. Application Responsible Official Telephone Numbers...	Telephone: (850) 891 - 5533 ext. Fax: (850) 891 - 5162		
5. Application Responsible Official E-mail Address:	Triveni.Singh@talgov.com		
6. Application Responsible Official Certification:	<p>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. 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 and all other applicable requirements identified in this application to which the Title V source is subject. 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 the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</p> <p> Signature</p> <p><u>8/22/12</u> Date</p>		

Professional Engineer Certification

1. Professional Engineer Name: Russell A. Wider, Environmental Engineer Registration Number: 66540
2. Professional Engineer Mailing Address... Organization/Firm: City of Tallahassee Street Address: 300 South Adams Street City: Tallahassee State: Florida Zip Code: 32304
3. Professional Engineer Telephone Numbers... Telephone: (850) 891-8710 ext. Fax: (850) 891-8277
4. Professional Engineer E-mail Address:
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(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</i> <i>(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.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, 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 plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, 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.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input checked="" type="checkbox"/>, 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.</i>  Signature (seal) Date <u>Aug. 22, 2012</u>

* Attach any exception to certification statement.





Transmittal via email: NWDAir@dep.state.fl.us

May 17, 2012

Florida Department of Environmental Protection
Northwest District Office
160 Governmental Center
Pensacola, Florida 32502-5794

Re: Visible Emissions Test
Boiler Unit 1 (EU-001)
City of Tallahassee
Arvah Hopkins Generating Station (Facility ID: 0730003)

Dear Mr. Bradburn:

Pursuant to the City of Tallahassee's letter dated April 27th, the City submits the attached visible emissions test for the Arvah Hopkins Generating Station. The visible emissions test was conducted on May 11, 2012, in order to demonstrate compliance with the permitted limit of 20%, six-minute average for opacity. The test was conducted while the unit was firing natural gas as fuel. Two tests were conducted on the test date of May 11th, with the latter test being conducted at a capacity higher than 90% of the maximum heat input. Both test results have been included in this test report submission and demonstrate a visible emissions determination of 0% opacity, based on a 6-minute average.

Please do not hesitate to contact me at (850) 891-8710, or John Powell, Environmental Regulatory Compliance Administrator at (850) 891-8851, if you have any questions or require additional information.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Russell A. Wider'.

Russell Wider, P.E.

Attachment

cc: Cynthia Barber, COT
Clark Sheehan, COT
John Powell, COT
Phil Bucci, COT

VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Check One)
(Method 9) 203A 203B Other:

Company Name
CITY OF TALLAHASSEE
Facility Name
ARVAH B. HOPKINS GENERATING STATION
Street Address
1125 GEDDIE ROAD
City
TALLAHASSEE State
FLORIDA Zip
32304

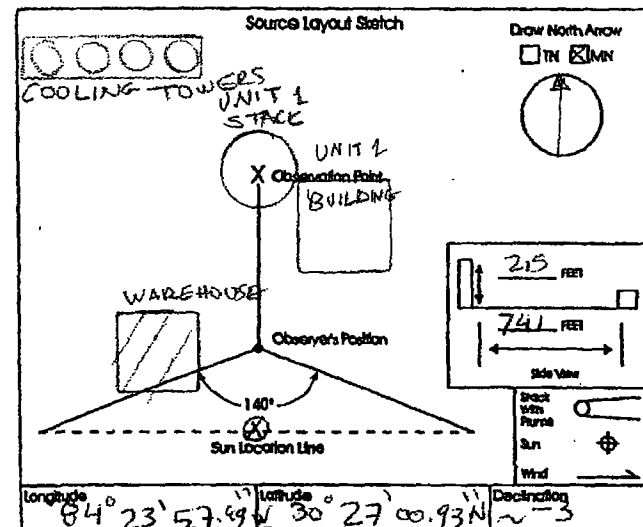
Process
BOILER-GAS FIRED Unit #
1 Operating Mode
795 mmBtu
Control Equipment
NONE Operating Mode
NIA

