HINES ENERGY COMPLEX
TITLE V AIR OPERATION PERMIT
RENEWAL APPLICATION

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AIR REGULATION

Prepared for:

Progress Energy

St. Petersburg, Florida

Prepared by:

ECT

Environmental Consulting & Technology, Inc.

3701 Northwest 98th Street
Gainesville, Florida 32606

ECT No. 100767-0100

May 2011

ECT
Environmental Consulting & Technology, Inc.

May 19, 2011

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Ms. Trina Vielhauer
Chief, Bureau of Air Regulation
Florida Department of Environmental Protection
Division of Air Resource Management
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Re: Progress Energy Florida (PEF)
Hines Energy Complex
Title V Air Operation Permit Renewal Application
Permit No. 1050234-017-AV

Project No.: 1050234-018-AC
1050234-019-AV

Dear Ms. Vielhauer:

On behalf of PEF, two copies of an application package to renew the PEF Hines Energy Complex Title V Air Operation Permit No. 1050234-017-AV are enclosed for Florida Department of Environmental Protection (FDEP) review. Pursuant to the requirements of Section 62-213.400, Florida Administrative Code (F.A.C.), the application package contains FDEP's Application for Air Permit – Long Form and the required supplemental facility and emission unit information.

Please contact Chris Bradley at 727/820-5962 or via e-mail at Chris.Bradley@pgnmail.com if you have any questions regarding this application.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.

Thomas W. Davis

Thomas W. Davis, P.E.
Vice President

cc: Pamala Vazquez (w/enc)
FDEP Southwest District

Enclosures

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3701 Northwest
98th Street
Gainesville, FL
32606

(352)
332-0444

FAX (352)
332-6722

INTRODUCTION

The Progress Energy Florida, Inc. (PEF), Hines Energy Complex is an existing electric generation facility located southwest of Bartow in Polk County, Florida. The Hines Energy Complex emission units include a nominal 500-megawatt (MW) combined-cycle unit (Power Block 1), three nominal 530-MW combined-cycle units (Power Blocks 2, 3, and 4), an auxiliary steam boiler, ancillary support equipment, and a variety of unregulated and insignificant emission units and activities.

Power Block 1 consists of two Westinghouse Model 501FC dual-fuel, combustion turbine generators (CTGs), two unfired heat recovery steam generators (HRSGs), and one common steam turbine generator (STG). The two CTG/HRSG units are designated as Units 1A (Emissions Unit [EU] ID No. 001) and 1B (EU ID No. 002). Each CTG has a nominal electrical generating capacity of 170 MW. The common steam turbine has a nominal electrical generating capacity of 160 MW, for a total Power Block 1 nominal electrical generating capacity of 500 MW.

Power Blocks 2 and 3 each consist of two Westinghouse Model 501FD dual-fuel CTGs, two unfired HRSGs, and one common STG. The Power Block 2 CTG/HRSG units are designated as Units 2A (EU ID No. 014) and 2B (EU ID No. 015). The Power Block 3 CTG/HRSG units are designated as Units 3A (EU ID No. 016) and 3B (EU ID No. 017). Each CTG has a nominal electrical generating capacity of 170 MW. The common steam turbines each have a nominal electrical generating capacity of 190 MW, for a total nominal electrical generating capacity of 530 MW for each power block.

Power Block 4 consists of two General Electric Model 7FA dual-fuel CTGs, two unfired HRSGs, and one common STG. The two CTG/HRSG units are designated as Units 4A (EU ID No. 018) and 4B (EU ID No. 019). Each CTG has a nominal electrical generating capacity of 170 MW. The common steam turbine has a nominal electrical generating capacity of 190 MW, for a total Power Block 4 nominal electrical generating capacity of 500 MW.

The Hines Energy Complex CTGs are fired primarily with pipeline-quality natural gas. Low sulfur distillate fuel oil containing no more than 0.05 weight percent sulfur serves as a backup fuel source. The Hines Energy Complex CTGs are equipped with dry low-nitrogen oxides (NO_x) (DLN) combustors that are used when firing natural gas. The CTGs employ wet injection when firing No. 2 fuel oil to reduce NO_x emissions. In addition, the HRSGs are equipped with selective catalytic reduction (SCR) control systems to further reduce NO_x emissions.

The auxiliary steam boiler (EU ID No. 003) is a natural gas-fired unit with a design heat input of 99 million British thermal units per hour (MMBtu/hr). The auxiliary boiler is used to provide steam for CTG HRSG startups.

Operation of the Hines Energy Complex is currently authorized by Florida Department of Environmental Protection (FDEP) Title V Air Operation Permit Revision No. 1050234-017-AV, issued with a revision effective date of January 28, 2009, and an expiration date of December 31, 2011.

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 the Hines Energy Complex, which has a Title V air operation permit expiration date of December 31, 2011, this regulatory deadline results in the requirement to submit a Title V air operation permit renewal application no later than May 20, 2011.

