HARDEE POWER STATION

TITLE V OPERATION PERMIT RENEWAL APPLICATION

Prepared for:



HARDEE POWER PARTNERS LIMITED Bowling Green, Florida

Prepared by:



ECT No. 130945-0100

May 2014

HARDEE POWER STATION TITLE V OPERATION PERMIT RENEWAL APPLICATION	
Prepared for: HARDEE POWER PARTNERS LIMITED Bowling Green, Florida	
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INTRODUCTION

The Hardee Power Partners, Limited (HPP), Hardee Power Station (HPS) is located at 6695 North County Road 663 in Bowling Green, Hardee County, Florida. HPS is a nominal 370-megawatt (MW) electrical generation facility comprised of two dual-fuel combined cycle combustion turbine (CT) and heat recovery steam generator (HRSG) units (Emissions Units [EUs] 001 and 002) and two dual-fuel simple cycle CTs (EUs 003 and 005), water treatment facilities, ancillary support equipment, as well as a variety of insignificant and unregulated emissions units and activities.

The combined cycle CT/HRSG units (CT-1A and CT-1B) are General Electric (GE) 7EA CTs fired with natural gas and No. 2 distillate fuel oil. Each CT has a nominal generation capacity of 75 MW. Steam produced by the HRSGs is routed to a common steam turbine generator with a nominal generation capacity of 70 MW. Accordingly, the combined cycle CT/HRSG units have a total nominal generation capacity of 220 MW. The combined cycle unit HRSGs are each equipped with bypass stacks to allow CT-1A and CT-1B to operate in simple cycle mode. The simple cycle CTs (CT-2A and CT-2B) are also GE 7EA units that are fired with natural gas and No. 2 distillate fuel oil. Each simple cycle CT has a nominal generation capacity of 75 MW.

The HPS CTs began commercial operation after 1977 and therefore are subject to New Source Performance Standard (NSPS) Subpart GG, Standards of Performance for Stationary Gas Turbines, which applies to gas turbines constructed after October 3, 1977. The HPS CTs were also subject to prevention of significant deterioration (PSD) review, including best available control technology (BACT). CT-1A, CT-1B, and CT-2A are affected emissions units under the Clean Air Interstate Rule (CAIR). CT-2B is an affected emissions unit under both the Acid Rain Program (ARP) and CAIR.

Operation of HPS is currently authorized by Florida Department of Environmental Protection (FDEP) Title V Air Operation Permit No. 0490015-016-AV, issued with an effective date of November 21, 2012, and an expiration date of January 1, 2015. FDEP's Title V regulations are codified in Chapter 62-213, Florida Administrative Code (F.A.C.), Operation Permits for Major Sources of Air Pollution. With respect to Title V air operation permit renewal deadlines, Rule 62-213.420(1)(a)2., F.A.C., requires the permittee apply for a permit renewal at least 225 days prior to permit expiration for permits that expire on or after June 1, 2009. For HPS, which has a Title V air operation permit expiration permit expiration permit expiration permit to submit a Title V air operation permit renewal application no later than May 20, 2014.

This application package, consisting of FDEP's Application for Air Permit – Long Form, effective March 11, 2010, and all required supplemental facility and emissions unit information, constitutes HPP's Title V permit renewal application for HPS and is submitted to satisfy the requirements of Chapter 62-213.400, F.A.C. The following attachments are included as referenced in the permit application:

- Attachment A—Facility Location Map.
- Attachment B—Facility Plot Plan.
- Attachment C—Process Flow Diagrams.
- Attachment D—Precautions to Prevent Emissions of Unconfined Particulate Matter.
- Attachment E—List of Insignificant Activities.
- Attachment F—Identification of Applicable Requirements.
- Attachment G—Compliance Report and Related Correspondence.
- Attachment H—Requested Changes to Current Title V Air Operation Permit.
- Attachment I—Acid Rain Part.
- Attachment J—CAIR Part.
- Attachment K—Fuel Specifications.
- Attachment L—Procedures for Startup and Shutdown.
- Attachment M—Compliance Assurance Monitoring.
- Attachment N—Alternate Methods of Operation.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR RESOURCE MANAGEMENT

APPLICATION FOR AIR PERMIT – LONG FORM



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1.	Facility Owner/Company Name: Hardee P	ower Partners, Lt	d.	
2.	Site Name: Hardee Power Station			
3.	Facility Identification Number: 0490015			
4.	Facility Location Street Address or Other Locator: 6695 North County Road 663			
	City: Bowling Green County: I	lardee	Zip Code: 33834-6817	
5.	Relocatable Facility?YesNo	6. Existing Title Xes	V Permitted Facility?	

Application Contact

1.	Application Contact Name: Ralph E. Randall, Regional Plant Director			
2.	Application Contact Mailing Address Organization/Firm: Hardee Power Partners, Ltd.			
	Street Address: 6695 North County Road 663			
	City: Bowling Green State: Florida Zip Code: 33834-6817			
3.	Application Contact Telephone Numbers			
	Telephone: (863) 375 - 3266 ext. Fax: (863) 375 - 2092			
4.	Application Contact E-mail Address: rrandall@invenergyllc.com			
An	Application Processing Information (DEP Use)			

1. Date of Receipt of Application:3. PSD Number (if applicable):2. Project Number(s):4. Siting Number (if applicable):

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)
Air Construction Permit
Air construction permit.
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.
Air Operation Permit
Initial Title V air operation permit.
Title V air operation permit revision.
Title V air operation permit renewal.
Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.
Air Construction Permit and Revised/Renewal Title V Air Operation Permit
(Concurrent Processing)
\square Air construction permit and Title V permit revision, incorporating the proposed project.
\times Air construction permit and Title V permit renewal, incorporating the proposed project.
Note: By checking one of the above two boxes, you, the applicant, are requesting
also check the following box:
\boxtimes I hereby request that the department waive the processing time requirements of
the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

Operation of the Hardee Power Partners, Ltd. (HPP) Hardee Power Station is currently authorized by Final Title V Operation Permit No. 0490015-016-AV. This permit was issued with an effective date of November 21, 2012, and an expiration date of January 1, 2015.

In accordance with Rule 62-213.420(1)(a)2., Florida Administrative Code (F.A.C.), an application for a Title V permit renewal must be submitted at least 225 days prior to permit expiration for permits that expire on or after June 1, 2009. For the Hardee Power Station, this regulatory deadline requires the submittal of a Title V permit renewal application no later than May 20, 2014. This application and supporting documents constitutes HPP's request for renewal of Hardee Power Station Final Title V Operation Permit Revision No. 0490015-016-AV.

Attachment H contains requested changes to current Title V permit conditions. If FDEP determines that these changes also require a revision to an underlying air construction permit, HPP requests that the air construction permit revisions be processed concurrently with the Title V renewal application.

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
001	Combustion Turbine (CT) 1A with unfired heat recovery steam generator (HRSG)	N/A	N/A
002	CT-1B with unfired heat recovery steam generator	N/A	N/A
003	CT-2A	N/A	N/A
004	One 4.4-million-galon No. 2 fuel oil storage tank	N/A	N/A
005	CT-2B	N/A	N/A

Application Processing Fee

Check one: Attached - Amount: \$_____

Not Applicable

Note: The Hardee Power Station has been issued Final Title V Operation Permit No. 0490015-016-AV. An application processing fee is not required pursuant to Rule 62-213.205(4), F.A.C.

Owner/Authorized Representative Statement

Not applicable

Complete if applying for an air construction permit or an initial FESOP.

1.	Owner/Authorized Representative Name :			
2.	Owner/Authorized Representative Mailing Address			
	Organization/Firm:			
	Street Address:			
	City: State: Zip Code:			
3.	Owner/Authorized Representative Telephone Numbers			
	Telephone: () - ext. Fax: () -			
4.	Owner/Authorized Representative E-mail Address:			
5.	Owner/Authorized Representative Statement:			
	I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.			
	Signature Date			

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: Ralph F. Randall, Regional Plant Director			
2.	Application 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 or CAIR source.			
3.	Application Responsible Official Mailing Address Organization/Firm: Hardee Power Partners, Ltd.			
	Street Address: 6695 North County Road 663			
	City: Bowling Green State: Florida Zip Code: 33834-6817			
4.	Application Responsible Official Telephone NumbersTelephone:(863) 375 - 3266ext.Fax:(863) 375 - 2092			
5.	Application Responsible Official E-mail Address: rrandall@invenergyllc.com			
6.	Application Responsible Official Certification:			
	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.			

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Professional Engineer Certification

1.	Professional Engineer Name: William F. Karl			
	Registration Number: 67498			
2.	Professional Engineer Mailing Address			
	Organization/Firm: Environmental Consulting & Technology, Inc.			
	Street Address: 3701 Northwest 98 th Street			
	City: Gainesville State: Florida Zip Code: 32606-5004			
3.	Professional Engineer Telephone Numbers			
	Telephone: (352) 332 - 0444 ext. 11313 Fax: (352) 332 - 6722			
4.	Professional Engineer E-mail Address: wkarl@ectinc.com			
5.	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.			
	(3) If the purpose of this application is to obtain a Title V air operation permit (check here \square , 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.

(4) If the purpose of this application is to obtain an air construction permit (check here \Box , 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 \Box , 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.

(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 , 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.

5108. Signature U.C. C7466 (seal)

<u>5/14/14</u> Date

* Attach any exception to certification statement.

DEP Form No. 62-210.900(1) – Form Effective: 03/11/2010

CO.GELS!

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1.	I. Facility UTM Coordinates Zone 17 East (km) 404.8		2. Facility Latitude/Longitude Latitude (DD/MM/SS) Longitude (DD/MM/SS)		
3.	Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	 Facility SIC(s): 4911 	
7.	7. Facility Comment :				

Facility Contact

1. Facility Contact Name:
Ralph E. Randall, Regional Plant Director
2. Facility Contact Mailing Address
Organization/Firm: Hardee Power Partners, Ltd.
Street Address: 6695 North County Road 663
City: Bowling Green State: Florida Zip Code: 33834-6817
3. Facility Contact Telephone Numbers
Telephone: (863) 375 - 3266 ext. Fax: (863) 375 - 2092
4. Facility Contact E-mail Address: rrandall@invenergyllc.com
Facility Primary Responsible Official Not applicable
Complete if an "application responsible official" is identified in Section I that is not the
facility "primary responsible official."
1 Eacility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address
Organization/Firm:
Street Address:
City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers
Telephone: () – ext. Fax: () –
4. Facility Primary Responsible Official E-mail Address:

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply following completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1. Small Business Stationary Source Unknown
2. Synthetic Non-Title V Source
3. X Title V Source
4. X Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)
5. Synthetic Minor Source of Air Pollutants, Other than HAPs
6. X Major Source of Hazardous Air Pollutants (HAPs)
7. Synthetic Minor Source of HAPs
8. One or More Emissions Units Subject to NSPS (40 CFR Part 60)
9. One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)
10. One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)
11. Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))
CT-1A, CT-1B, CT-2A, and CT-2B (EUs 001, 002, 003, and 005) are subject to New Source Performance Standards (NSPS) Subpart GG, Standards of Performance for Stationary Gas Turbines.

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
SO ₂	Α	Ν
NO _x	Α	Ν
СО	Α	Ν
VOC	Α	Ν
PM ₁₀	Α	Ν
H095 (formaldehyde)	А	Ν
H106 (hydrochloric acid)	А	Ν
H107 (hydrofluoric acid)	Α	Ν
H114 (manganese compounds)	Α	Ν
HAPs	Α	Ν

FACILITY INFORMATION

Facility-Wide	or Multi-Unit Ei	nissions Caps	Not applic	able	
1. Pollutant Subject to Emissions	2. Facility- Wide Cap [Y or N]?	3. Emissions Unit ID's Under Cap	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
Сар	(all units)	(if not all units)			
7 Facility-W	ide or Multi-Unit	Emissions Can Con	ment:		
7. Tacinty-w		Linissions Cap Con	intent.		
L					

B. EMISSIONS CAPS

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	 Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attachment B</u> Previously Submitted, Date:
2.	 Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☑ Attached, Document ID:<u>Attachment C</u> □ Previously Submitted, Date:
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☑ Attached, Document ID: Attachment D □ Previously Submitted, Date:
Ad	Iditional Requirements for Air Construction Permit Applications Not applicable
1.	Area Map Showing Facility Location: Attached, Document ID: Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): Attached, Document ID:
3.	Rule Applicability Analysis: Attached, Document ID:
4.	List of Exempt Emissions Units: Attached, Document ID: Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification: Attached, Document ID: Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): Attached, Document ID: Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): Attached, Document ID: Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): Attached, Document ID: Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): Attached, Document ID: Not Applicable
10	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): Attached, Document ID: Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additior	nal Requirements for FESOP Applica	tions Not applicable
1. List o	of Exempt Emissions Units: Attached, Document ID:	Not Applicable (no exempt units at facility)
Addition	al Requirements for Title V Air Ope	ration Permit Applications
1. List $ \square A $	of Insignificant Activities: (Required for Attached, Document ID: <u>Attachment E</u>	initial/renewal applications only) Not Applicable (revision application)
2. Ident revisi □ A	ification of Applicable Requirements: on applications if this information would b Attached, Document ID: <u>Attachment F</u> Not Applicable (revision application wit	(Required for initial/renewal applications, and for e changed as a result of the revision being sought) h no change in applicable requirements)
3. Com	pliance Report and Plan: (Required for a Attached, Document ID: <u>Attachment G</u> A compliance plan must be submitted for plicable requirements at the time of applica ssing. The department must be notified of cation processing.	Il initial/revision/renewal applications) each emissions unit that is not in compliance with tion and/or at any time during application any changes in compliance status during
4. List of initial □ A □ B □ N	of Equipment/Activities Regulated unde //renewal applications only) Attached, Document ID: Equipment/Activities Onsite but Not Re Not Applicable	er Title VI: (If applicable, required for quired to be Individually Listed
5. Verifiinitia	fication of Risk Management Plan Subn //renewal applications only) Attached, Document ID:	nission to EPA: (If applicable, required for Not Applicable
$\begin{array}{c c} 6. & \operatorname{Requ}\\ & \boxtimes & A \end{array}$	ested Changes to Current Title V Air O Attached, Document ID: <u>Attachment H</u>	peration Permit:

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain or CAIR Program

1.	Acid Rain Program Forms:
	Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):
	Attached, Document ID: <u>Attachment I</u> Previously Submitted, Date:
	Not Applicable (not an Acid Rain source)
	Phase II NO _X Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
	Attached, Document ID: Previously Submitted, Date:
	Not Applicable
	New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):
	Attached, Document ID: Previously Submitted, Date:
	Not Applicable
2.	CAIR Part (DEP Form No. 62-210.900(1)(b)):
	Attached, Document ID: <u>Attachment J</u> Previously Submitted, Date:
	Not Applicable (not a CAIR source)

Additional Requirements Comment

Section [1] of [5]

III. EMISSIONS UNIT INFORMATION

A. GENERAL EMISSIONS UNIT INFORMATION

<u>Title V Air Operation Permit Emissions Unit Classification</u>

1.	Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)				
	 The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit. The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit. 				
En	nissions Unit Descr	ription and Status			
1.	Type of Emissions	Unit Addressed in this	Section: (Check one)		
	This Emissions single process pollutants and	s Unit Information Secti or production unit, or ac which has at least one d	on addresses, as a singl ctivity, which produces efinable emission point	e emissions unit, a one or more air (stack or vent).	
	This Emissions of process or p point (stack or	s Unit Information Secti roduction units and activ vent) but may also prod	on addresses, as a singl vities which has at least uce fugitive emissions.	e emissions unit, a group one definable emission	
	This Emissions more process of	s Unit Information Section production units and a	on addresses, as a singl activities which produce	e emissions unit, one or fugitive emissions only.	
2.	Description of Em	issions Unit Addressed	in this Section:		
	CT-1A with unfir	ed HRSG			
3.	Emissions Unit Ide	entification Number: 00)1		
4.	Emissions Unit Status Code:	5. Commence Construction	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	
	Α	N/A	N/A	49	
8.	Federal Program A	pplicability: (Check all	l that apply)		
	Acid Rain Unit	t			
	🔀 CAIR Unit				
9.	Package Unit:				
10	Manufacturer: Ge	neral Electric (GE)	Model Number:	PG-7111EA	
10	Generator Namepl	ate Rating: 96 MW			
	. Emissions Unit Co	omment:			
	CT-1A shares a contract of the	ommon steam turbine on capacity of 70 mega	generator (STG) with watts (MW).	CT-1B. The STG has a	

Section [1] of [5]