Describe Emission Point
ROUND CONCRETE STACK WEST OF
UNIT 1 BUILDING WITH 11' DIAMETER
Height of Emiss. Pt.
Start **200'** End **200'** Start **215'** End **215'**
Distance to Emiss. Pt.
Start **741'** End **741'** Start **350°** End **350°**

Vertical Angle to Obs. Pt.
Start **14°** End **14°** Direction to Obs. Pt. (Degrees)
Start **350°** End **350°**
Distance and Direction to Observation Point from Emission Point
Start **1' Above Stack** End **Same**

Describe Emissions
Start **CONING** End **SAME**
Emission Color
Start **CLEAR** End **CLEAR** Attached ☐ Detached ☐ None ☒

Describe Plume Background
Start **SKY** End **SKY**
Background Color
Start **BLUE** End **BLUE** Sky Conditions
Start **CLEAR** End **CLEAR**
Wind Speed
Start **2-4 mph** End **SAME** Wind Direction
Start **NE** End **SAME**
Ambient Temp.
Start **81°** End **83°** Wet Bulb Temp.
67° RH Percent
49%



Additional Information
AIR PERMIT 0730003-013-AV

Form Number **HP0001** Page **1** Or **2**
Continued on VEO Form Number

Observation Date		Time Zone				Start Time	End Time
5-11-2012		EST				12:50 PM	1:50 PM
Min	Sec	0	15	30	45	Comments	
1							
2							
3							
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30							

Observer's Name (Print)
HAZEM TAMIMI
Observer's Signature
Hazem Tamimi Date
5-11-2012
Organization
CITY OF TALLAHASSEE
Certified By
WHITLOW Date
2-22-2012

VISIBLE EMISSION OBSERVATION FORM 1

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

Company Name
 CITY OF TALLAHASSEE
 Facility Name
 ARVAM B. HOPKINS GENERATING STATION
 Street Address
 1125 GEDDIE ROAD
 City
 TALLAHASSEE State
 FLORIDA Zip
 32304

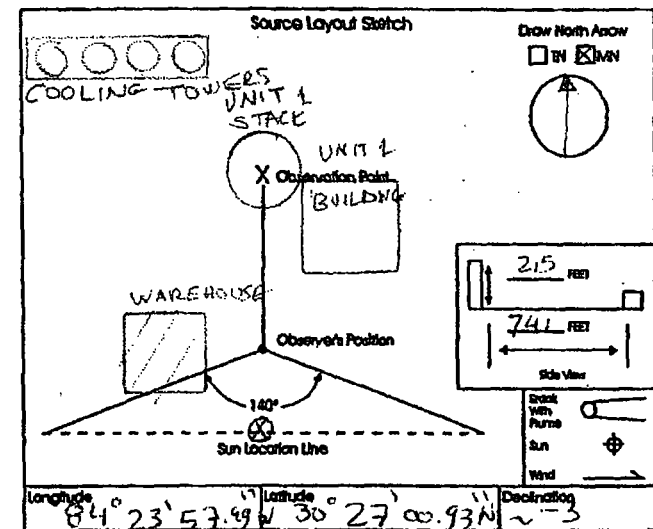
Process
 BOILER-GAS FIRED Unit #
 1 Operating Mode
 795 mmBtu
 Control Equipment
 NONE Operating Mode
 N/A

Describe Emission Point
 ROUND CONCRETE STACK WEST OF
 UNIT 1 BUILDING WITH 11' DIAMETER
 Height of Emiss. Pt.
 Start 200' End 200' Height of Emiss. Pt. Rel. to Observer
 Start 215' End 215'
 Distance to Emiss. Pt.
 Start 741' End 741' Direction to Emiss. Pt. (Degrees)
 Start 350° End 350°

Vertical Angle to Obs. Pt.
 Start 14° End 14° Direction to Obs. Pt. (Degrees)
 Start 350° End 350°
 Distance and Direction to Observation Point from Emission Point
 Start 1' Above Stack End Same

Describe Emissions
 Start CONING End SAME
 Emission Color
 Start CLEAR End CLEAR Water Droplet Plume
 Attached ☐ Detached ☐ None ☒

Describe Plume Background
 Start SKY End SKY
 Background Color
 Start BLUE End BLUE Sky Conditions
 Start CLEAR End CLEAR
 Wind Speed
 Start 2-4 mph End SAME Wind Direction
 Start NE End SAME
 Ambient Temp.
 Start 81° End 83° Wet Bulb Temp.
 Start 67° RH Percent
 Start 49%



Additional Information
 AIR PERMIT 0730003-013-AV

Form Number
 H P 001 Page
 2 of 2
 Continued on VEO Form Number

Observation Date		Time Zone		Start Time	End Time
5-11-2012		EST		12:50 PM	1:50 PM
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6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
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10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
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24	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
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26	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
27	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
28	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
29	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
30	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Observer's Name (Print)
 HAZEM TAMIMI
 Observer's Signature
 HAZEM TAMIMI Date
 5-11-2012
 Organization
 CITY OF TALLAHASSEE
 Certified by
 WHITLOW Date
 2-22-2012

VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)
 Method 9 203A 203B Other

Company Name
 CITY OF TALLAHASSEE
 Facility Name
 ARVAH B. HOPKINS GENERATING STATION
 Street Address
 1125 GEDDIE ROAD
 City
 TALLAHASSEE State
 FLORIDA Zip
 32304

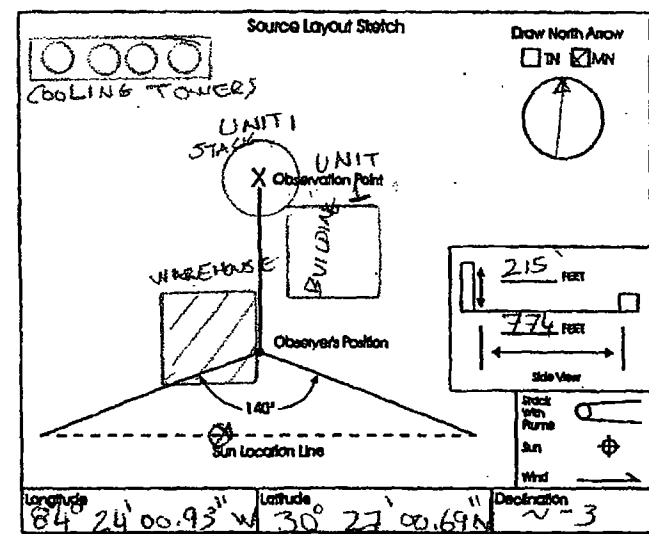
Process
 BOILER - GAS FIRED Unit #
 1 Operating Mode
 851 mmBtu
 Control Equipment
 NONE Operating Mode
 N/A

Describe Emission Point
 ROUND CONCRETE STACK WEST OF
 UNIT 1 BUILDING WITH 11' DIAMETER
 Height of Emis. Pt.
 Start 200' End 200' Height of Emis. Pt. Rel. to Observer
 Start 215' End 215'
 Distance to Emis. Pt.
 Start 774' End 774' Direction to Emis. Pt. (Degrees)
 Start 10° End 10°

Vertical Angle to Obs. Pt.
 Start 14° End 14° Direction to Obs. Pt. (Degrees)
 Start 10° End 10°
 Distance and Direction to Observation Point from Emission Point
 Start 1 ft above stack End Same

Describe Emissions
 Start CONING End SAME
 Emission Color
 Start CLEAR End CLEAR Water Droplet Plume
 Attached ☐ Detached ☐ None ☒