Emissions Unit Control Equipment/Method: Control <u>1</u> of <u>1</u>

1. Control Equipment/Method Description:

Water injection for NO_x control

2. Control Device or Method Code: 028

Emissions Unit Control Equipment/Method: Control _____ of _____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control _____ of _____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control _____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Section [1] of [5]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1.	Maximum Process or Throughput Rate:	
2.	Maximum Production Rate:	
3.	Maximum Heat Input Rate: 1,312.3 million Btu/hr, LHV	7
4.	Maximum Incineration Rate: pounds/hr	
	tons/day	
5.	Requested Maximum Operating Schedule:	
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6.	Operating Capacity/Schedule Comment:	
	Maximum heat input rate shown in Field 3 is for No. 2 temperature and baseload.	2 fuel oil at 32°F ambient
	Maximum heat input rate shown in Field 3 is for No. 2 temperature and baseload. Maximum heat input rate when firing natural gas is 1 ambient temperature and baseload.	2 fuel oil at 32°F ambient ,268.4 MMBtu/hr, LHV at 32°F
	Maximum heat input rate shown in Field 3 is for No. 2 temperature and baseload. Maximum heat input rate when firing natural gas is 1 ambient temperature and baseload.	2 fuel oil at 32°F ambient ,268.4 MMBtu/hr, LHV at 32°F
	Maximum heat input rate shown in Field 3 is for No. 2 temperature and baseload. Maximum heat input rate when firing natural gas is 1 ambient temperature and baseload.	2 fuel oil at 32°F ambient ,268.4 MMBtu/hr, LHV at 32°F
	Maximum heat input rate shown in Field 3 is for No. 2 temperature and baseload. Maximum heat input rate when firing natural gas is 1 ambient temperature and baseload.	2 fuel oil at 32°F ambient ,268.4 MMBtu/hr, LHV at 32°F
	Maximum heat input rate shown in Field 3 is for No. 2 temperature and baseload. Maximum heat input rate when firing natural gas is 1 ambient temperature and baseload.	2 fuel oil at 32°F ambient ,268.4 MMBtu/hr, LHV at 32°F
	Maximum heat input rate shown in Field 3 is for No. 2 temperature and baseload. Maximum heat input rate when firing natural gas is 1 ambient temperature and baseload.	2 fuel oil at 32°F ambient ,268.4 MMBtu/hr, LHV at 32°F

Section [1] of [5]

C. EMISSION POINT (STACK/VENT) INFORMATION (Optional for unregulated emissions units.)

Emission Point Description and Type

1.	Identification of Point on	Plot Plan or	2. Emission Point	Type Code:	
	Flow Diagram: CT-1A			1	
				1	
3.	Descriptions of Emission	Points Comprising	g this Emissions Unit	for VE Tracking:	
	N/A				
4.	ID Numbers or Descriptio	ns of Emission U	nits with this Emission	n Point in Common:	
	N/A				
	N/A				
	N/A				
5	N/A Discharge Type Code:	6 Stack Height	·	7 Exit Diameter:	
5.	N/A Discharge Type Code:	6. Stack Height	t: 0 faat	7. Exit Diameter:	
5.	N/A Discharge Type Code: V	6. Stack Height 9	t: 0 feet	7. Exit Diameter: 14.5 feet	
5. 8.	N/A Discharge Type Code: V Exit Temperature:	 6. Stack Height 9 9. Actual Volution 	t: 0 feet metric Flow Rate:	 7. Exit Diameter: 14.5 feet 10. Water Vapor: 	
5.	N/A Discharge Type Code: V Exit Temperature: 250°F	 6. Stack Height 9 9. Actual Volut 751, 	t: 0 feet metric Flow Rate: 000 acfm	 7. Exit Diameter: 14.5 feet 10. Water Vapor: N/A % 	
5. 8.	N/A Discharge Type Code: V Exit Temperature: 250°F Maximum Dry Standard F	 6. Stack Height 9 9. Actual Volut 751, 	t: 0 feet metric Flow Rate: 000 acfm 12 Nonstack Emiss	 7. Exit Diameter: 14.5 feet 10. Water Vapor: N/A % 	
5. 8. 11	N/A Discharge Type Code: V Exit Temperature: 250°F Maximum Dry Standard F	 6. Stack Height 9 9. Actual Volut 751, Flow Rate: 	t: 0 feet metric Flow Rate: 000 acfm 12. Nonstack Emiss	 7. Exit Diameter: 14.5 feet 10. Water Vapor: N/A % ion Point Height: 	
5. 8. 11	N/A Discharge Type Code: V Exit Temperature: 250°F . Maximum Dry Standard F N/A dscfm	 6. Stack Height 9 9. Actual Volut 751, Flow Rate: 	t: 0 feet metric Flow Rate: 000 acfm 12. Nonstack Emiss: N	 7. Exit Diameter: 14.5 feet 10. Water Vapor: N/A % ion Point Height: N/A feet 	
5. 8. 11	N/A Discharge Type Code: V Exit Temperature: 250°F Maximum Dry Standard F N/A dscfm Emission Point UTM Coo	 6. Stack Height 9 9. Actual Volut 751, Flow Rate: rdinates 	t: 0 feet metric Flow Rate: 000 acfm 12. Nonstack Emiss N 14. Emission Point I	 7. Exit Diameter: 14.5 feet 10. Water Vapor: N/A % ion Point Height: I/A feet Latitude/Longitude 	
5. 8. 11	N/A Discharge Type Code: V Exit Temperature: 250°F Maximum Dry Standard F N/A dscfm Emission Point UTM Coo Zone: East (km):	 6. Stack Height 9 9. Actual Volut 751, Flow Rate: rdinates 	t: 0 feet metric Flow Rate: 000 acfm 12. Nonstack Emiss N 14. Emission Point I Latitude (DD/M	 7. Exit Diameter: 14.5 feet 10. Water Vapor: N/A % ion Point Height: I/A feet Latitude/Longitude M/SS) 	
5. 8. 11	N/A Discharge Type Code: V Exit Temperature: 250°F Maximum Dry Standard F N/A dscfm Emission Point UTM Coo Zone: East (km): North (km)	 6. Stack Height 9 9. Actual Volue 751, Flow Rate: rdinates 	t: 0 feet metric Flow Rate: 000 acfm 12. Nonstack Emiss: N 14. Emission Point I Latitude (DD/M Longitude (DD/	 7. Exit Diameter: 14.5 feet 10. Water Vapor: N/A % ion Point Height: I/A feet Latitude/Longitude M/SS) 	
5. 8. 11	N/A Discharge Type Code: V Exit Temperature: 250°F Maximum Dry Standard F N/A dscfm Emission Point UTM Coo Zone: East (km): North (km)	 6. Stack Height 9. Actual Volut 751, Flow Rate: rdinates 	t: 0 feet metric Flow Rate: 000 acfm 12. Nonstack Emiss: N 14. Emission Point I Latitude (DD/M Longitude (DD/I	 7. Exit Diameter: 14.5 feet 10. Water Vapor: N/A % ion Point Height: N/A feet Latitude/Longitude M/SS) 	
5. 8. 11 13	N/A Discharge Type Code: V Exit Temperature: 250°F Maximum Dry Standard F N/A dscfm Emission Point UTM Coo Zone: East (km): North (km) Emission Point Comment:	 6. Stack Height 9. Actual Volue 751, Flow Rate: rdinates 	t: 0 feet metric Flow Rate: 000 acfm 12. Nonstack Emiss: N 14. Emission Point I Latitude (DD/M Longitude (DD/)	 7. Exit Diameter: 14.5 feet 10. Water Vapor: N/A % ion Point Height: I/A feet Latitude/Longitude M/SS) MM/SS) 	

CT-1A is also equipped with an HRSG bypass stack.

Section [1] of [5]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment <u>1</u> of <u>2</u>

1. Segment Description (Process/Fuel Type):

Internal combustion engines, electric generation, natural gas, turbine

2.	. Source Classification Code (SCC):		3. SCC Units:	
	2-01-002-01		Milli	on cubic feet burned
4.	Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity
	1.34	11,696		Factor: N/A
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:
	N/A	N	/A	950 (LHV)
10	. Segment Comment:			

Fields 4 and 5 maximum hourly and annual rates based on 1,268.4 MMBtu/hr (LHV) at 32°F and 8,760 hours per year (hr/yr).

<u>Segment Description and Rate:</u> Segment <u>2</u> of <u>2</u>

1. Segment Description (Pro	cess/Fuel Type):		
Internal combustion eng	ines, electric gei	neration, distilla	ate oil (No. 2), turbine
2. Source Classification Cod	e (SCC):	3. SCC Units	:
2-01-001-01		Tho	usand gallons burned
4. Maximum Hourly Rate: 10.25	5. Maximum . 89 ,	Annual Rate: 811	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: 0.50	8. Maximum 0 .	% Ash: 01	9. Million Btu per SCC Unit: 128 (LHV)
10. Segment Comment: Fields 4 and 5 maximum at 32°F and 8,760 hr/yr.	hourly and ann	ual rates based	on 1,312.3 MMBtu/hr (LHV)

Section [1] of [5]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO ₂			EL
NO _x	028		EL
СО			EL
VOC			EL
PM/PM ₁₀			EL
H095 (formaldehyde)			NA
H106 (hydrochloric acid)			NS
H107 (hydrofluoric acid)			NS
H113 (manganese compounds)			NS
HAPs			NS

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficie	ency of Control:	
SO ₂	N/A		
3. Potential Emissions:	4. Synth	netically Limited?	
734.4 lb/hour 1,877.7	7 tons/year	es 🛛 No	
5. Range of Estimated Fugitive Emissions (as	s applicable): N/A		
to tons/year			
6. Emission Factor: 734.4 lb/hr (No. 2 fuel oi	l – hourly)	7. Emissions	
1.01 × %S (No. 2 fuel oi	l – annual)	Method Code:	
Reference: Condition A.7, Title V I	Permit No. 0490015-	0, 3	
016-AV, Table 3.1-2a, A	P-42 (No. 2 fuel oil)		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period: N/A	
tons/year N/A	From:	To:	
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period: N/A	
tons/year N/A	\Box 5 years \Box 1	0 years	
10. Calculation of Emissions:			
Hourly rate (No. 2 fuel oil – 0.5-percent s	ulfur):		
$SO_2 = 734.4 lb/hr$			
Annual rate (No. 2 fuel oil – 0.3-percent s	Annual rate (No. 2 fuel oil – 0.3-percent sulfur):		
SO ₂ = (1.01 × 0.3 lb/MMBtu) × (12,39) = 1,877.7 tons per year (tpy)	3,853 MMBtu/yr [HHV]) × (2,000 lb/ton)	
11. Potential, Fugitive, and Actual Emissions C	omment:		

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

<u>Allowable Emissions</u> Allowable Emissions <u>1</u> of <u>2</u>

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Allowable Emissions: N/A
3.	Allowable Emissions and Units: 0.5 weight percent sulfur 0.3 weight percent sulfur (annual average)	4.	Equivalent Allowable Emissions:734.4 lb/hour1,877.7 tons/year
5.	Method of Compliance: Fuel sampling and analysis per applicable A	STI	M methods
6.	Allowable Emissions Comment (Description o Title V Permit No. 0490015-016-AV, Condit	f Op ion	perating Method): A.3 (No. 2 fuel oil)

Allowable Emissions Allowable Emissions 2 of 2

1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: N/A			
3.	Allowable Emissions and Units: N/A	4.	Equivalent Allowable Emissions 35.8 lb/hour 156.8 tons/ye	: ear	
5.	Method of Compliance: Fuel sampling and analysis per applicable ASTM methods				
6.	Allowable Emissions Comment (Description of Operating Method):				

Title V Permit No. 0490015-016-AV, Condition A.7 (natural gas)

Allowable Emissions _____ of _____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	fOp	erating Method):

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:							
3. Potential Emissions:	4. Synthetically Limited?							
383.8 lb/hour 1,681.0	D tons/year 🗍 Yes 🖄 No							
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable): N/A							
6. Emission Factor: 383.8 lb/hr (No. 2 fuel oi Reference: Condition A.6, Title V I 016-AV	I) 7. Emissions Permit No. 0490015- 7. Emissions Method Code: 0							
8.a. Baseline Actual Emissions (if required): tons/year N/A	8.b. Baseline 24-month Period: N/AFrom:To:							
9.a. Projected Actual Emissions (if required): tons/year N/A	9.b. Projected Monitoring Period: N/A 5 years 10 years							
10. Calculation of Emissions:								
Hourly rate (No. 2 fuel oil):								
$NO_x = 383.8 lb/hr$								
Annual rate (No. 2 fuel oil):								
$NO_x = (383.8 \text{ lb/hr}) \times (8,760 \text{ hr/yr/2},00)$	00 lb/ton) = 1,681.0 tpy							
11. Potential, Fugitive, and Actual Emissions C	11. Potential, Fugitive, and Actual Emissions Comment:							

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

<u>Allowable Emissions</u> Allowable Emissions <u>1</u> of <u>2</u>

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Allowable Emissions: N/A		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:		
	42 ppmvd at 15-percent oxygen		215.9 lb/hour 945.6 tons/year		
5.	Method of Compliance:				
	EPA Reference Method 20				
6.	Allowable Emissions Comment (Description o	fOp	perating Method):		
	Title V Permit No. 0490015-016-AV, Condition A.6.a (natural gas)				

<u>Allowable Emissions</u> Allowable Emissions <u>2</u> of <u>2</u>

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Allowable Emissions: N/A	
3.	Allowable Emissions and Units: 65 ppmvd at 15-percent oxygen	4.	Equivalent Allowable Emissions: 383.8 lb/hour 1,681.0 tons/year	
5.	Method of Compliance: EPA Reference Method 20			
6.	 Allowable Emissions Comment (Description of Operating Method): Title V Permit No. 0490015-016-AV, Condition A.6.b (No. 2 fuel oil) 			

Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of	of Operating Method):

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:						
CO		N/A					
3. Potential Emissions:		4. Synthe	etically Limited?				
93.4 lb/hour 409. 1	l tons/year		es 🖄 No				
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable): N	N/A					
6. Emission Factor: 93.4 lb/hr (No. 2 fuel oil))		7. Emissions				
Reference: Condition A.9, Title V I	Permit No. 049	0015-	Method Code:				
016-AV			0				
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period: N/A				
tons/year N/A	From:	Т	0:				
9.a. Projected Actual Emissions (if required):	9.b. Projected	l Monitorir	g Period: N/A				
tons/year N/A	\Box 5 years \Box 10 years						
10. Calculation of Emissions:							
Hourly rate (No. 2 fuel oil):							
CO = 93.4 lb/hr							
Annual rate (No. 2 fuel oil):							
CO = (93.4 lb/hr) × (8,760 hr/yr/2,000	lb/ton) = 409.1	l tpy					
11. Potential, Fugitive, and Actual Emissions C	11. Potential, Fugitive, and Actual Emissions Comment:						

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions <u>1</u> of <u>2</u>

1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: N/A			
3.	Allowable Emissions and Units:	4.	4. Equivalent Allowable Emissions:		
	10 ppmvd		31.3 lb/hour 137.1 tons/ye	ear	
5.	Method of Compliance:				
	EPA Reference Method 10				
6.	Allowable Emissions Comment (Description of Operating Method):				

Title V Permit No. 0490015-016-AV, Condition A.9 (natural gas)

<u>Allowable Emissions</u> Allowable Emissions <u>2</u> of <u>2</u>

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Allowable Emissions: N/A		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:		
	26 ppmvd		93.4 lb/hour 409.1 tons/year		
5.	Method of Compliance:				
	EPA Reference Method 10				
6.	Allowable Emissions Comment (Description of Operating Method):				
	Title V Permit No. 0490015-016-AV, Condition A.9 (No. 2 fuel oil)				

Allowable Emissions Allowable Emissions of

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable En lb/hour	nissions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description o	fOp	perating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:				
VOC	N/A				
3. Potential Emissions:		4. Synth	etically Limited?		
10.3 lb/hour 45.1	tons/year		es 🖄 No		
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable): N	N/A			
6. Emission Factor: 10.3 lb/hr (No. 2 fuel oil))		7. Emissions		
Reference: Condition A.10, Title V	Permit No. 04	90015-	Method Code:		
016-AV			0		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period: N/A		
tons/year N/A	From:	Т	0:		
9.a. Projected Actual Emissions (if required):	9.b. Projected	l Monitorir	ng Period: N/A		
tons/year N/A	🗌 5 yea	ars 🗌 10) years		
10. Calculation of Emissions:					
Hourly rate (No. 2 fuel oil):					
VOC = 10.3 lb/hr					
Annual rate (No. 2 fuel oil):					
VOC = (10.3 lb/hr) × (8,760 hr/yr/2,00	0 lb/ton) = 45.	1 tpy			
11. Potential, Fugitive, and Actual Emissions C	omment:				