Describe Plume Background
 Start SKY End SKY
 Background Color
 Start BLUE End BLUE Sky Conditions
 Start CLEAR End CLEAR
 Wind Speed
 Start 2-4 mph End SAME Wind Direction
 Start North End SAME
 Ambient Temp.
 Start 87° End 87° Wet Bulb Temp.
 Start 67° End 32%



Additional Information
 AIR PERMIT 073 000 3-013-AV

Form Number
 HP0001 Page
 1 of 2
 Continued on VEO Form Number

Observation Date 5-11-2012		Time Zone EST				Start Time 3:20 PM	End Time 4:20 PM
Min	Sec	0	15	30	45	Comments	
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2	0	0	0	0			
3	0	0	0	0			
4	0	0	0	0			
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9	0	0	0	0			
10	0	0	0	0			
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12	0	0	0	0			
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30	0	0	0	0			

Observer's Name (Print)
 HAZEM TAMIMI
 Observer's Signature
 HAZEM TAMIMI Date
 5-11-2012
 Organization
 CITY OF TALLAHASSEE
 Certified by
 WHITLOW Date
 2-22-2012

VISIBLE EMISSION OBSERVATION FORM 1

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

Company Name
 CITY OF TALLAHASSEE
 Facility Name
 ARVAH B. HOPKINS GENERATING STATION
 Street Address
 1125 GEDDIE ROAD
 City
 TALLAHASSEE State
 FLORIDA Zip
 32304

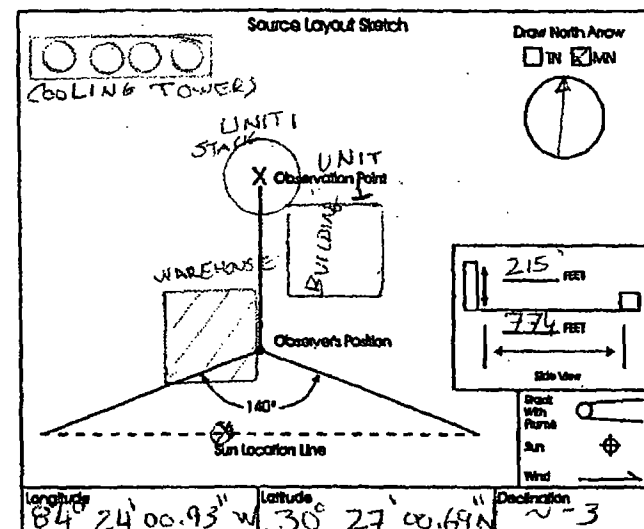
Process
 BOILER - GAS FIRED Unit #
 1 Operating Mode
 851 mmBtu
 Control Equipment
 NONE Operating Mode
 N/A

Describe Emission Point
 ROUND CONCRETE STACK WEST OF
 UNIT 1 BUILDING WITH 11' DIAMETER
 Height of Emis. Pt.
 Start 200' End 200' Height of Emis. Pt. Rel. to Observer
 Start 215' End 215'
 Distance to Emis. Pt.
 Start 774' End 774' Direction to Emis. Pt. (Degrees)
 Start 10° End 10°

Vertical Angle to Obs. Pt.
 Start 14° End 14° Direction to Obs. Pt. (Degrees)
 Start 10° End 10°
 Distance and Direction to Observation Point from Emission Point
 Start 1 ft above stack End Same

Describe Emissions
 Start CONING End SAME
 Emission Color
 Start CLEAR End CLEAR Water Droplet Plume
 Attached ☐ Detached ☐ None ☒

Describe Plume Background
 Start SKY End SKY
 Background Color
 Start BLUE End BLUE Sky Conditions
 Start CLEAR End CLEAR
 Wind Speed
 Start 2-4 mph End SAME Wind Direction
 Start North End SAME
 Ambient Temp.
 Start 87° End 87° Wet Bulb Temp.
 Start 67° End 32%