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions <u>1</u> of <u>2</u>

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Allowable Emissions: N/A		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:		
	2 ppmvd		3.6 lb/hour 15.8 tons/year		
5.	Method of Compliance:				
	EPA Reference Method 25A				
6.	Allowable Emissions Comment (Description o	fOp	perating Method):		

Title V Permit No. 0490015-016-AV, Condition A.10 (natural gas)

<u>Allowable Emissions</u> Allowable Emissions <u>2</u> of <u>2</u>

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Allowable Emissions: N/A	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:	
	5 ppmvd		10.3 lb/hour 45.1 tons/year	
5.	Method of Compliance:			
	EPA Reference Method 25A			
6.	. Allowable Emissions Comment (Description of Operating Method):			
	Title V Permit No. 0490015-016-AV, Condition A.10 (No. 2 fuel oil)			

Allowable Emissions Allowable Emissions of

1. E	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	Allowable
3. A	Allowable Emissions and Units:	4.	Equivalent Allowable Er lb/hour	nissions: tons/year
5. Method of Compliance:				
6. A	Allowable Emissions Comment (Description o	f Op	perating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:				
PM/PM ₁₀	N/A				
3. Potential Emissions:		4. Synth	etically Limited?		
10 lb/hour 43.8	B tons/year		es 🖄 No		
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable): N	N/A			
6. Emission Factor: 10 lb/hr (No. 2 fuel oil)			7. Emissions		
Reference: Condition A.8, Title V I	Permit No. 049	ermit No. 0490015- Method Code:			
016-AV			0		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period: N/A		
tons/year N/A	From:	Т	0:		
9.a. Projected Actual Emissions (if required):	9.b. Projected	d Monitorir	g Period: N/A		
tons/year N/A	\Box 5 years \Box 10 years				
10. Calculation of Emissions:	<u> </u>		-		
Hourly rate (No. 2 fuel oil):					
$PM/PM_{10} = 10 lb/hr$					
Annual rate (No. 2 fuel oil):					
PM/PM ₁₀ = (10 lb/hr) × (8,760 hr/yr/2	,000 lb/ton) = 4	43.8 tpy			
11. Potential, Fugitive, and Actual Emissions Comment:					

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

<u>Allowable Emissions</u> Allowable Emissions <u>1</u> of <u>2</u>

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date Emissions: N/A	e of Allowable
3.	Allowable Emissions and Units: N/A	4.	Equivalent Allowable 5 lb/hour	e Emissions: 21.9 tons/year
5.	Method of Compliance:	•		

EPA Reference Method 5, 5B, or 17

6. Allowable Emissions Comment (Description of Operating Method):

Title V Permit No. 0490015-016-AV, Condition A.8 (natural gas)

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: N/A	
3. Allowable Emissions and Units: N/A	4. Equivalent Allowable Emissions:10 lb/hour43.8 tons/year	
Method of Compliance: EPA Reference Method 5, 5B, or 17		
5. Allowable Emissions Comment (Description of Operating Method): Title V Permit No. 0490015-016-AV, Condition A 8 (No. 2 fuel oil)		

Allowable Emissions Allowable Emissions of

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:		
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5. Method of Compliance:			
6. Allowable Emissions Comment (Description o	f Operating Method):		

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:			
H095 (formaldehyde)	N/A			
3. Potential Emissions:		4. Synth	etically Limited?	
1.0 lb/hour 4. 4	tons/year		es 🖄 No	
5. Range of Estimated Fugitive Emissions (as	s applicable): N	N/A		
to tons/year				
6. Emission Factor: 0.00071 lb/MMBtu, HH	V (natural gas))	7. Emissions	
Reference: Table 3.1-3, AP-42			Method Code:	
	1		3	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period: N/A	
tons/year N/A	From:	Т	0:	
9.a. Projected Actual Emissions (if required):	9.b. Projected	9.b. Projected Monitoring Period: N/A		
tons/year N/A	\Box 5 years \Box 10 years			
10. Calculation of Emissions:	<u> </u>		-	
Hourly rate (natural gas):				
E) y (1 403 NAN	(D 4/ I)	1011/1	
Formaldenyde = (0.0000/1 lb/WIWIBtu	$(1,402) \times (1,402)$	(Btu/nr) =	1.0 lD/nr	
Annual rate (natural gas):				
Formaldehyde = (1.0 lb/hr) × (8,760 h	r/yr/2,000 lb/to	on) = 4.4 tp	у	
11. Potential, Fugitive, and Actual Emissions Comment:				

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions of	Not applicable
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description o	f Operating Method):

<u>Allowable Emissions</u> Allowable Emissions ____ of ____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
			lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	of Op	perating Method):

Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of	of Operating Method):
(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:			
H106 (hydrochloric acid)	N/A			
3. Potential Emissions:	B. Potential Emissions:		etically Limited?	
2.6 lb/hour 11.0	b tons/year	L Y	es 🖄 No	
5. Range of Estimated Fugitive Emissions (as	s applicable): N	N/A		
6 Emission Eactor: 0.00187 lb/MMBtu HH	V (No. 2 fuel of	i l)	7 Emissions	
(30 mg/L Cl)	(110. 2 fuel of	ш <i>)</i>	Method Code	
Reference: EPA boiler MACT supp	porting data		5	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period: N/A	
tons/year N/A	From:	Т	0:	
9.a. Projected Actual Emissions (if required):	9.b. Projected	l Monitorir	ng Period: N/A	
tons/year N/A	🗌 5 yea	ars 🗌 10) years	
10. Calculation of Emissions:				
Hourly rate (No. 2 fuel oil):	Hourly rate (No. 2 fuel oil):			
Hydrochloric acid – (0.00187 ib/Whyte	otu) ^ (1,415 M	11 v1Dtu/11 1)	- 2.0 10/111	
Annual rate (No. 2 fuel oil):				
Hydrochloric acid = $(2.6 \text{ lb/hr}) \times (8.76)$	50 hr/vr/2,000 l	lb/ton) = 1	1.6 tpv	
	U	,	1.0	
11. Potential, Fugitive, and Actual Emissions Comment:				

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

<u>Al</u>	lowable Emissions of	•	Not applicable
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	fOŗ	perating Method):

<u>Allowable Emissions</u> Allowable Emissions ____ of ____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
			lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	of Op	perating Method):

<u>Allowable Emissions</u> Allowable Emissions ____ of ____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	fOp	perating Method):

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:			
Allo (nydrolluoric acid)	1V/A 4 Synthetically Limited?			
1.3 lb/hour 5.9	1.3 lb/hour 5.9 tons/year			
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year				
6. Emission Factor: 0.000947 lb/MMBtu, HHV (No. 2 fuel oil) (17.5 ppmw F)7. Emission Method CReference: EPA utility HAP study5			7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year N/A	8.b. Baseline From:	24-month	Period: N/A o:	
9.a. Projected Actual Emissions (if required): tons/year N/A	9.b. Projected	l Monitorir ars 🔲 10	ng Period: N/A) years	
10. Calculation of Emissions:				
Hourly rate (No. 2 fuel oil):				
Hydrofluoric acid = (0.000947 lb/MM	Btu) × (1,415 N	MMBtu/hr) = 1.3 lb/hr	
Annual rate (No. 2 fuel oil):				
Hydrofluoric acid = (1.3 lb/hr) × (8,76	0 hr/yr/2,000 l	b/ton) = 5.	9 tpy	
11. Potential, Fugitive, and Actual Emissions Comment:				

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions of	Not applicable
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description o	f Operating Method):

<u>Allowable Emissions</u> Allowable Emissions ____ of ____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
			lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	of Op	perating Method):

Allowable Emissions _____ of _____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	fOp	perating Method):

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: H113 (manganese compounds)	2. Total Percent Efficiency of Control: N/A			
3. Potential Emissions:1.1 lb/hour4.9	tons/year 4.	etically Limited? es 🖾 No		
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year				
6. Emission Factor: 0.00079 lb/MMBtu, HHV (No. 2 fuel oil) Reference: Table 3.1-5, AP-427. Emissions Method Co 3			7. Emissions Method Code: 3	
8.a. Baseline Actual Emissions (if required): tons/year N/A	8.b. Baseline 24 From:	4-month I To	Period: N/A	
9.a. Projected Actual Emissions (if required): tons/year N/A	9.b. Projected N	Monitorin 5 🗌 10	g Period: N/A years	
10. Calculation of Emissions:				
Hourly rate (No. 2 fuel oil):				
Manganese compounds = (0.00079 lb/MMBtu) × (1,415 MMBtu/hr) = 1.1 lb/hr				
Annual rate (No. 2 fuel oil):				
Manganese compounds = (1.1 lb/hr) ×	(8,760 hr/yr/2,00	00 lb/ton) = 4.9 tpy	
11. Potential, Fugitive, and Actual Emissions C	omment:			

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

<u>Al</u>	lowable Emissions of	•	Not applicable
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	fOŗ	perating Method):

<u>Allowable Emissions</u> Allowable Emissions ____ of ____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
			lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	of Op	perating Method):

Allowable Emissions _____ of _____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
			lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	of Op	perating Method):

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:			
HAPS	N/A			
3. Potential Emissions:		4. Synth	etically Limited?	
5.8 lb/hour 25.	s tons/year		es 🖾 No	
5. Range of Estimated Fugitive Emissions (as	s applicable): N	N/A		
6 Emission Factor: 0.0041 lb/MMBtu, HHV	(Composite, N	No. 2 fuel	7 Emissions	
oil)	(composite, i		Method Code:	
Reference: Tables 3.1-4 and -5, AP	-42; EPA boile	r MACT	3, 5	
utility HAP study	,		,	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period: N/A	
tons/year N/A	From:	Т	0:	
9.a. Projected Actual Emissions (if required):	9.b. Projected	d Monitorir	g Period: N/A	
tons/year N/A	☐ 5 yea	ars 🗌 10) years	
10. Calculation of Emissions:				
Hourly rate (No. 2 fuel oil):				
HAPs = (0.0041 lb/MMBtu) × (1,415 N	/IMBtu/hr) = 5	5.8 lb/hr		
Annual rate (No. 2 fuel oil):				
HAPs = (5.8 lb/hr) × (8,760 hr/yr/2,00	0 lb/ton) = 25.3	3 tpy		
11. Potential, Fugitive, and Actual Emissions Comment:				

EMISSIONS UNIT INFORMATIONSection [1]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions of	Not applicable
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description o	f Operating Method):

<u>Allowable Emissions</u> Allowable Emissions ____ of ____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:	
			lb/hour tons/year	
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description o	of Op	perating Method):	

Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:	
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance:		
6. Allowable Emissions Comment (Description of	of Operating Method):	

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G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>1</u> of <u>2</u>

1.	1. Visible Emissions Subtype:2. Basis for Allowable Opacity:		Opacity:		
	VE10	Rule	Other		
3.	 Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: Maximum Period of Excess Opacity Allowed: 		N/A % N/A min/hour		
4.	Method of Compliance:				
	EPA Reference Method 9				
5.	5. Visible Emissions Comment:				
	Title V Permit No. 0490015-016-AV, Condition A.11.				
	Emissions limit applicable during combustion of natural gas.				
Vi	Visible Emissions Limitation: Visible Emissions Limitation 2 of 2				

1.	Visible Emissions Subtype:	2. Basis for Allowable Opacity:		
	VE20	Rule	Other	
3.	Allowable Opacity:			
	Normal Conditions: 20 % Ex	ceptional Conditions:	N/A %	
	Maximum Period of Excess Opacity Allowe	ed:	N/A min/hour	
4.	Method of Compliance:			
	EPA Reference Method 9			
5.	Visible Emissions Comment:			
	Title V Permit No. 0490015-016-AV, Con	dition A.11.		
	Emissions limit applicable during combustion of No. 2 fuel oil.			

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H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 2

Parameter Code:	2. Pollutant(s):	
EM	NO _x	
CMS Requirement:	Rule Other	
Monitor Information		
Manufacturer: Thermo Electron		
Model Number: 42I	Serial Number: 0732425807	
Installation Date:	6. Performance Specification Test Date:	
11/09/07	12/25/07	
Continuous Monitor Comment:		
Required by 40 CFR 96 (CAIR).		
	Parameter Code: EM CMS Requirement: Monitor Information Manufacturer: Thermo Electron Model Number: 42I Installation Date: 11/09/07 Continuous Monitor Comment: Required by 40 CFR 96 (CAIR).	

<u>Continuous Monitoring System:</u> Continuous Monitor <u>2</u> of <u>2</u>

1. Para	meter Code:	2. Pollutant(s):
	CO_2	N/A
3. CMS	S Requirement:	Rule Other
4. Mon M	itor Information Ianufacturer: Thermo Electron	
Mo	del Number: 410I	Serial Number: 0800325523
5. Insta	Illation Date:	6. Performance Specification Test Date:
	11/09/07	12/25/07
7. Cont	tinuous Monitor Comment:	
Req	uired by 40 CFR 96 (CAIR).	

Section [1] of [5]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five
	years and would not be altered as a result of the revision being sought)
	Attached, Document ID: <u>Attachment C</u> Previously Submitted, Date
2.	 Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☑ Attached, Document ID: <u>Attachment K</u> ☑ Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date Not Applicable
4.	 Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attachment L</u> Previously Submitted, Date Not Applicable (construction application)
_	
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date Not Applicable
6	Compliance Demonstration Reports/Records:
0.	Attached, Document ID:
	Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date: $0//02/13$
	Test Date(s)/Pollutant(s) Tested: $\underline{U6/11/13 - CO, NO_x}$, and VE
	To be Submitted, Date (if known):
	Test Date(s)/Pollutant(s) Tested:
	Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute: Attached, Document ID: Not Applicable

Section [1]	of	[5]
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I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Ac	dditional Requirements for Air Construction	Permit Applications Not applicable
1.	Control Technology Review and Analysis (Rul F.A.C.; 40 CFR 63.43(d) and (e)): Attached, Document ID:	les 62-212.400(10) and 62-212.500(7),
2.	Good Engineering Practice Stack Height Analy 212.500(4)(f), F.A.C.):	ysis (Rules 62-212.400(4)(d) and 62-
3.	Description of Stack Sampling Facilities: (Req only)	uired for proposed new stack sampling facilities Not Applicable
Ac	dditional Requirements for Title V Air Opera	tion Permit Applications
1.	Identification of Applicable Requirements: Attached, Document ID: <u>Attachment F</u>	
2.	Compliance Assurance Monitoring: Attached, Document ID: <u>Attachment M</u>	Not Applicable
3.	Alternative Methods of Operation: Attached, Document ID: <u>Attachment N</u>	Not Applicable
4.	Alternative Modes of Operation (Emissions Tr	ading): Not Applicable

Additional Requirements Comment

NOTE:

EU 001 (CT-1A) and EUs 002 and 003 (CT-1B and CT-2A) are identical emissions units; i.e., all are GE 7EA CTs. CT-1A and CT-1B each have an associated unfired HRSG and share a common STG. CT-2A can only operate as a simple-cycle CT; i.e., does not have an HRSG.

Accordingly, the information provided in Section III, Emissions Unit Information, Section 1 for EU 001 is also applicable to Sections 2 and 3 for EUs 002 and 003 with the exception of identification numbers.

Section H, Continuous Monitor Information, for CT-1B (EU 002) is provided in the following table:

EU	Parameter	Manufacturer	Model	Serial Number	Installation Date	Performance Date
002	NO _x	Thermo Electron	42I	0732425808	11/09/07	12/22//07
002	CO ₂	Thermo Electron	410I	0800325528	11/09/07	12/22/07

CT-2A (EU 003) is equipped with a predictive emissions monitoring system (PEMS) in accordance with the requirements of 40 CFR 96 (CAIR).

EU	Parameter	Manufacturer	Model	Serial Number	Installation Date	Performance Date
003	Gas flow meter	Morfflow-Lin	8-inch Orifice 42I	FE-MG2-1-2A	11/09/2007	12/07/2007
004	Oil flow meter	Turhoffer	HO2X2-22- 200-CB	120973	11/09/2007	12/10/2007

Compliance demonstration information for CT-1B and CT-2A is as follows:

- CT-1B: Test date 04/18/12; submitted 05/09/12; pollutants tested NO_x, CO, and VE (natural gas).
- CT-2A: Test date 11/10/09; submitted 12/09; pollutants tested NO_x, SO₂, CO, VOC, and VE.

Section [4] of [5]

III. EMISSIONS UNIT INFORMATION

A. GENERAL EMISSIONS UNIT INFORMATION

<u>Title V Air Operation Permit Emissions Unit Classification</u>

1.	Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)						
	The emissions	unit addressed in this Er	nissions Unit Informati	on Section is a regulated			
	\boxtimes The emissions	unit addressed in this Er	nissions Unit Informati	on Section is an			
	unregulated en	nissions unit.					
En	<u>nissions Unit Desci</u>	ription and Status					
1.	Type of Emissions	Unit Addressed in this	Section: (Check one)				
	This Emissions	s Unit Information Section	on addresses, as a single	e emissions unit, a			
	single process	or production unit, or ac	tivity, which produces of the second second	one or more air			
	This Emission	which has at least one do	ennable emission point	(stack of vent).			
	of process or p	roduction units and activ	vities which has at least	one definable emission			
	point (stack or	vent) but may also prod	uce fugitive emissions.				
	\square This Emissions	s Unit Information Section	on addresses, as a single	e emissions unit, one or			
	more process of	or production units and a	ctivities which produce	fugitive emissions only.			
2.	2. Description of Emissions Unit Addressed in this Section:						
	One 4.4-million-gallon No. 2 fuel oil storage tank						
3.	Emissions Unit Ide	entification Number: 00	4				
4.	Emissions Unit	5. Commence	6. Initial Startup	7. Emissions Unit			
	Status Code:	Construction	Date:	Major Group			
	Α	Date: N/A	N/A	49			
8.	Federal Program A	Applicability: (Check all	that apply)				
	Acid Rain Unit						
	CAIR Unit						
9.	Package Unit:						
	Manufacturer: Model Number:						
10	. Generator Namepl	ate Rating: MW					
11.	. Emissions Unit Co	omment:					

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Emissions Unit Control Equipment/Method: Control of	Not applicable
1. Control Equipment/Method Description:	
2. Control Device or Method Code:	
Emissions Unit Control Equipment/Method: Control of	
1. Control Equipment/Method Description:	
2. Control Device or Method Code:	
Emissions Unit Control Equipment/Method: Control of	
1. Control Equipment/Method Description:	
2. Control Device or Method Code:	
Emissions Unit Control Equipment/Method: Control of	
1. Control Equipment/Method Description:	

2. Control Device or Method Code:

Section [4] of [5]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Er	nissions Unit Operating Capacity and Schedule	Not applicable	
1.	Maximum Process or Throughput Rate:		
2.	Maximum Production Rate:		
3.	Maximum Heat Input Rate: million Btu/hr		
4.	Maximum Incineration Rate: pounds/hr		
	tons/day		
5.	Requested Maximum Operating Schedule:		
	hours/day	days/week	
	weeks/year	hours/year	
6.	Operating Capacity/Schedule Comment:		

EMISSIONS UNIT INFORMATION Section [4] of [5]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for	r unregulated	emissions	units.)
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Emission Point Description	and Type	Not applicable		
1. Identification of Point on Flow Diagram:	Plot Plan or	2. Emission Point 7	Type Code:	
3. Descriptions of Emission	Points Comprising	g this Emissions Unit	for VE Tracking:	
4. ID Numbers or Descriptio	ns of Emission Ur	nits with this Emission	n Point in Common:	
	_			
5. Discharge Type Code:	6. Stack Height		7. Exit Diameter:	
	0 4 4 1 1 1	teet	teet	
8. Exit Temperature: °F	9. Actual Volur	netric Flow Rate:	10. water vapor:	
11. Maximum Dry Standard F	Tow Rate:	12. Nonstack Emissi	on Point Height:	
dscfm		feet		
13. Emission Point UTM Coo	rdinates	14. Emission Point Latitude/Longitude		
Zone: East (Km): North (km)		Latitude (DD/M)	M/SS) MM/SS)	
15 Emission Point Comment:	•		viivi/33)	

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D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Pro-	cess/Fuel Type):				
Petroleum and solvent evaporation, petroleum liquid storage, fixed-roof tanks, distillate fuel oil No. 2: breathing loss					
2. Source Classification Cod	2. Source Classification Code (SCC): 3. SCC Units:				
4-03-010-19			Thousand gallons stored		
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity		
N/A	4,4	100	Factor: N/A		
7. Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:		
N/A	Ν	/A	1,040		
10. Segment Comment:					

<u>Segment Description and Rate:</u> Segment <u>2</u> of <u>2</u>

1. Segment Description (Pro	cess/Fuel Type):		
Petroleum and solvent e distillate fuel oil No. 2:	vaporation, peti working loss	oleum liquid st	orage, fixed-roof tanks,
2. Source Classification Cod	le (SCC):	3. SCC Units	:
4-03-010-78		Thous	and gallons throughput
4. Maximum Hourly Rate: N/A	5. Maximum 97	Annual Rate: , 065	6. Estimated Annual Activity Factor: N/A
7. Maximum % Sulfur: N/A	8. Maximum	% Ash: // A	9. Million Btu per SCC Unit: N/A
10. Segment Comment:			

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E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant				
	Device Code	Device Code	Regulatory Code				
Potential VOC emissions <5.0 tpy							

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

|--|

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour	4. Synthetically Limited?tons/yearYesNo
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):
6. Emission Factor:	7. Emissions Method Code:
Reference:	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:
tons/year	From: To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:
tons/year	\Box 5 years \Box 10 years
10. Calculation of Emissions:	1
11 Potential Eugitive and Actual Emissions C	omment:
11. Potential, Fugitive, and Actual Emissions C	omment:
Reference: 8.a. Baseline Actual Emissions (if required): tons/year 9.a. Projected Actual Emissions (if required): tons/year 10. Calculation of Emissions: 11. Potential, Fugitive, and Actual Emissions C	8.b. Baseline 24-month Period: From: To: 9.b. Projected Monitoring Period: 5 years 10 years

EMISSIONS UNIT INFORMATIONSection [4]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subjectto a numerical emissions limitation.Not applicable

Allowable Emissions _____ of _____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date o Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E	Emissions:
			lb/hour	tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description o	fOp	perating Method):	

Allowable Emissions _____ of _____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	of Op	perating Method):

Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description o	f Operating Method):

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G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation. *Not applicable*

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:	2. Basis for Allowable C	Dpacity:
3.	Allowable Opacity:		0/
	Normal Conditions: % Ex	ceptional Conditions:	%
	Maximum Period of Excess Opacity Allowe	ed:	min/hour
4.	Method of Compliance:		
5.	Visible Emissions Comment:		

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:		2. Basis for Allowabl	le Opacity:
3.	Allowable Opacity:			
	Normal Conditions:	% I	Exceptional Conditions:	%
	Maximum Period of Excess Opa	acity Allow	wed:	min/hour
4.	Method of Compliance:			
5.	Visible Emissions Comment:			

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H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if th	is emissions unit is or would be subject to continuous
monitoring.	Not applicable

Continuous Monitoring System: Continuous Monitor _____ of _____

1.	Parameter Code:	2. Pollutant(s):
3.	CMS Requirement:	Rule Other
4.	Monitor Information Manufacturer:	
	Model Number:	Serial Number:
5.	Installation Date:	6. Performance Specification Test Date:
7.	Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor _____ of _____

1.	Parameter Code:	2. Pollutant(s):
3.	CMS Requirement:	Rule Dther
4.	Monitor Information Manufacturer:	
	Model Number:	Serial Number:
5.	Installation Date:	6. Performance Specification Test Date:
7.	Continuous Monitor Comment:	

Section [4]	of	[5]
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I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

Na	ot applicable
1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
	Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
6	Compliance Demonstration Reports/Records:
0.	Attached, Document ID:
	Test Date(s)/Pollutant(s) Tested:
	Previously Submitted Date:
	Test Date(s)/Pollutant(s) Tested:
	T-h-S-h-itted D-te (ifler error)
	Test Date(s)/Pollutant(s) Tested:
	Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute: Attached, Document ID: Not Applicable

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Ac	Iditional Requirements for Air Construction	Permit Applications Not applicable
1.	Control Technology Review and Analysis (R F.A.C.; 40 CFR 63.43(d) and (e)): Attached, Document ID:	ules 62-212.400(10) and 62-212.500(7),
2.	Good Engineering Practice Stack Height Ana 212.500(4)(f), F.A.C.): Attached, Document ID:	lysis (Rules 62-212.400(4)(d) and 62-
3.	Description of Stack Sampling Facilities: (Re only)	equired for proposed new stack sampling facilities Not Applicable
A	lditional Requirements for Title V Air Oper	ation Permit Applications
1.	Identification of Applicable Requirements: \square Attached, Document ID: <u>Attachment F</u>	
2.	Compliance Assurance Monitoring: Attached, Document ID:	🛛 Not Applicable
3.	Alternative Methods of Operation: Attached, Document ID:	Not Applicable
4.	Alternative Modes of Operation (Emissions T Attached, Document ID:	Trading):

Additional Requirements Comment

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III. EMISSIONS UNIT INFORMATION

A. GENERAL EMISSIONS UNIT INFORMATION

<u>Title V Air Operation Permit Emissions Unit Classification</u>

1.	. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)					
	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.					
	The emissions unregulated en	unit addressed in this En nissions unit.	nissions Unit Informati	on Section is an		
En	nissions Unit Desci	ription and Status				
1.	Type of Emissions	Unit Addressed in this	Section: (Check one)			
	\square This Emissions	s Unit Information Section	on addresses, as a singl	e emissions unit, a		
	single process	or production unit, or ac	tivity, which produces	one or more air (stack or vent)		
	This Emission	s Unit Information Secti	on addresses as a singl	e emissions unit a group		
	of process or p	roduction units and activ	vities which has at least	one definable emission		
	point (stack or	vent) but may also prod	uce fugitive emissions.			
	This Emissions	s Unit Information Section	on addresses, as a singl	e emissions unit, one or		
	more process of	or production units and a	ctivities which produce	fugitive emissions only.		
2.	Description of Em	issions Unit Addressed i	in this Section:			
	Combustion turb	ine 2B (CT-2B)				
3.	Emissions Unit Ide	entification Number: 00	5			
4.	Emissions Unit	5. Commence	6. Initial Startup	7. Emissions Unit		
	Status Code:	Construction	Date:	Major Group		
	Α	N/A	N/A	49		
8.	Federal Program A	Applicability: (Check all	that apply)			
	Acid Rain Uni	t	11 27			
	🔀 CAIR Unit					
9.	Package Unit:					
	Manufacturer: Ge	neral Electric (GE)	Model Number:	PG-7111EA		
10	10. Generator Nameplate Rating: 95 MW					
11	11. Emissions Unit Comment:					

Section [5] of [5]

Emissions Unit Control Equipment/Method: Control <u>1</u> of <u>2</u>

1. Control Equipment/Method Description:

NO_x (natural gas) – dry low-NO_x (DLN) combustion

2. Control Device or Method Code: 025

Emissions Unit Control Equipment/Method: Control <u>2</u> of <u>2</u>

1. Control Equipment/Method Description:

NO_x (No. 2 distillate fuel oil) – wet injection

2. Control Device or Method Code: 028

Emissions Unit Control Equipment/Method: Control _____ of _____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Emissions Unit Control Equipment/Method: Control _____ of ____

1. Control Equipment/Method Description:

2. Control Device or Method Code:

Section [5] of [5]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1.	Maximum Process or Throughput Rate:			
2.	Maximum Production Rate:			
3.	Maximum Heat Input Rate: 1,060.0 million Btu/hr, LHV			
4.	Maximum Incineration Rate: pounds/hr			
	tons/day			
5.	Requested Maximum Operating Schedule: (Natural gas)			
	24 hours/day 7 days/week			
	52 weeks/year 8,760 hours/year			
6.	Operating Capacity/Schedule Comment:			
	Maximum heat input rate shown in Field 3 is for No. 2 fuel oil at 59°F ambient temperature and baseload. Maximum heat input rate when firing natural gas is 950.0 MMBtu/hr, LHV, at 59°F ambient temperature and baseload. No. 2 fuel oil firing is limited to no more than 876 hr/yr.			

Section [5] of [5]

C. EMISSION POINT (STACK/VENT) INFORMATION (Optional for unregulated emissions units.)

Emission Point Description and Type

	Emission Font Description and Type						
1.	Identification of Point on	Plot Plan or	2. Emission Point	Type Code:			
	Flow Diagram: CT-2B			1			
3.	Descriptions of Emission	Points Comprising	g this Emissions Unit	for VE Tracking:			
	N/A						
1	ID Numbers or Descriptio	na of Emission U	nite with this Emission	Point in Common:			
4.	ID Numbers of Descriptio						
	N/A						
5.	Discharge Type Code:	6. Stack Height		7. Exit Diameter:			
	\mathbf{V}	8	5 feet	14.8 feet			
8.	Exit Temperature:	9. Actual Volum	netric Flow Rate:	10. Water Vapor:			
	1,000 °F	1,465	,500 acfm	N/A %			
11.	Maximum Dry Standard F	low Rate:	12. Nonstack Emissi	on Point Height:			
	N/A dscfm		Ν	/A feet			
13.	Emission Point UTM Coo	rdinates	14. Emission Point Latitude/Longitude				
	Zone: East (km):		Latitude (DD/MM/SS)				
	North (km):		Longitude (DD/MM/SS)				
15.	15. Emission Point Comment:						

Section [5] of [5]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment <u>1</u> of <u>2</u>

1. Segment Description (Process/Fuel Type):

Internal combustion engines, electric generation, natural gas, turbine

2.	. Source Classification Code (SCC):		3. SCC Units:			
	2-01-002-01		Million cubic feet burned			
4.	Maximum Hourly Rate:	5.	Maximum A	Annual Rate:	6.	Estimated Annual Activity
	1.00		8,7	760		Factor: N/A
7.	Maximum % Sulfur:	8.	Maximum	% Ash:	9.	Million Btu per SCC Unit: 950 (LHV)
10	10. Segment Comment:					

Fields 4 and 5 maximum hourly and annual rates based on 950 MMBtu/hr (LHV) at 59°F and 8,760 hr/yr.

<u>Segment Description and Rate:</u> Segment <u>2</u> of <u>2</u>

1.	Segment Description (Process/Fuel Type):						
	Internal combustion eng	ines, electric gei	neration, distilla	ate oil (No. 2), turbine			
2.	Source Classification Code	e (SCC):	3. SCC Units:	:			
	2-01-001-01		Thou	usand gallons burned			
4.	Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity			
	8.28	7,2	254	Factor: N/A			
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:			
	0.05	0.	01	128 (LHV)			
10.	10. Segment Comment:						
	Fields 4 and 5 maximum hourly and annual rates based on 1,060 MMBtu/hr (LHV) at 59°F and 8,760 hr/yr.						