Additional Information
 AIR PERMIT 073 000 3-013-AV

Form Number
 HPO001 Page
 2 of 2
 Continued on VEO Form Number

Observation Date		Time Zone		Start Time	End Time
5-11-2012		EST		3:20 PM	4:20 PM
Sec Min	0	15	30	45	Comments
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Observer's Name (Print)
 HAZEM TAMIMI
 Observer's Signature
 Hazem Tamimi Date
 5-11-2012
 Organization
 CITY OF TALLAHASSEE
 Certified By
 WHITLOW Date
 2-22-2012



Whitlow Enterprises, LLC

www.smokeschool.net

Certifies that

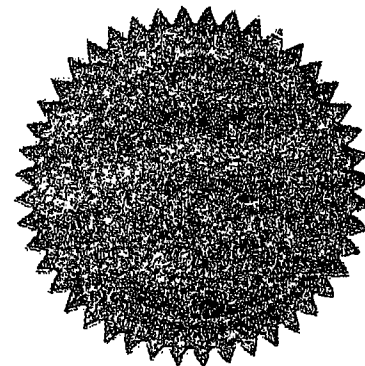
Hazem Tamimi of City of Tallahassee

**Has passed the certification test required by EPA Method 9
40 CFR 60 Appendix A and is qualified as a visible emissions evaluator.**

Certification Date: 2/22/2012 Location: Gainesville, FL

George Whitlow

President



GFL022212-16



Submitted via email: NWDair@dep.state.fl.us

August 15, 2012

Rick Bradburn
Northwest District Office
Florida Department of Environmental Protection
160 Governmental Center
Pensacola, Florida 32502-5794

Re: 2012 Annual Compliance Tests
Units CT1 & CT2 (EUs – 002 & 003)
Visible Emissions Test
Arvah B. Hopkins Generating Station - Facility ID No. 0730003

Dear Mr. Bradburn:

Pursuant to Title V Air Operation Permit No. 0730003-013-AV, the City of Tallahassee (City) submits the attached annual air compliance test report for visible emissions (VE) for Combustion Turbines CT1 and CT2 (EUs –002 & -003) at the Arvah B. Hopkins Generating Station. The tests were performed during the week of July 25, 2012 while the units were firing natural gas.

The test results indicate that the six-minute average for opacity as follows:

Combustion Unit	Permit Limit VE (%)	VE 6 minute average	Heat Input (mm Btu/hr)
CT1 (EU-002)	20	0	225.8
CT2 (EU-003)	20	0	408.6

Attached are the field data sheets from the visible emissions testing that were conducted in accordance with Reference Method 9. These tests have been done to demonstrate compliance with the applicable emissions limiting standard prior to obtaining a renewed operation permit.

Please do not hesitate to contact me at (850) 891-8710, if you have any questions or require additional information.

Sincerely,

Russell Wider, P.E.
Environmental Engineer

Attachments

cc: Cynthia Barber, COT
Triveni Singh, COT
Phil Bucci, COT
John Powell, COT
Clark Sheehan, COT

CITY HALL
300 South Adams Street
Tallahassee, FL 32301-1731
850-891-0000
TDD: 711 • Talgov.com

JOHN R. MARKS, III
Mayor

ANITA F. THOMPSON
City Manager

ANDREW GILLUM
Commissioner

JAMES R. ENGLISH
City Attorney

NANCY MILLER
Commissioner

GARY HERNDON
City Treasurer-Clerk

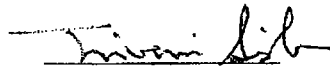
MARK MUSTIAN
Commissioner

SAM M. McCALL
City Auditor

GIL D. ZIFFER
Commissioner

Responsible Official Certification

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

A handwritten signature in black ink, appearing to read "Triveni Singh", is written over a horizontal line.

Triveni Singh
Responsible Official



VISIBLE EMISSIONS EVALUATOR

Russell Wider

This is to certify that the above named observer has met the specifications of Federal Reference Method 9 and is 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, Inc. of Raleigh, N.C.

This certificate is valid for six months from date of issue.