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E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO ₂			EL
NO _x	025, 028		EL
СО			EL
VOC			EL
PM/PM ₁₀			NS
H095 (formaldehyde)			NS
H106 (hydrochloric acid)			NS
HAPs			NS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: 2. Total Percent Efficiency of Control: N/A				
3. Potential Emissions: 57.7 lb/hour 49.7	4. Synthetically Limited? 7.7 tons/year Yes No			
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable): N/A			
 6. Emission Factor: 1.01 × percent sulfur (N lb/MMBtu, HHV 0.94 × percent sulfur (na lb/MMBtu, HHV Reference: Table 3.1-2a, AP-42 	Io. 2 fuel oil) –7. Emissions Method Code:atural gas) –3			
8.a. Baseline Actual Emissions (if required): tons/year N/A	8.b. Baseline 24-month Period: N/A From: To:			
9.a. Projected Actual Emissions (if required): tons/year N/A	9.b. Projected Monitoring Period: N/A 5 years 10 years			
10. Calculation of Emissions:Hourly rate (No. 2 fuel oil – 0.05-percent sulfur):SO2 = (1.01 × 0.05 lb/MMBtu) × (1,143 × MMBtu/hr) = 57.7 lb/hrAnnual rate (No. 2 fuel oil and natural gas):SO2 = [(57.7 lb/hr) × (876 hr/yr)] + [(0.94 × 0.0063 lb/MMBtu) × (1,050 MMBtu/hr × 7,884 hr/yr)] × (1 ton/2,000 lb)= 49.7 tpy				
 11. Potential, Fugitive, and Actual Emissions Comment: Natural gas sulfur content of 0.0063 weight percent based on 2.0 grains of sulfur per 100 cubic feet (gr S/100 ft³) 				

EMISSIONS UNIT INFORMATIONSection [5]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
OTHER	Emissions: N/A
 Allowable Emissions and Units: 2.0 gr S/100 ft³ 	4. Equivalent Allowable Emissions:6.2 lb/hour27.1 tons/year

5. Method of Compliance:

Fuel sampling and analysis per applicable ASTM methods

6. Allowable Emissions Comment (Description of Operating Method):

Title V Permit No. 0490015-016-AV, Condition B.8 (natural gas)

Allowable Emissions Allowable Emissions 2 of 2

 Basis for Allowable Emissions Code: OTHER 	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: 0.05 weight percent sulfur	4. Equivalent Allowable Emissions:57.7 lb/hour25.3 tons/year
5. Method of Compliance: Fuel sampling and analysis per applicable	ASTM methods

Fuch sampling and analysis per applicable ASTIM methods

6. Allowable Emissions Comment (Description of Operating Method):

Title V Permit No. 0490015-016-AV, Condition B.8 (No. 2 fuel oil)

Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:		
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5. Method of Compliance:			
6. Allowable Emissions Comment (Description of	of Operating Method):		

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: 2. Total Percent			ncy of Control:
3. Potential Emissions: 167.0 lb/hour 199.3	4. Synthetically Limited? 5 tons/year		
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable): N	N/A	
6. Emission Factor: 167.0 lb/hr (No. 2 fuel o Reference: Condition B.6.b, Title V No. 0490015-016-AV	il) ′ Permit		7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year N/A	8.b. Baseline From:	24-month	Period: N/A o:
9.a. Projected Actual Emissions (if required): tons/year N/A	9.b. Projected Monitoring Period: N/A 5 years 10 years		
tons/year N/A \Box 5 years \Box 10 years 10. Calculation of Emissions: Hourly rate (No. 2 fuel oil): NO _x = 167.0 lb/hr Annual rate (No. 2 fuel oil and natural gas): NO _x = [(167.0 lb/hr) × (876 hr/yr)] + [(32.0 lb/hr) × (7,884 hr/yr)] × (1 ton/2,000 lb) = 199.3 tpy			
11. Potential, Fugitive, and Actual Emissions Comment:			

EMISSIONS UNIT INFORMATIONSection [5]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: N/A
 Allowable Emissions and Units: 9.0 ppmvd at 15-percent oxygen 	4. Equivalent Allowable Emissions: 32.0 lb/hour 140.2 tons/year
5. Method of Compliance: EPA Reference Method 20	

6. Allowable Emissions Comment (Description of Operating Method):

Title V Permit No. 0490015-016-AV, Condition B.6.a (natural gas)

Allowable Emissions Allowable Emissions 2 of 2

1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: N/A		
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions:		
	42.0 ppmvd at 15-percent oxygen		16/.0 lb/nour	/ 3.1 tons/year
5.	Method of Compliance:			
	EPA Reference Method 20			
6.	Allowable Emissions Comment (Description o	f Op	perating Method):	
	Title V Permit No. 0490015-016-AV, Condit	ion	B.6.b (No. 2 fuel oil)	

Allowable Emissions _____ of _____

1. Basis for Allowa	ble Emissions Code:	2.	2. Future Effective Date of Allowable Emissions:	
3. Allowable Emiss	ions and Units:	4.	Equivalent Allowable E lb/hour	missions: tons/year
5. Method of Comp	liance:			
6. Allowable Emiss	ions Comment (Description o	of Oj	perating Method):	

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:					
CO	N/A					
3. Potential Emissions:		4. Synthe	etically Limited?			
43.0 lb/hour 188.	tons/year Yes X No					
5. Range of Estimated Fugitive Emissions (as applicable): N/A						
to tons/year						
6. Emission Factor: 43.0 lb/hr (Natural gas	or No. 2 fuel oi	il)	7. Emissions			
Reference: Condition B.7.b, Title V	Permit		Method Code:			
No. 0490015-010-AV	0					
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period: N/A					
tons/year N/A	From: To:					
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period: N/A					
tons/year N/A	\Box 5 years \Box 10 years					
10. Calculation of Emissions:						
Hourly rate (Natural gas or No. 2 fuel oil):						
CO = 43.0 lb/hr						
Annual rate (Natural gas):						
CO = [(43.0 lb/hr) × (8,760 hr/yr)] × (1 ton/2,000 lb) = 188.3 tpy						
11 Potential Eugitive and Actual Emissions Comment:						
EMISSIONS UNIT INFORMATIONSection [5]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: N/A
 Allowable Emissions and Units: 20.0 ppmvd at 15-percent oxygen 	4. Equivalent Allowable Emissions:43.0 lb/hour188.3 tons/year
5. Method of Compliance: EPA Reference Method 10	

6. Allowable Emissions Comment (Description of Operating Method):

Title V Permit No. 0490015-016-AV, Condition B.7.a (natural gas)

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: N/A	
 Allowable Emissions and Units: 20.0 ppmvd at 15-percent oxygen 	4. Equivalent Allowable Emissions:43.0 lb/hour18.8 tons/year	
5. Method of Compliance: EPA Reference Method 10	<u>.</u>	
6. Allowable Emissions Comment (Description of Operating Method): Title V Permit No. 0490015-016-AV, Condition B 7 b (No. 2 fuel oil)		

Allowable Emissions _____ of _____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Er lb/hour	nissions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description o	fOp	perating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control: N/A		
3. Potential Emissions: 5.0 lb/hour 10.1	l tons/year	etically Limited?	
5. Range of Estimated Fugitive Emissions (as to tons/year	5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year		
6. Emission Factor: 5.0 lb/hr (No. 2 fuel oil) Reference: Condition B.11.b, Title V Permit No. 0490015-016-AV			7. Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required): tons/year N/A	8.b. Baseline From:	24-month	Period: N/A o:
9.a. Projected Actual Emissions (if required): tons/year N/A): 9.b. Projected Monitoring Period: N/A 5 years 10 years		
10. Calculation of Emissions: Hourly rate (No. 2 fuel oil): VOC = 5.0 lb/hr Annual rate (No. 2 fuel oil and natural ga VOC = [(5.0 lb/hr) × (876 hr/yr)] + [(2 = 10.1 tpy	s): 2.0 lb/hr) × (7,8	884 hr/yr)]	× (1 ton/2,000 lb)
11. Potential, Fugitive, and Actual Emissions C	omment:		

EMISSIONS UNIT INFORMATIONSection [5]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

<u>Allowable Emissions</u> Allowable Emissions <u>1</u> of <u>2</u>

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Allowable Emissions: N/A
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
	2.0 ppmvd		2.0 lb/hour 8.8 tons/year
5.	Method of Compliance:		

EPA Reference Method 25A

6. Allowable Emissions Comment (Description of Operating Method):

Title V Permit No. 0490015-016-AV, Condition B.11.a (natural gas)

Allowable Emissions Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: N/A	
 Allowable Emissions and Units: 4.0 ppmvd 	4. Equivalent Allowable Emissions: 5.0 lb/hour2.2 tons/year	
5. Method of Compliance: EPA Reference Method 25A		
Allowable Emissions Comment (Description of Operating Method):		

Title V Permit No. 0490015-016-AV, Condition B.11.b (No. 2 fuel oil)

Allowable Emissions _____ of _____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable En lb/hour	nissions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description o	fOp	perating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: PM/PM ₁₀	2. Total Percent Efficiency of Control: N/A			
3. Potential Emissions:4.13.7 lb/hour33.3 tons/year			etically Limited? es 🔲 No	
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year				
6. Emission Factor: 0.012 lb/MMBtu, HHV (No. 2 fuel oil) 0.0066 lb/MMBtu, HHV (Natural gas) Reference: Table 3.1-2a, AP-42			7. Emissions Method Code: 3	
8.a. Baseline Actual Emissions (if required): tons/year N/A	8.b. Baseline From:	24-month T	Period: N/A o:	
9.a. Projected Actual Emissions (if required): tons/year N/A	9.b. Projected	l Monitorir ars 🗌 10	ng Period: N/A) years	
10. Calculation of Emissions:				
Hourly rate (No. 2 fuel oil):				
$PM/PM_{10} = (0.012 lb/MMBtu) \times (1,14)$	3 MMBtu/hr)	= 13.7 lb/h	r	
Annual rate (No. 2 fuel oil and natural ga	s):			
PM/PM ₁₀ = [(13.7 lb/hr) × (876 hr/yr)] + [(0.0066 lb/MMBtu) × (1,050 MMBtu/hr) × (7,884 hr/yr)] × (1 ton/2,000 lb) = 33.3 tpy				
11. Potential, Fugitive, and Actual Emissions Comment:				

EMISSIONS UNIT INFORMATIONSection [5]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Al	lowable Emissions of	f	Not applicable	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year	
5.	5. Method of Compliance:			
 6. Allowable Emissions Comment (Description of Operating Method): NOTE: Visible emissions is used as a surrogate for PM/PM₁₀ per Title V Permit No. 0490015-016-AV. Condition No. B 10 				
	NOTE: Visible emissions is used as a surro No. 0490015-016-AV, Condition No. B.10.	gate	for PM/PM ₁₀ per Title V Permit	
Al	NOTE: Visible emissions is used as a surro No. 0490015-016-AV, Condition No. B.10. Iowable Emissions Allowable Emissions of	gate	for PM/PM ₁₀ per Title V Permit	
<u>Al</u> 1.	NOTE: Visible emissions is used as a surro No. 0490015-016-AV, Condition No. B.10. Iowable Emissions Allowable Emissions of Basis for Allowable Emissions Code:	gate	for PM/PM ₁₀ per Title V Permit Future Effective Date of Allowable Emissions:	
<u>Al</u> 1. 3.	NOTE: Visible emissions is used as a surro No. 0490015-016-AV, Condition No. B.10. Iowable Emissions Allowable Emissions of Basis for Allowable Emissions Code: Allowable Emissions and Units:	gate	for PM/PM ₁₀ per Title V Permit Future Effective Date of Allowable Emissions: Equivalent Allowable Emissions: lb/hour tons/year	

6. Allowable Emissions Comment (Description of Operating Method):

Allowable Emissions _____ of _____

1. Bas	sis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	Allowable
3. Alle	owable Emissions and Units:	4.	Equivalent Allowable En	missions:
			lb/hour	tons/year
5. Me	thod of Compliance:			
6. Alle	owable Emissions Comment (Description o	fOp	perating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: H095 (formaldabyda)	2. Total Percent Efficiency of Control:		
3 Potential Emissions:	Potential Emissions: 4 Synthetically Limited?		
0.32 lb/hour 3.1	1 tons/year \square Yes \square No		
5. Range of Estimated Fugitive Emissions (as	5. Range of Estimated Fugitive Emissions (as applicable): N/A		
to tons/year			
6. Emission Factor: 0.00028 lb/MMBtu, HH	V (No. 2 fuel o	oil)	7. Emissions
Reference: Table 3.1-4, AP-42	HV (Natural g	as)	3, 5
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period: N/A
tons/year N/A	From:	Т	0:
9.a. Projected Actual Emissions (if required):	9.b. Projected	d Monitorir	ng Period: N/A
tons/year N/A	🗌 5 yea	ars 🗌 10) years
10. Calculation of Emissions:			
Hourly rate (No. 2 fuel oil):			
Formladebyde = (0.00028 lb/MMBtu)	× (1.143 MMI	Stu/hr) = 0	.32 lb/hr
		<i>y u i i i i i i i i i i</i>	
Annual rate (No. 2 fuel oil and natural ga	s):		
Formaldebyde = [(0 32 lb/br) × (876 b	r/vr)] + [(0 00)	0219 lb/MI	MRtu) ×
(1,050 MMBtu/hr) ×	(7,884 hr/yr)]	\times (1 ton/2,	000 lb)
= 3.1 tpy			
11. Potential, Fugitive, and Actual Emissions C	omment:		
	· · · · · · · · · · · · · · · · · · ·		L'11'
Natural gas emissions factor based on GE estimate of 91 parts per billion at 15-percent oxygen for dry low-NO. CTs			
$\begin{bmatrix} 15 percent oxygen for any four-room oxy gen for any four-room oxygen for any four-room ox$			

EMISSIONS UNIT INFORMATIONSection [5]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

<u>All</u>	owable Emissions of		Not applicable
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	fOp	perating Method):

<u>Allowable Emissions</u> Allowable Emissions ____ of ____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
			lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	of Op	perating Method):

Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of	of Operating Method):

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:				
H106 (hydrochloric acid)	N/A				
3. Potential Emissions:		4. Synthe	etically Limited?		
2.1 lb/hour 0.9	tons/year	X Ye	es 🔄 No		
5. Range of Estimated Fugitive Emissions (as	s applicable): N	N/A			
to tons/year					
6. Emission Factor: 0.00187 lb/MMBtu, HH	V (No. 2 fuel a	oil)	7. Emissions		
(30 mg/L Cl)			Method Code:		
Reference: EPA boiler MACT supp	porting data		5		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period: N/A		
tons/year N/A	From:	Т	D:		
9.a. Projected Actual Emissions (if required):	9.b. Projected	d Monitorin	g Period: N/A		
tons/year N/A	5 yea	\Box 5 years \Box 10 years			
10. Calculation of Emissions:	I				
Hourly rate (No. 2 fuel oil): Hydrochloric acid = (0.00187 lb/MMBtu) × (1,143 MMBtu/hr) = 2.1 lb/hr Annual rate (No. 2 fuel oil):					
$Hydrochloric acid - (2.1 \text{ ID/IIr}) \times (870)$	IIF/yF/2,000 ID	/ton) – 0.9	ıpy		
11. Potential, Fugitive, and Actual Emissions Comment:					

EMISSIONS UNIT INFORMATIONSection [5]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions of	Not applicable
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description o	f Operating Method):

<u>Allowable Emissions</u> Allowable Emissions ____ of ____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
			lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	of Op	perating Method):

Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of	of Operating Method):

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:			
пагу		IN/A		
3. Potential Emissions:		4. Synthe	etically Limited?	
4.7 lb/hour 4. 1	4.7 lb/hour 4.1 tons/year 1 Ye			
5. Range of Estimated Fugitive Emissions (as	s applicable): N	/A		
to tons/year				
6. Emission Factor: 0.0041 lb/MMBtu, HHV	/ (Composite ho	ourly,	7. Emissions	
No. 2 fuel oil)		-	Method Code:	
0.00089 lb/MMBtu, HH	V (Composite a	annual,	3, 5	
No. 2 fuel oil and natura	al gas)			
Reference: Tables 3.1-3 through 3.1-5, AP-42; EPA boil				
MACT supporting data				
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 2	24-month	Period: N/A	
tons/year N/A	From:	Te	0:	
9.a. Projected Actual Emissions (if required):	9.b. Projected	Monitorin	g Period: N/A	
tons/year N/A	\Box 5 years \Box 10 years			
10. Calculation of Emissions:				
Hourly rate (No. 2 fuel oil):				

HAPs = (0.0041 lb/MMBtu) × (1,143 MMBtu/hr) = 4.7 lb/hr

Annual rate (No. 2 fuel oil):

HAPs = (0.00089 lb/MMBtu) × (9,279,304 MMBtu/yr) × 1 ton/2,000 lb) = 4.1 tpy

11. Potential, Fugitive, and Actual Emissions Comment:

EMISSIONS UNIT INFORMATIONSection [5]of [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions of	Not applicable
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description o	f Operating Method):

<u>Allowable Emissions</u> Allowable Emissions ____ of ____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
			lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	fOp	perating Method):

Allowable Emissions _____ of _____

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
			lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description o	of Op	perating Method):

Section [5] of [5]

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>1</u> of <u>1</u>

1.	Visible Emissions Subtype:	2. Basis for Allowable Opacity:				
	VE10	Rule Other				
3.	Allowable Opacity:					
	Normal Conditions: 10 % Ex	ceptional Conditions: N/A %				
	Maximum Period of Excess Opacity Allowe	ed: N/A min/hour				
4.	Method of Compliance:					
	EPA Reference Method 9					
5.	Visible Emissions Comment:					
	Title V Permit No. 0490015-016-AV, Condition B.10.					
	Emissions limit applicable during combustion of natural gas and No. 2 fuel oil					
Vi	Visible Emissions Limitation: Visible Emissions Limitation of					
1.	Visible Emissions Subtype:	2. Basis for Allowable Opacity:				

		Rule	Other
3.	Allowable Opacity: Normal Conditions: % Maximum Period of Excess Opacity Allo	Exceptional Conditions: wed:	% min/hour
4.	Method of Compliance:		
5.	Visible Emissions Comment:		

Section [5] of [5]

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

<u>Continuous Monitoring System:</u> Continuous Monitor <u>1</u> of <u>2</u>

1.	Parameter Code:	2. Pollutant(s):
	EM	NO _x
3.	CMS Requirement:	Rule Other
4.	Monitor Information	
	Manufacturer: TECO	
	Model Number: 42CHL	Serial Number: 42CHL-65518-348
5.	Installation Date:	6. Performance Specification Test Date:
	07/01/00	07/01/00
7.	Continuous Monitor Comment:	
	Required by 40 CFR 75 (ARP) and 40 CF	FR 96 (CAIR).

<u>Continuous Monitoring System:</u> Continuous Monitor <u>2</u> of <u>2</u>

2. Parameter Code:	2. Pollutant(s):
Oxygen	N/A
3. CMS Requirement:	Rule Other
4. Monitor Information Manufacturer: Servomex	
Model Number: 1440C	Serial Number: 01420C/1298
5. Installation Date:	6. Performance Specification Test Date:
07/01/00	07/01/00
	÷
7. Continuous Monitor Comment:	

Section [5] of [5]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit
	revision applications if this information was submitted to the department within the previous live vears and would not be altered as a result of the revision being sought)
	\mathbf{X} Attached Document ID: Attachment C Previously Submitted Date
2	Fuel Analysis or Specification: (Required for all permit applications, except Title V air
2.	operation permit revision applications if this information was submitted to the department within
	the previous five years and would not be altered as a result of the revision being sought)
	Attached. Document ID: Attachment K Previously Submitted. Date
3	Detailed Description of Control Equipment: (Required for all permit applications, except Title
	V air operation permit revision applications if this information was submitted to the department
	within the previous five years and would not be altered as a result of the revision being sought)
	Attached, Document ID: Previously Submitted, Date
	Not Applicable
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except
	Title V air operation permit revision applications if this information was submitted to the
	department within the previous five years and would not be altered as a result of the revision being
	sought)
	Attached, Document ID: <u>Attachment L</u> Previously Submitted, Date
	Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air
	operation permit revision applications if this information was submitted to the department within
	the previous five years and would not be altered as a result of the revision being sought) \Box
	Attached, Document ID: Previously Submitted, Date
(Constituent Demonstration Demonstration Demonstration
0.	Compliance Demonstration Reports/Records:
	Tast Data(a)/Dellutent(a) Tastad:
	Test Date(s)/Pollutani(s) Testeu.
	\square Previously Submitted Date: 06/14/10 06/14/10 and 08/21/12
	Test Date(s)/Pollutant(s) Tested: $05/06/10 - CO NO_{\pi} VOC$ and VE (natural
	(5) (12/10 – CO, NO _x , VOC, and VE (low sulfur distillate oil): 07/25/12 –
	CO and VE (natural gas)
	\Box To be Submitted Date (if known).
	Test Date(s)/Pollutant(s) Tested:
	Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be
	submitted at the time of application. For Title V air operation permit applications, all required
	compliance demonstration reports/records must be submitted at the time of application, or a
	compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute:
	L Attached, Document ID: Not Applicable

Section	[4]	of	[5]
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I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications Not applicable				
1.	Control Technology Review and Analysis (Ru F.A.C.; 40 CFR 63.43(d) and (e)): Attached, Document ID:	ules 62-212.400(10) and 62-212.500(7),		
2.	Good Engineering Practice Stack Height Ana 212.500(4)(f), F.A.C.): Attached, Document ID:	lysis (Rules 62-212.400(4)(d) and 62-		
3.	Description of Stack Sampling Facilities: (Re only) Attached, Document ID:	equired for proposed new stack sampling facilities Not Applicable		
Ac	Additional Requirements for Title V Air Operation Permit Applications			
1.	Identification of Applicable Requirements: \square Attached, Document ID: <u>Attachment F</u>			
2.	Compliance Assurance Monitoring:	🛛 Not Applicable		
3.	Alternative Methods of Operation: Attached, Document ID: <u>Attachment N</u>	Not Applicable		
4.	Alternative Modes of Operation (Emissions T Attached, Document ID:	Trading):		

Additional Requirements Comment

FACILITY LOCATION MAP





FACILITY PLOT PLAN



PROCESS FLOW DIAGRAMS











PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

HARDEE POWER STATION PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Unconfined particulate matter (PM) emissions that may result from operations at HPS include:

- Vehicular traffic on paved and unpaved roads.
- Wind-blown dust from material storage and yard areas.
- Periodic abrasive blasting.

The following techniques may be used to control unconfined PM emissions on an asneeded basis:

- Paving and maintenance of roads, parking areas, and yards.
- Chemical (dust suppressants) or water application to:
 - Unpaved roads.
 - Unpaved yard areas.
 - Open stock piles.
- Removal of PM from roads and other paved areas to prevent reentrainment and from buildings or work areas to prevent airborne particulates.
- Landscaping or planting of vegetation.
- Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent PM.
- Confining abrasive blasting where possible.
- Enclosure or covering of conveyor systems.
- Other techniques, as necessary.

LIST OF INSIGNIFICANT ACTIVITIES

HARDEE POWER STATION LIST OF INSIGNIFICANT ACTIVITIES

- 1. Internal combustion engines mobile sources.
- 2. Vacuum pumps in laboratory operations.
- 3. Equipment used for steam cleaning.
- 4. Equipment used exclusively for space heating, other than boilers.
- 5. Laboratory equipment used exclusively for chemical or physical analyses.
- 6. Brazing, soldering, or welding equipment.
- 7. Fire protection and safety equipment.
- 8. Petroleum lubrication systems.
- 9. Application of fungicide, herbicide, or pesticide.
- 10. Vehicle refueling operations and associated fuel storage.
- 11. Degreasing units using heavier-than-air vapors exclusively that do not use any substance containing a hazardous air pollutant.
- 12. Nonhalogenated solvent storage and cleaning operations that do not use any substance containing a hazardous air pollutant.
- 13. Surface coating operations within a single facility, provided:
 - a. The surface coating operation uses only coatings containing 5.0 percent or less volatile organic compound (VOC) by volume, or the total quantity of coatings containing greater than 5.0 percent VOC by volume used at the facility does not exceed 6.0 gallons per day averaged monthly where the quantity of coatings used includes all solvents and thinners used in the process or for cleanup.
 - b. Such operations not subject to any unit-specific applicable requirement.
- 14. Fossil fuel steam generators, hot water generators, and other external combustion heating units with heat input capacity equal to or less than 10 million British thermal units per hour (MMBtu/hr), provided the following conditions are met with respect to each such unit:

HARDEE POWER STATION LIST OF INSIGNIFICANT ACTIVITIES

- a. Not subject to the Acid Rain Program, CAIR Program, or any unit-specific applicable requirement.
- b. Rated heat input capacity equal to or less than 10 MMBtu/hr and, collectively, total rated heat input capacity of all units claiming this exemption at the same facility less than 10 MMBtu/hr.
- c. Does not burn used oil or any fuels other than natural gas or propane, except fuel oil with a sulfur content not exceeding 1.0 percent by weight may be burned during periods of natural gas curtailment.
- 15. Fossil fuel steam generators, hot water generators, and other external combustion heating units with heat input capacity less than 100 MMBtu/hr, provided the following conditions are met with respect to each such unit.
 - a. Not subject to the Acid Rain Program, CAIR Program, or any unit-specific applicable requirement.
 - b. Rated heat input capacity of the unit less than 100 MMBtu/hr and, collectively, total rated heat input capacity of all units claiming this exemption at the same facility less than 250 MMBtu/hr.
 - c. Does not burn more than the maximum annual amount of a single fuel, as given in 15.e., or equivalent maximum annual amounts of multiple fuels, as addressed in 15.f.
 - d. Collectively, all units claiming this exemption at the same facility do not burn more than the collective maximum annual amount of a single fuel, as given in 15,g., or equivalent collective maximum annual amounts of multiple fuels, as addressed in 15.h.
 - e. If burning only one type of fuel, annual amount of fuel burned by the unit does not exceed 150 million standard cubic feet of natural gas, 1 million gallons of propane, 1 million gallons of fuel oil with a sulfur content not exceeding 0.05 percent by weight, 290,000 gallons of fuel oil with a sulfur content not exceeding 0.5 percent by weight, or 145,000 gallons of fuel oil with a sulfur content not exceeding 1.0 percent by weight.
 - f. If burning more than one type of fuel, equivalent annual amount of each fuel burned by the unit does not exceed maximum annual amount of such fuel, as given in 15.e., multiplied by a fuel percentage. Fuel percentage is the percentage ratio of the total annual amount of the fuel burned by the unit to the

HARDEE POWER STATION LIST OF INSIGNIFICANT ACTIVITIES

total annual amount of such fuel allowed to be burned by the unit pursuant to 15.e. Sum of fuel percentages for all fuels burned by the unit must be less than or equal to 100 percent.

- g. If burning only one type of fuel, collective annual amount of fuel burned by all units claiming this exemption at the same facility does not exceed 375 million standard cubic feet of natural gas, 2.5 million gallons of propane, 2.5 million gallons of fuel oil with a sulfur content not exceeding 0.05 percent by weight, 290,000 gallons of fuel oil with a sulfur content not exceeding 0.5 percent by weight, or 145,000 gallons of fuel oil with a sulfur content not exceeding 1.0 percent by weight.
- h. If burning more than one type of fuel, equivalent collective annual amount of each fuel burned by the units claiming this exemption at the same facility does not exceed collective maximum annual amount of such fuel, as given in 15.g., multiplied by a fuel percentage. Fuel percentage is the percentage ratio of the total annual amount of the fuel burned by all units claiming this exemption at the same facility to the total annual amount of such fuel allowed to be burned by all units claiming this exemption at the same facility pursuant to 15.g. Sum of fuel percentages for all fuels burned by the units claiming this exemption at the same facility must be less than or equal to 100 percent.

IDENTIFICATION OF APPLICABLE REQUIREMENTS

HARDEE POWER STATION IDENTIFICATION OF APPLICABLE REQUIREMENTS

A. <u>FACILITYWIDE REQUIREMENTS</u>

Federal:

40 CFR 82	Protection of Stratospheric Ozone.
40 CFR 82, Subpart F	Recycling and Emissions Reduction.

State:

CHAPTER 62-4, F.A.C., PERMITS, effective 10/01/13

62-4.030	General Prohibition
62-4.040	Exemptions
62-4.050	Procedure to Obtain Permits; Application
62-4.060	Consultation
62-4.070	Standards for Issuing or Denying Permits; Issuance; Denial
62-4.080	Modification of Permit Conditions
62-4.090	Renewals
62-4.100	Suspension and Revocation
62-4.110	Financial Responsibility
62-4.120	Transfer of Permits
62-4.130	Plant Operation – Problems
62-4.150	Review
62-4.160	Permit Conditions
62-4.210	Construction Permits
62-4.220	Operation Permit for New Sources

CHAPTER 62-210, F.A.C., STATIONARY SOURCES - GENERAL REQUIRE-MENTS, effective 12/31/13

62-210.300	Permits Required
62-210.300(1)	Air Construction Permits
62-210.300(2)	Air Operation Permits
62-210.300(3)	Exemptions
62-210.300(5)	Notification of Startup
62-210.300(6)	Emissions Unit Reclassification
62-210.300(7)	Transfer of Air Permits
62-210.350	Public Notice and Comment
62-210.350(1)	Public Notice of Proposed Agency Action

HARDEE POWER STATION IDENTIFICATION OF APPLICABLE REQUIREMENTS

62-210.350(2)	Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Non- attainment-Area Preconstruction Review
62-210.350(3)	Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources
62-210.360	Administrative Permit Corrections and Amendments
62-210.370(2) 62-210.370(3) ty	Computation of Emissions Annual Operating Report for Air Pollutant Emitting Facili-
62-210.650	Circumvention
62-210.700	Excess Emissions
62-210.900	Forms and Instructions
62-210.900(1)	Application for Air Permit – Long Form, Form and Instruc- tions
62-210.900(5)	Annual Operating Report for Air Pollutant Emitting Facili- ty, Form and Instructions
62-210.900(7)	Application for Transfer of Air Permit – Title V and Non- Title V Source

CHAPTER 62-212, F.A.C., STATIONARY SOURCES – PRECONSTRUCTION REVIEW, effective 03/28/12

62-212.300	General Preconstruction Review Requirements
62-212.400	Prevention of Significant Deterioration (PSD)
62-212.500	Preconstruction Review for Nonattainment Areas
62-212.710	Air Emissions Bubble
62-212.720	Actuals Plantwide Applicability Limits (PALS)

CHAPTER 62-213, F.A.C., OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 12/31/13

62-213.205	Annual Emissions Fee
62-213.400	Permits and Permit Revisions Required
62-213.405	Concurrent Processing of Permit Applications
62-213.410	Changes Without Permit Revision
62-213.412	Immediate Implementation Pending Revision Process

HARDEE POWER STATION IDENTIFICATION OF APPLICABLE REQUIREMENTS

62-213.415	Trading of Emissions Within a Source
62-213.420	Permit Applications
62-213.430	Permit Issuance, Renewal, and Revision
62-213.440	Permit Content
62-213.450	Permit Review by EPA and Affected States
62-213.460	Permit Shield
62-213.900	Forms and Instructions
62-213.900(1)	Major Air Pollution Source Annual Emissions Fee Form
62-213.900(7)	Statement of Compliance Form
62-213.900(8)	Responsible Official Notification Form

CHAPTER 62-256, F.A.C., OPEN BURNING AND FROST PROTECTION FIRES, effective 10/06/08

CHAPTER 62-296, F.A.C., STATIONARY SOURCES – EMISSIONS STAND-ARDS, effective 02/16/12

62-296.320(2)	Objectionable Odor Prohibited
62-296.320(3)	Permitted Open Burning
62-296.320(4)(b)	General Visible Emissions Standard
62-296.320(4)(c)	Unconfined Emissions of Particulate Matter

CHAPTER 62-297, F.A.C., STATIONARY SOURCES – EMISSIONS MONITOR-ING, effective 02/16/12

General Test Requirements
Standards for Persons Engaged in Visible Emissions Ob-
servations
Compliance Test Methods
Supplementary Test Procedures
Exceptions and Approval of Alternate Procedures and Re- quirements

Miscellaneous:

CHAPTER 28-106, F.A.C., DECISIONS DETERMINING SUBSTANTIAL IN-TERESTS, effective 12/24/07

CHAPTER 62-110, F.A.C., EXCEPTION TO THE UNIFORM RULES OF PRO-CEDURE, effective 07/01/98

HARDEE POWER STATION IDENTIFICATION OF APPLICABLE REQUIREMENTS

B. <u>CT-1A, CT-1B, and CT-2A; EUs 001, 002, 003</u>

CLEAN AIR INTERSTATE RULE (CAIR)

40 CFR 96	NO_x Budget Trading Program and CAIR NO_x and SO_2
	Trading Programs for State Implementation Plans

NEW SOURCE PERFORMANCE STANDARDS

40 CFR 60, Subpart A	General Provisions
60.7	Notification and Recordkeeping
60.8	Performance Tests
60.11	Compliance with Standards and Maintenance Requirements
60.12	Circumvention
60.13	Monitoring Requirements
60.19	General Notification and Reporting Requirements
40 CFR 60, Subpart GG	Standards of Performance for Stationary Gas Turbines
60.330	Applicability and Designation of Affected Facility
60.331	Definitions
60.332(a)(1)	Standard for Nitrogen Oxides
60.333	Standard for Sulfur Dioxide
60.334(a), (g), (h), (i), and ((i) Monitoring of Operations
60.335	Test Methods and Procedures
Rule 62-296.470, F.A.C.	Implementation of Federal Clean Air Interstate Rule (CAIR)

FINAL Permit No: 0490015-016-AV, Section III., EUs 001, 002, and 003; Permit Condition Nos. A.1. through A.23

[Please see Attachment H for requested changes to the current Title V Air Operation Permit.]

C. <u>CT-2B; EU 005</u>

ACID RAIN PROGRAM (ARP)

40 CFR 72	Permits Regulation
40 CFR 75	Continuous Emissions Monitoring

HARDEE POWER STATION IDENTIFICATION OF APPLICABLE REQUIREMENTS

40 CFR 77	Excess Emissions
40 CFR 78	Appeal Procedures

CLEAN AIR INTERSTATE RULE (CAIR)

40 CFR 96 NO_x Budget Trading Program and CAIR NO_x and SO₂ Trading Programs for State Implementation Plans

NEW SOURCE PERFORMANCE STANDARDS

40 CFR 60, Subpart A	General Provisions
60.7	Notification and Recordkeeping
60.8	Performance Tests
60.11	Compliance with Standards and Maintenance Requirements
60.12	Circumvention
60.13	Monitoring Requirements
60.19	General Notification and Reporting Requirements
40 CFR 60, Subpart GG	Standards of Performance for Stationary Gas Turbines
60.330	Applicability and Designation of Affected Facility
60.331	Definitions
60.332(a)(1)	Standard for Nitrogen Oxides
60.333	Standard for Sulfur Dioxide
60.334(b), (c), (h), (i), and (j) Monitoring of Operations
60.335	Test Methods and Procedures

Rule 62-213.413, F.A.C.: Fast-Track Revision of Acid Rain Parts.

CHAPTER 62-214, F.A.C., REQUIREMENTS FOR SOURCES SUBJECT TO THE FEDERAL ACID RAIN PROGRAM, effective 03/11/10

Rule 62-296.470, F.A.C. Implementation of Federal Clean Air Interstate Rule (CAIR).