404704

Certificate Number

WID360837

Student ID Number

5/16/2012

Date of Certification

Pensacola, FL

Location

11/15/2012

Certification Expiration Date

TMPF11

Last Lecture

Marty Hughes
Director of Training

EPA VISIBLE EMISSION OBSERVATION FORM 1

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

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

Process Combustion Turbine Unit # CT1 Operating Mode 225.8 m Btu
 Control Equipment None Operating Mode _____

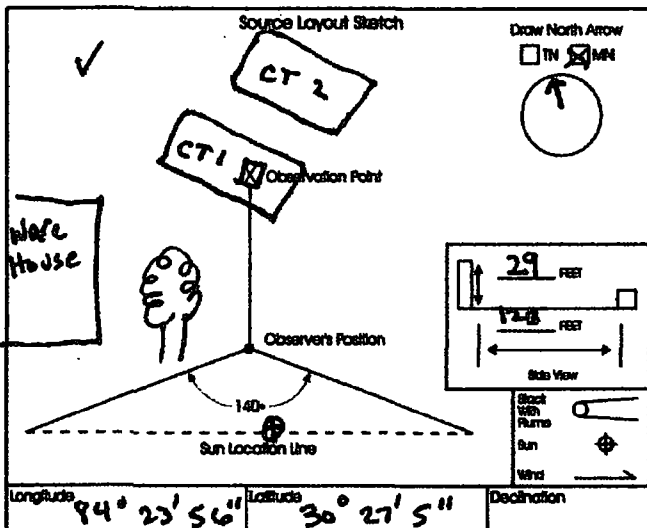
Describe Emission Point
Rectangular stack nearest to warehouse

Height of Emiss. Pt. Start 29 ft End 29 ft Height of Emiss. Pt. Rel. to Observer Start 29 ft End SAME
 Distance to Emiss. Pt. Start 123 ft End _____ Direction to Emiss. Pt. (Degrees) Start 22° End 22°

Vertical Angle to Obs. Pt. Start 12° End 12° Direction to Obs. Pt. (Degrees) Start 22° End 22°
 Distance and Direction to Observation Point from Emission Point Start 1 M above stack End SAME

Describe Emissions
 Start Clear End SAME
 Emission Color Start Clear End SAME Water Droplet Plume Attached ☐ Detached ☐ None ☒

Describe Plume Background
 Start _____ End _____ Sky Conditions Start Blue/gray End SAME Start Scattered End Scattered
 Wind Speed Start 2 to 3 End SAME Wind Direction Start NW End SAME
 Ambient Temp Start 95°F End 100°F Wet Bulb Temp 79°F RH Percent 48%



Additional Information

Form Number H C I O 1 Page 1 of 2
 Continued on VEO Form Number H C I O 2

Observation Date 7/25/12 Time Zone EDST Start Time 1:20 pm End Time 2:20 pm

Sec Min	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
24	0	0	0	0	
25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print) Russell W. PEA
 Observer's Signature Russell A. Widen Date 7/25/12
 Organization City of Tallahassee
 Certified By ETA Date 5/16/12

EPA VISIBLE EMISSION OBSERVATION FORM 1

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

Company Name: **City of Tallahassee**
 Facility Name: **Arvan Hopkins Generating Station**
 Street Address: **1125 Geddie Road**
 City: **Tallahassee** State: **FL** Zip: **32304**

Process: **Combustion Turbine HCL** Unit #: _____ Operating Mode: _____
 Control Equipment: **None** Operating Mode: **N/A**

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 _____
 Start _____ End _____ 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 _____ Start _____ End _____

Source Layout Sketch

Draw North Arrow
☐ TN ☐ MN

Observer's Position

Observation Point

Sun Location Line

FEET

FEET

Side View

Stack with Plume

Sun

Wind

Longitude _____ Latitude _____ Declination _____

Additional Information

Form Number: **H C I 0 2** Page: **2** of **2**
 Continued on VEO Form Number: **H C I 0 2**