FINAL Permit No: 0490015-016-AV, Section III., EU 005; Permit Condition Nos. B.1. through B.24

[Please see Attachment H for requested changes to the current Title V Air Operation Permit.]

COMPLIANCE REPORT AND RELATED CORRESPONDENCE
HARDEE POWER STATION COMPLIANCE REPORT AND RELATED CORRESPONDENCE

Attachment F to this Title V operation permit renewal application identifies the requirements that are applicable to the emissions units that comprise this Title V source. Each emissions unit is in compliance, and will continue to comply, with the respective applicable requirements.

HARDEE POWER PARTNERS LIMITED

Invenergy

Via Federal Express

February 28, 2014

Mr. Erin DiBacco Florida Department of Environmental Protection Southwest District Office 13051 North Telecom Parkway Temple Terrace, FL 33637-0926

Re: Hardee Power Partners Limited Hardee Power Station Title V Air Operation Permit No. 0490015-016-AV 2013 Annual Statement of Compliance

Dear Mr. DiBacco:

Pursuant to the requirements of Chapter 62-213.440(3), Florida Administrative Code (F.A.C.), please find enclosed a signed Statement of Compliance – Title V Source for the calendar year 2013 reporting period for the Hardee Power Station (Facility ID 0490015).

Please contact Sheldron Johnson at (863) 357-3266, Ext. 227 if there are any questions regarding this submittal.

I certify that, based on the information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

Sincerely,

Tim Frost Plant Manager

Enclosure

cc: U.S. EPA Region 4

 Air, Pesticides & Toxics Management Division
 Air and EPCRA Enforcement Branch, Air Compliance Section
 61 Forsyth Street
 Atlanta, GA 30303

6695 North County Road 663, Bowling Green, FL 33834-6817 Phone (863) 375-3266 Fax (863) 375-2092



Department of Environmental Protection

Division of Air Resource Management

STATEMENT OF COMPLIANCE - TITLE V SOURCE

REASON FOR SUBMISSION (Check one to indicate why this statement of compliance is being submitted)

Annual Requirement	□ Transfer of Permit	Permanent Facility Shutdown
REPO	RTING PERIOD*	 REPORT DEADLINE**
January 1 through	December 31 of 2013 (year)	<u>March 1, 2014</u>

*The statement of compliance must cover all conditions that were in effect during the indicated reporting period, including any conditions that were added, deleted, or changed through permit revision.

**See Rule 62-213.440(3)(a)2., F.A.C.

Facility Owner/Company Name: Hardee Power Partners Limited

Site Name: Hardee Power Station Facility ID No. 0490015 County: Hardee

COMPLIANCE STATEMENT (Check only one of the following three options)

- A. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, and there were no reportable incidents of deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above.
- **B.** This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part; however, there were one or more reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each incident of deviation, the following information is included:
 - 1. Date of report previously submitted identifying the incident of deviation.
 - 2. Description of the incident.
- ✓ C. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, EXCEPT those identified in the pages attached to this report and any reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each item of noncompliance, the following information is included:
 - 1. Emissions unit identification number.
 - 2. Specific permit condition number (note whether the permit condition has been added, deleted, or changed during certification period).
 - 3. Description of the requirement of the permit condition.
 - 4. Basis for the determination of noncompliance (for monitored parameters, indicate whether monitoring was continuous, i.e., recorded at least every 15 minutes, or intermittent).
 - 5. Beginning and ending dates of periods of noncompliance.
 - Identification of the probable cause of noncompliance and description of corrective action or preventative measures implemented.
 - 7. Dates of any reports previously submitted identifying this incident of noncompliance.

For each incident of deviation, as described in paragraph B. above, the following information is included:

- 1. Date of report previously submitted identifying the incident of deviation.
- 2. Description of the incident.

Statement of Compliance Form – Title V Source Incorporated at Rule 62-213.900, F.A.C. DEP Form No. 62-213.900(2) Effective: August 1, 2011

STATEMENT OF COMPLIANCE - TITLE V SOURCE

RESPONSIBLE OFFICIAL CERTIFICATION

I, the undersigned, am a responsible official (Title V air permit application or responsible official notification form on file with the Department) of the Title V source for which this document is being submitted. With respect to all matters other than Acid Rain program requirements, I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

Amothy Front	2/28/14
(Signature of Title V Source Responsible Official)	(Date)

(Signature of Title V Source Responsible Officia

Name: Timothy Frost

Title: Plant Manager

DESIGNATED REPRESENTATIVE CERTIFICATION (only applicable to Acid Rain source)

I, the undersigned, 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.

2/28/14 (Date)

(Signature of Acid Rain Source Designated Representative)

Name: Timothy Frost

Title: Plant Manager

{Note: Attachments, if required, are created by a responsible official or designated representative, as appropriate, and should consist of the information specified and any supporting records. Additional information may also be attached by a responsible official or designated representative when elaboration is required for clarity. This report is to be submitted to both the compliance authority (DEP district or local air program) and the U.S. Environmental Protection Agency (EPA) (U.S. EPA Region 4, Air and EPCRA Enforcement Branch, 61 Forsyth Street, Atlanta GA 30303).}

HARDEE POWER PARTNERS LIMITED

Invenergy

Via Federal Express

February 28, 2014

Mr. Erin DiBacco Florida Department of Environmental Protection Southwest District Office 13051 North Telecom Parkway Temple Terrace, FL 33637-0926

Re: Hardee Power Partners Limited Hardee Power Station Title V Air Operation Permit No. 0490015-016-AV July – December 2013 Monitoring Report

Dear Mr. DiBacco:

Pursuant to the requirements of conditions RR1 and RR4 of Appendix RR, and Condition 15 of Appendix CAM, Hardee Power Partners Limited (HPPL) hereby submits the attached semi-annual monitoring report for the Hardee Power Station for the July – December 2013 monitoring period.

Please contact Sheldron Johnson at (863) 375-3266 ext. 227 if you have any questions regarding this information.

I certify that, based on the information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

Sincerely, Arm from

Tim Frost Plant Manager

Enclosure

cc: Florida Department of Environmental Protection Division of Air Resource Management Bureau of Air Regulation Title V Section 2600 Blair Stone Road, Mail Station # 5505 Tallahassee, Florida 32399-2400

> 6695 North County Road 663, Bowling Green, FL 33834-6817 Phone (863) 375-3266 Fax (863) 375-2092

Excursions (as defined in Table 1 of Appendix CAM) for the July – December 2013 reporting period:

CT1A (Emissions Unit 001):

Date: October 14, 2013, 23:37 - 23:44

Cause: Routine weekly fuel transfer from natural gas to distillate fuel oil.

Corrective Action: Unit was transferred back to natural gas and shut down.

CT1B (Emissions Unit 002):

None

CT2A (Emission Unit 003):

None

There were no incidents of monitor downtime for Emission Units -001, -002, or -003 during the July – December 2013 reporting period.

Deviations from Title V permit requirements during the July – December 2013 reporting period:

Condition A.15 of the Hardee Power Station's Title V permit requires annual emissions compliance testing during each federal fiscal year (October 1st - September 30th) in which a combustion turbine fired natural gas or fuel oil for more than 400 hours during the preceding federal fiscal year. In order to comply with this requirement, Hardee Power Partners (HPP) notified the FDEP of its intent to test unit CT-1B on June 12, 2013 while firing natural gas (letter attached). HPP subsequently notified the FDEP when the test date changed to June 11, 2013 (letter attached).

Before the aforementioned emissions compliance testing could be performed, a generator failure occurred that prevented Unit CT-1B from being tested. On September 23, 2013, HPP notified the FDEP that the generator was still undergoing repairs and that it would not be possible to test the unit prior to the end of the federal fiscal year (letter attached). Repairs have since been completed and the unit will be tested within the first 720 unit operating hours after resuming operations, as agreed upon with the FDEP.

HARDEE POWER PARTNERS LIMITED

Invenergy

Via Federal Express May 6, 2013

Mr. Erin Anthony DiBacco Florida Department of Environmental Protection Southwest District Office 13051 North Telecom Parkway Temple Terrace, FL 33637-0926

Re: Hardee Power Partners Limited (HPPL) Hardee Power Station Title V Air Operation Permit No. 0490015-016-AV Annual Emissions and RATA Test Notifications

Dear Mr. DiBacco,

Pursuant to the requirements of Condition TR7a(9) of the above-referenced Title V permit and of 40 CFR 75.61.a(5), HPPL hereby provides notification of the current annual emissions compliance (gas fuel only) and CEMS RATA testing schedule for the Hardee Power Station:

- June 11, 2013: CT-1A Emissions compliance and RATA testing
- June 12, 2013: CT-1B Emissions compliance and RATA testing

Please note the following:

- Units CT-1A and CT-1B were not fired for 400 or more hours on distillate fuel oil during the most recent fiscal year (October 1, 2011 through September 30, 2012); therefore, HPPL is not required to perform an annual emissions compliance test on fuel oil this year, pursuant to Condition A.15 of the above-referenced Title V permit.
- Unit CT-2A was not fired for 400 hours or more on natural gas or distillate fuel oil during the most recent federal fiscal year (October 1, 2011 through September 30, 2012); therefore, HPPL is not required to perform an annual emissions compliance test on the unit this year, pursuant to Condition A.15 of the above-referenced Title V permit. Additionally, Unit CT-2A is equipped with a 40 CFR 75, Appendix E monitoring system (PEMS); therefore, annual RATA testing is not applicable to the unit.
- Unit CT-2B was not fired for 400 hours or more on natural gas or distillate fuel oil during the most recent federal fiscal year (October 1, 2011 through September 30, 2012); therefore, HPPL is not required to perform an annual emissions compliance test on the unit this year, pursuant to Condition A.15 of the above-referenced Title V permit. Additionally, because Unit CT-2B has not operated for any "QA operating quarters" (as defined by 40 CFR 75) since RATA testing was last conducted in the 3rd Quarter of 2012, RATA testing will not need to be conducted in 2013. However, as required by Part 75, RATA testing will be conducted by no later than 8 calendar quarters since the last test (by the 3rd Quarter of 2014).

Please contact Matt Drennan at (863) 375-3266 ext. 227 if you have any questions regarding this information.

Sincerely,

Tim Frost Plant Manager

6695 North County Road 663, Bowling Green, FL 33834-6817 Phone (863) 375-3266 Fax (863) 375-2092 cc: USEPA – Region 4 Sam Nunn Atlanta Federal Center 61 Forsyth Street, SW Atlanta, Ga. 30303-8960

HARDEE POWER PARTNERS LIMITED

Invenergy

Via Federal Express

May 24, 2013

- USEPA Region 4 Sam Nunn Atlanta Federal Center 61 Forsyth Street, SW Atlanta, Ga. 30303-8960
- Re: Hardee Power Partners Limited (HPPL) Hardee Power Station Title V Air Operation Permit No. 0490015-016-AV Annual Emissions and RATA Test Notifications - Change of Schedule

To: USEAP - Region 4,

Pleased be advised that on May 6, 2013, Hardee Power Station made notification of Emissions Compliance and RATA testing for CT1A and CT1B. Our testing contractor has requested a schedule change. Please see the new schedule below:

Original Schedule

- June 11, 2013: CT-1A Emissions compliance and RATA testing
- June 12, 2013: CT-1B Emissions compliance and RATA testing

New Schedule

June 11, 2013: CT-1A and CT1B Emissions compliance and RATA testing

I am authorized to make this submission on behalf of the owners and operators of the source or 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.

Please contact Matt Drennan at (863) 375-3266 ext. 227 if you have any questions regarding this information.

Sincerely,

Tim Frost Plant Manager

6695 North County Road 663, Bowling Green, FL 33834-6817 Phone (863) 375-3266 Fax (863) 375-2092

HARDEE POWER PARTNERS LIMITED

Invenergy

September 23, 2013 Via Electronic Mail

Mr. Max Grondahl Environmental Specialist Florida Dept. of Environmental Protection, Southwest District 13051 North Telecom Parkway Temple Terrace, FL 33637-0926

Re: Hardee Power Partners Limited Hardee Power Station Title V Permit No. 0490015-016-AV Emissions Compliance Testing – Unit CT-1B

Dear Max:

The Hardee Power Station's (HPS') originally notified the FDEP that emissions compliance and RATA testing were scheduled to be performed on Unit CT-1B (Emission Unit 002) on June 11, 2013. However, before testing commenced, a generator failure occurred which has since prevented the unit from running.

Condition A.15 of the above-referenced Title V permit requires annual compliance tests to be conducted on CT-1B during each federal fiscal year (October 1^{st} – September 30^{th}) if the unit is fired for more than 400 hours in the preceding federal fiscal year. Unfortunately, due to the unit outage, which is still ongoing, it will not be possible to test CT-1B prior to the end of the federal fiscal year. Currently, generator repairs are not expected to be completed before December 2013. Once repairs have been completed and the unit is returned to service, HPS will contact you regarding the upcoming testing schedule.

We appreciate your assistance with this matter. If you have any questions regarding this information, please contact Matt Drennan at (863) 375-3266, ext. 227.

I am authorized to make this submission on behalf of the owners and operators of the source or 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.

Sincerely,

Tim Frost Plant Manager

Cc: Ilia Balcom – FDEP – Tampa Matt Drennan – HPS Frank Sarduy – Southshore Environmental

> 6695 North County Road 663, Bowling Green, FL 33834-6817 Phone (863) 375-4711 Fax (863) 375-2092

REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT

HARDEE POWER STATION REQUESTED CHANGES TO CURRENT TITLE V PERMIT

The following general and specific changes to the HPS Title V Permit Renewal No. 0490015-016-AV are requested:

1. Condition FW9

<u>Annual Emissions Fee Form and Fee</u>. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-Line Information Center at the following Internet web site: <u>http://www.dep.state.fl.us/air/emission/tyfee.htm</u>. [Rule 62-213.205, F.A.C.]

Change the first sentence to read "The annual Title V emissions fees are due by April 1st of each year." Also, edit language in RR1 and RR6 of Appendix RR of the permit to reflect the latest version of Rule 62-213.205, F.A.C.

2. Condition B.16

<u>Tests Prior to Permit Renewal</u>. During the federal fiscal year (October 1^{st} to September 30^{th}) prior to renewing the air operation permit, the permittee shall also conduct individual performance tests for VOC emissions while firing natural gas and low sulfur distillate oil. [Rule 62-297.310(7)(a)3., F.A.C.]

Consistent with Rule 62-297.310(7)(a)3, F.A.C., testing of VOC is only required once during the 5-year period prior to permit renewal. Propose to revise the first sentence of the condition to read "Prior to renewing the air operation permit, the permittee shall also conduct individual performance tests for VOC emissions while firing natural gas and low sulfur distillate oil."

ACID RAIN PART

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: \Box New

Revised Renewal

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Hardee Power Station	Florida	50949
Plant name	State	ORIS/Plant Code

STEP 2 Enter the unit ID#	а	b	с	d	e
for every Acid Rain unit at the Acid Rain source in column "a."	Unit ID#	SO₂ Opt-in Unit? (Yes or No)	Unit will hold allowanc- es in accordance with 40 CER	New or SO₂ Opt-in Units Commence Operation Date	New or SO₂ Opt-in Units Monitor Certification Deadline
If unit a SO ₂ Opt-in unit, enter "yes" in			72.9(c)(1)	epolation Bate	Doudinito
column "b".	СТ2В	No	Yes	N/A	N/A
For new units or SO ₂ Opt-in units.			Yes		
enter the requested			Yes		
umns "d" and "e."			Yes		
			Yes		

Plant Name (from STEP 1)

STEP 3

Read the

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 DEP 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 DEP; 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.

(4) For applications including a SO₂ Opt-in unit, a monitoring plan for each SO₂ Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO₂ Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

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)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), 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) 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 or 72.8 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 DEP:

(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,

Hardee Power Station

Plant Name (from STEP 1)

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 or 72.8, 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_x 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 (7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 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 72.7or 72.8 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.

STEP 4 For SO₂ Opt-in units only.	f	g	h (not required for renewal application)
In column "f" enter the unit ID# for every SO ₂ Opt-in unit identified in	Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application
STEP 2.			
For column "g"			
describe the com- bustion unit and			
attach information and diagrams on			
unit's configura- tion.			
In column "h" en-			
ter the hours.			