Observation Date: **7/25/12** Time Zone: **EST** Start Time: **11:20 PM** End Time: **2:20 PM**

Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
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25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print): **Russell W. Winder**
 Observer's Signature: *Russell W. Winder* Date: **7/25/12**
 Organization: **City of Tallahassee**
 Certified By: **ETA** Date: **5/10/12**

EPA VISIBLE EMISSION OBSERVATION FORM 1

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

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

Process Combustion Turbine Unit # HCL Operating Mode 408.6 mmbtu
 Control Equipment None Operating Mode N/A

Describe Emission Point
Gray rectangular stack second most from warehouse
 Height of Emiss. Pt. Start 30 ft End SAME Height of Emiss. Pt. Rel. to Observer Start 30 ft End SAME
 Distance to Emiss. Pt. Start 195 ft End SAME Direction to Emiss. Pt. (Degrees) Start 32° End SAME

Vertical Angle to Obs. Pt. Start 14° End SAME Direction to Obs. Pt. (Degrees) Start 32° End SAME
 Distance and Direction to Observation Point from Emission Point
 Start Directly above ~3ft End SAME

Describe Emissions
 Start Clear End SAME
 Emission Color Start Clear End SAME Attached ☐ Detached ☐ None ☒

Describe Plume Background
 Start Clouds End SAME
 Background Color Start Gray End SAME Sky Conditions Start Overcast End SAME
 Wind Speed Start 1 to 2 End SAME Wind Direction Start SE End SAME
 Ambient Temp. Start 87°F End 90°F Wet Bulb Temp. Start 81°F End 78%

Source Layout Sketch

Draw North Arrow
☐ TN ☒ IMN

Longitude 84° 23' 55" Latitude 30° 27' 54"N Declination _____

Additional Information

Form Number HCL201 Page 1 of 2
 Continued on VEO Form Number HCL202

Observation Date	Time Zone				Start Time	End Time
7/26/12	EDST				1:43 PM	2:43 PM
Sec Min	0	15	30	45	Comments	
1	0	0	0	0		
2	0	0	0	0		
3	0	0	0	0		
4	0	0	0	0		
5	0	0	0	0		
6	0	0	0	0		
7	0	0	0	0		
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26	0	0	0	0		
27	0	0	0	0		
28	0	0	0	0		
29	0	0	0	0		
30	0	0	0	0		

Observer's Name (Print) Russell Wider
 Observer's Signature Russell Wider Date 7/26/12
 Organization City of Tallahassee
 Certified By ETA Date 5/16/12

EPA VISIBLE EMISSION OBSERVATION FORM 1

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

Company Name City of Tallahassee
 Facility Name Hopkins Generating Station
 Street Address 1125 Gaddie Road
 City Tallahassee State FL Zip 32304

Process Combustion Turbine Unit # 1C2 Operating Mode to 8.6 mbtu
 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 _____
 Start _____ End _____ 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 _____ Start _____ End _____

Source Layout Sketch

Draw North Arrow
☐ TN ☐ MN

Observer's Position

Observation Point

Sun Location Line

140°

FEET

FEET

Side View

Back View

Sun

Wind

Longitude _____ Latitude _____ Elevation _____

Additional Information

Form Number H C 2 0 2 Page 2 of 2
 Continued on VEO Form Number _____

Observation Date		Time Zone		Start Time		End Time	
7/26/12		EDST		1:43pm		2:43pm	
Sec	Min	0	15	30	45	Comments	
1	0	0	0	0			
2	0	0	0	0			
3	0	0	0	0			
4	0	0	0	0			
5	0	0	0	0			
6	0	0	0	0			
7	0	0	0	0			
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26	0	0	0	0			
27	0	0	0	0			
28	0	0	0	0			
29	0	0	0	0			
30	0	0	0	0			

Observer's Name (Print) Russell Wiler
 Observer's Signature Russell A. Wiler Date 7/26/12
 Organization City of Tallahassee
 Certified By EPA Date 5/16/12