Hardee Power Station Plant Name (from STEP 1)

STEP 5	I	J	ĸ	1		m	n
For SO ₂ Opt-in units only.						Current	Current
(Not required for SO ₂ Opt-in renewal applications.)	Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20	Actual SO ₂ Emissions Rate under 40 CFR 74.22	Allowable SO ₂ Emis Rate un 40 CFR 7	1985 sions ider 74.23	Allowable SO ₂ Emissions Rate under 40 CFR 74.24	Promulgated SO ₂ Emissions Rate under 40 CFR 74.25
In column "i" enter the unit ID# for		(mmBtu)	(Ibs/mmBtu)	(lbs/mm	Btu)	(lbs/mmBtu)	(Ibs/mmBtu)
every SO ₂ Opt-in unit identified in column "a" (and in column "f").							
For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25							
and attach all sup- porting documen- tation required by 40 CFR 74.20- 74 25							
STEP 6	A. If the combustio thermal energy	n source seeks to qualify for plan as provided in 40 CFR	or a transfer of allow 74.47 for combusti	vances from the	e replace ist be atta	ment of thermal ene ached.	rgy, a
For SO ₂ Opt-in units only.	 B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74. C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14. D. Attach a complete compliance plan for SO₂ under 40 CFR 72.40. 						
Attach additional requirements, certify and sign.	 E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b). F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way." 						
	Signature				Date		
STEP 7	Certification (for designated representative or alternate designated representative only)						
Read the certification statement; provide name, title, owner	ad 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 frue, accurate, and complete. I am ar there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.					information itaining the lete. I am aware that , including the	
company name, phone, and e-mail address; sign, and	Ralph E. Randal	1	1	Regional Plan Title	t Directo	r	
uale.	Hardee Power P Owner Company N	artners Limited ame					
	(863) 375-3266 Phone		rrandall@inven E-mail address	ergyllc.com			
)	Signature	Jul G Ray	whall Date 5-15-14				

1

CAIR PART

Clean Air Interstate Rule (CAIR) Part

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

This submission is: 🔲 New

Revised Renewal

STEP 1

Identify the source by plant name and ORIS or EIA plant code

Plant Name: Hardee Power Station	State: Florida	ORIS or EIA Plant Code:
		50949

STEP 2

In column "a" enter the unit ID# for every CAIR unit at the CAIR source.

In columns "b," "c," and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).

For new units, enter the requested information in columns "e" and "f.

	а	b	с	d	e	f
he IR ce.	Unit ID#	Unit will hold nitrogen oxides (NO _x) allowances in accordance with 40 CFR 96.106(c)(1)	Unit will hold sulfur diox- ide (SO ₂) allow- ances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO _x Ozone Season allow- ances in accordance with 40 CFR 96.306(c)(1)	New Units Expected Commence Com- mercial Operation Date	New Units Expected Monitor Certification Deadline
(s)	CT1A	x	x	x	N/A	N/A
у	CT1B	Х	Х	Х	N/A	N/A
	CT2A	x	x	x	N/A	N/A
:he n	CT2B	x	х	х	N/A	N/A
f.						

Plant Name (from STEP 1)

STEP 3

Read the standard requirements.

CAIR NO_X ANNUAL TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO_x source and each CAIR NO_x unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 (ii) [Reserved];
- (2) The owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

The owners and operators, and the CAIR designated representative, of each CAIR NO_x source and each CAIR NO_x unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
 The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO_x source with the following CAIR NO_x Emissions Requirements.

NO_X Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_X source and each CAIR NO_X unit at the source shall hold, in the source's compliance account, CAIR NO_X allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO_X emissions for the control period from all CAIR NO_X units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.

(2) A CAIR NO_x unit shall be subject to the requirements under paragraph (1) of the NO_x Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
 (3) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Requirements, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.

(4) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.

(5) A CAIR NO_x allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_X allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x unit.

Excess Emissions Requirements.

If a CAIR NO_x source emits NO_x during any control period in excess of the CAIR NO_x emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_X source and each CAIR NO_X 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 before the end of 5 years, in writing by the DEP or the Administrator.

(i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO_x unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; 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 under 40 CFR 96.113 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 ČFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, 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 CAIR NO_X Annual Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program.

(2) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

Plant Name (from STEP 1)

STEP 3, Continued

Liability.

- (1) Each CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program.
- (2) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x source or the CAIR designated representative of a CAIR
 - NO_x source shall also apply to the owners and operators of such source and of the CAIR NO_x units at the source.

(3) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x unit or the CAIR designated representative of a CAIR NO_x unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source or CAIR NO_x unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR SO₂ TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall: (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and (ii) [Reserved];
- (2) The owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR SO₂ source and each SO₂ CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96 ,Subpart HHH, and Rule 62-296.470, F.A.C. (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO₂ source with the following CAIR SO₂ Emission Requirements.

SO₂ Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO2 source and each CAIR SO2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO₂ allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO2 units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.

(2) A CAIR SO₂ unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.

(3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO₂ Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.

(4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.

(5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO2 Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR SO₂ allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO2 allowance to or from a CAIR SO₂ unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO₂ unit.

Excess Emissions Requirements.

If a CAIR SO₂ source emits SO₂ during any control period in excess of the CAIR SO₂ emissions limitation, then: (1) The owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

Plant Name (from STEP 1)

STEP 3, Continued

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ 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 before the end of 5 years, in writing by the Department or the Administrator.

(i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO₂ unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; 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 under 40 CFR 96.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, 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 CAIR SO_2 Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR SO₂ Trading Program.

(2) The CAIR designated representative of a CAIR SO₂ source and each CAIR SO₂ unit at the source shall submit the reports required under the CAIR SO₂ Trading Program, including those under 40 CFR Part 96, Subpart HHH.

Liability.

(1) Each CAIR SO₂ source and each CAIR SO₂ unit shall meet the requirements of the CAIR SO₂ Trading Program.

(2) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ source or the CAIR designated representative of a CAIR SO₂ source shall also apply to the owners and operators of such source and of the CAIR SO₂ units at the source.

(3) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ unit or the CAIR designated representative of a CAIR SO₂ unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO₂ Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO₂ source or CAIR SO₂ unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR NO_x OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

- The CAIR designated representative of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall:
 (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved];

(2) The owners and operators of each CAIR NO_X Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO_X Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO_X Ozone Season source with the following CAIR NO_X Ozone Season Emissions Requirements.

NO_x Ozone Season Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.
(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO, Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1),(2), or (3) and for each control period thereafter.

(3) A CAIR NO_X Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_X Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO_X Ozone Season allowance was allocated.

(4) CAIR NO_X Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_X Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.

(5) A CAIR NO_X Ozone Season allowance is a limited authorization to emit one ton of NO_X in accordance with the CAIR NO_X Ozone Season Trading Program. No provision of the CAIR NO_X Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
 (6) A CAIR NO_X Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO_X Ozone Season allowance to or from a CAIR NO_X Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_X Ozone Season unit.

Plant Name (from STEP 1)

STEP 3, Continued

Excess Emissions Requirements.

If a CAIR NO_X Ozone Season source emits NO_X during any control period in excess of the CAIR NO_X Ozone Season emissions limitation, then: (1) The owners and operators of the source and each CAIR NO_X Ozone Season unit at the source shall surrender the CAIR NO_X Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season 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 before the end of 5 years, in writing by the DEP or the Administrator.

(i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO_X Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; 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 processorial under 40 CFR 96.213 charging the CAIR designated representation; provided that the submission of a new certificate or processorial under 40 CFR 96.213 charging the CAIR designated representation; provided because of the submission of a new certificate or processorial under 40 CFR 96.213 charging the CAIR designated representation; provided because of the submission of a new certificate or processorial under 40 CFR 96.213 charging the CAIR designated representation; provided because of the submission of a new certificate of representation under 40 CFR 96.213 charging the CAIR designated representation; provided because of the submission of a new certificate of representation under 40 CFR 96.213 charging the CAIR designated representation; provided that the submission of a new certificate of representation under 40 CFR 96.213 charging the CAIR designated representation; provided that the submission of a new certificate of representation under 40 CFR 96.213 charging the CAIR designated representation; provided that the submission of a new certificate of new certificat

the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative. (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, of shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_X Ozone Season Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_X Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_X Ozone Season Trading Program.

(2) The CAIR designated representative of a CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit at the source shall submit the reports required under the CAIR NO_X Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

(1) Each CAIR NO_X Ozone Season source and each CAIR NO_X Ozone Season unit shall meet the requirements of the CAIR NO_X Ozone Season Trading Program.

(2) Any provision of the CAIR NO_X Ozone Season Trading Program that applies to a CAIR NO_X Ozone Season source or the CAIR designated representative of a CAIR NO_X Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_X Ozone Season units at the source.

(3) Any provision of the CAIR NO_X Ozone Season Trading Program that applies to a CAIR NO_X Ozone Season unit or the CAIR designated representative of a CAIR NO_X Ozone Season unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_X Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_X Ozone Season source or CAIR NO_X Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

STEP 4

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR 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.

Ralph E. Randall Name	Regional Pla Title	Regional Plant Director Title		
Hardee Power Partners Limited Owner Company Name				
(863) 375-3266 Phone	rrandall@invenergyllc. E-mail address	.com		
Signature Page 5 ford	all	Date 5-15-14		

FUEL SPECIFICATIONS

HARDEE POWER STATION FUEL ANALYSES OR SPECIFICATIONS

A. No. 2 Fuel Oil

Specification	Units	Value
Heat content (nominal)	BTU/gal (HHV)	138,000
Sulfur content	Weight percent	0.05
Ash content	Weight percent	0.1

B. Natural Gas (Typical Composition)

Component	Mole Percent (by volume)
Gas Composition	
Hexane+ Propane I-butane N-butane Pentane Nitrogen Methane CO_2 Ethane	$\begin{array}{c} 0.018\\ 0.190\\ 0.010\\ 0.007\\ 0.002\\ 0.527\\ 96.195\\ 0.673\\ 2.379\end{array}$
Other Characteristics	
Heat content (HHV) Real specific gravity Sulfur content	1,050 Btu/ft ³ at 14.73 psia, dry 0.5776 0.5 gr/100 scf

Note: $Btu/ft^3 = British$ thermal units per cubic foot. psia = pounds per square inch absolute. gr/100 scf = grains per 100 standard cubic foot.

Y:\GDP-14\HPP\TTLVRNW.DOCX-051414

PROCEDURES FOR STARTUP AND SHUTDOWN

HARDEE POWER STATION PROCEDURES FOR STARTUP AND SHUTDOWN

A. STARTUP PROCEDURES

Unit is "walked down" by a roving operator to ensure that all systems are in a normal and safe-to-start-up condition.

Control room operator checks for the type and that start-up functions are in the desired mode.

Control room operator initiates a start on the unit from the Bailey Distributed Control and Information System (DCIS).

Roving operator then verifies the following sequence of automatic events:

- Turbine starting motor engages, which will take the combustion turbine (CT) to approximately 800 revolutions per minute (rpm) for a purge cycle, followed by a decrease to 360 rpm for fuel and ignitor operations.
- All logical permissives are met, the fuel/air ratio is correct, and the combustors are ignited as indicated by all four flame sensors seeing flame.
- Ignitors retract at approximately 1,200 rpm.
- Starting motor assists in the acceleration of the CT to 60-percent (2,160) rpm and then disengages.
- CT continues to accelerate under its own power toward 100-percent (3,600) rpm for synchronization of the generator to the grid. The generator field is flashed and the generator excited at 95-percent rpm.
- The generator has synchronized to the grid, the generator breaker closes, and the generator output is immediately increased to 5 megawatts (MW).
- At approximately 18 megawatts CT output, the water injection system will start up to control nitrogen oxides (NO_x) by injecting demineralized water into the combustors.

If combined cycle operation is desired, the control room operator will open the diverter dampers to apply heat to the heat recovery steam generator (HRSG) and raise CT megawatt output to the level required to generate sufficient steam to roll the steam turbine.

HARDEE POWER STATION PROCEDURES FOR STARTUP AND SHUTDOWN

B. SHUTDOWN PROCEDURES

During combined cycle operations, the control room operator decreases load to the point where the diverter damper can be closed, uncoupling the CT exhaust from the HRSG.

To shut down the CT, the control room operator will select "STOP" on the DCIS, and the CT will ramp down at a maximum ramp rate of 6 MW per minute to -1.5 MW. At this point, the generator breaker is opened and the CT begins a fired shutdown for approximately 60 seconds.

When the fired shutdown is complete, the fuel valve closes, and the CT coasts down in speed until it goes on cool down at approximately 45 rpm.

The roving operator will do a post-run "walk down" to check condition of the systems and ensure that the ignitors have returned to the start-up position.

The CT will remain on cool down until the conditions of 14 hours elapsed time since shutdown and highest wheel space temperature has cooled to 150 degrees or less are met. At this point, the roving operator will take the CT off cooldown and rpm will decrease to zero.

COMPLIANCE ASSURANCE MONITORING

HARDEE POWER STATION SAMPLE CURVE COMPLIANCE ASSURANCE MONITORING (Note: May not reflect current water injection curves.)

The following Compliance Assurance Monitoring (CAM) Plan is applicable to CT-1A, CT-1B, and CT-2A.

Table 1. Monitoring Approach

Criteria	Data
I. General Criteria	
A. Indicator	Water-to-fuel ratio.
B. Measurement Approach	Continuous Monitoring System measuring water injection rate, fuel consumption, and water-to-fuel ratio.
C. Indicator Range	An excursion is defined as any 4 consecutive 1-minute aver- ages that the water-to-fuel ratio falls below the level calculat- ed by the Mark 6e based on algorithms programmed into the system to account for varying ambient conditions relevant to proper control. These calculations incorporate the water in- jection curves shown in figures 1 - 6 (typical target values for different load percentages are shown in Table 2), below. If there is a problem with fuel or water flow that causes the ac- tual ratio to fall below the target during any 4 consecutive 1- minute averages, an alarm notifies the control room staff of the problem. Since the data is monitored in 4 consecutive 1- minute averages, the alarms allow the operating staff to investi- gate the cause and take corrective action prior to having a non-compliant situation.
II. Performance Criteria	
A. Data Representativeness	The Mark 6e combustion turbine control system continuously monitors the fuel flow rate and sends a signal to the water flow control valve to adjust the flow to meet the target ratio. The target ratio is calculated by the Mark 6e based on algo- rithms programmed into the system to account for varying ambient conditions relevant to proper control.
B. Verification of Operational Status	Annual compliance testing; and, reestablishment of the water- to-fuel ratio, if indicated by a failed compliance test.
C. QA/QC Practices and Criteria	Operate and maintain the Mark 6e combustion turbine control system according to manufacturer's specifications. All meter- ing equipment, including transmitters, are calibrated annually and meet or exceed the minimum regulatory requirement of 5% accuracy.
D. Monitoring Frequency	Continuous

HARDEE POWER STATION SAMPLE CURVE COMPLIANCE ASSURANCE MONITORING (Note: May not reflect current water injection curves.)

Table 2. Monitoring Approach (continued)

Criteria	Data
E. Data Collection Procedures	The Mark 6e combustion turbine control system continuously monitors the fuel flow rate and sends a signal to the water flow control valve to adjust the flow to meet the target ratio. The target ratio is calculated by the Mark IV based on algo- rithms programmed into the system to account for varying ambient conditions relevant to proper control.
D. Averaging Period	1 minute.

Table 3. Typical Target Values for Water-to-Fuel Ratio

Load	Water-to-Fuel Ratio Target Value When Firing Natural Gas			Water-to-Fuel Ratio Target Value When Firing Distillate Fuel Oil		
(percent)	CT-1A	CT-1B	CT-2A	CT-1A	CT-1B	CT-2A
50	0.45	0.43	0.31	0.55	0.36	0.37
75	0.58	0.56	0.50	0.60	0.40	0.40
90	0.66	0.64	0.59	0.65	0.52	0.55
100	0.71	0.69	0.69	0.69	0.63	0.68










ATTACHMENT M

HARDEE POWER STATION SAMPLE CURVE COMPLIANCE ASSURANCE MONITORING (Note: May not reflect current water injection curves.)



ATTACHMENT N

ALTERNATE METHODS OF OPERATION

ATTACHMENT N

HARDEE POWER STATION ALTERNATIVE METHODS OF OPERATION

Method Number		Fuel Type	Maximum Fuel Sulfur Content	Heat Input Range, LHV (MMBtu/hr)	Maximum Operating Hours hr/day day/wk hr/yr			
A. CT-1A, CT-1B, CT-2A (EUs 001, 002, and 003) – per CT								
	1 2	Natural gas No. 2 fuel oil	2.0 gr s/100 ft ³ 0.5 weight %	0 to 1,268.4* 0 to 1,312.3*	24 24	7 7	8,760 8,760	
B.	CT-2B (EU	CT-2B (EU 005)						
	1 2	Natural gas No. 2 fuel oil	2.0 gr s/100 ft ³ 0.5 weight %	0 to 950† 0 to 1,060†	24 24	7 7	8,760 8,760	

*Heat input rates are at CT base load and 32°F ambient temperature operating conditions.

†Heat input rates are at CT base load and 59°F ambient temperature operating conditions.