This application package, consisting of FDEP's Application for Air Permit – Long Form, effective March 11, 2010, and the required supplemental facility and emission unit information, constitutes PEF's Title V permit renewal application for the Hines Energy Complex and is submitted to satisfy the requirements of Section 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 Plans.
- 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.
- Attachment H—Requested Changes to Current Title V Air Operation Permit.
- Attachment I—Acid Rain Part.
- Attachment J—Clean Air Interstate Rule Part.
- Attachment K—Fuel Specifications.
- Attachment L—Procedures for Startup.
- Attachment M—Alternate Methods of Operation.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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).

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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: **Florida Power Corporation dba Progress Energy Florida, Inc.**	
2. Site Name: **Hines Energy Complex**	
3. Facility Identification Number: **1050234**	
4. Facility Location... Street Address or Other Locator: **7700 County Road 555** City: **Bartow** County: **Polk** Zip Code: **33830**	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☒ Yes ☐ No

Application Contact

1. Application Contact Name: **Chris Bradley** **Senior Environmental Specialist**
2. Application Contact Mailing Address Organization/Firm: **Florida Power Corporation dba Progress Energy Florida, Inc.** Street Address: **299 First Avenue North, PEF-903** City: **St. Petersburg** State: **Florida** Zip Code: **33701-3308**
3. Application Contact Telephone Numbers... Telephone: **(727) 820-5962** ext. Fax: **(727) 820-5229**
4. Application Contact Email Address: **Chris.Bradley@pgnmail.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 5-20-11	3. PSD Number (if applicable):
2. Project Number(s): 1050234-018-AC 1050234-019-AV	4. Siting Number (if applicable):

APPLICATION INFORMATION

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)

☐ Air construction permit and Title V permit revision, incorporating the proposed project.

☒ 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 concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

☒ 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 Progress Energy Florida, Inc. (PEF) Hines Energy Complex is currently authorized by Title V Air Operation Permit Revision No. 1050234-017-AV. This permit was issued with a revision effective date of January 28, 2009 and an expiration date of December 31, 2011.

In accordance with Rule 62-213.420(1)(a)2., 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 Hines Energy Complex, this regulatory deadline requires the submittal of a Title V permit renewal application no later than May 20, 2011. This application and supporting documents constitutes PEF's request for renewal of the Hines Energy Complex Title V Air Operation Permit Revision No. 1050234-017-AV.

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

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
001	Power Block 1, Westinghouse 501 FC CT1A (170 MW gas turbine with unfired HRSG)	N/A	N/A
002	Power Block 1, Westinghouse 501 FC CT1B (170 MW gas turbine with unfired HRSG)	N/A	N/A
003	Auxiliary Steam Boiler	N/A	N/A
014	Power Block 2, Westinghouse 501 FD CT2A (170 MW gas turbine with unfired HRSG)	N/A	N/A
015	Power Block 2, Westinghouse 501 FD CT2B (170 MW gas turbine with unfired HRSG)	N/A	N/A
016	Power Block 3, Westinghouse 501 FD CT3A (170 MW gas turbine with unfired HRSG)	N/A	N/A
017	Power Block 3, Westinghouse 501 FD CT3B (170 MW gas turbine with unfired HRSG)	N/A	N/A
018	Power Block 4, General Electric 7FA CT4A (170 MW gas turbine with unfired HRSG)	N/A	N/A
019	Power Block 4, General Electric 7FA CT4B (170 MW gas turbine with unfired HRSG)	N/A	N/A
7775047	Relocatable Diesel Generators	N/A	N/A

Application Processing Fee

Check one: ☐ Attached - Amount: $______________ ☒ Not Applicable

Note: The PEF Hines Energy Complex has been issued Final Title V Operation Permit Number 1050234-017-AV. An application processing fee is not required pursuant to Rule 62-213.205(4), F.A.C.

APPLICATION INFORMATION

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 INFORMATION

Application Responsible Official Certification

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

1.	Application Responsible Official Name: **Anthony Salvarezza, Plant Manager**
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, CAIR source, or Hg Budget source.
3.	Application Responsible Official Mailing Address... Organization/Firm: **Florida Power Corporation dba Progress Energy Florida, Inc.** Street Address: **7700 County Road 555** City: **Bartow** State: **FL** Zip Code: **33830**
4.	Application Responsible Official Telephone Numbers... Telephone: Telephone: **(863) 519-6103** ext. Fax: **(863) 519-6110**
5.	Application Responsible Official E-mail Address: **anthony.salvarezza@pgnmail.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.* Signature 5/17/11 Date

APPLICATION INFORMATION

Professional Engineer Certification

1.	Professional Engineer Name: **Thomas W. Davis** Registration Number: **36777**
2.	Professional Engineer Mailing Address... Organization/Firm: **Environmental Consulting & Technology, Inc.** Street Address: **3701 Northwest 98th Street** City: **Gainesville** State: **Florida** Zip Code: **32606-5004**
3.	Professional Engineer Telephone Numbers... Telephone:**(352) 248 – 3351** ext. Fax: **(352) 332 - 6722**
4.	Professional Engineer Email Address: **tdavis@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 ☐, 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 ☐, 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 ☒, 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.

THOMAS W. DAVIS LICENSE No 36777 STATE OF FLORIDA PROFESSIONAL ENGINEER

[signature]
Signature

5/19/2011
Date

(seal)

*Attach any exception to certification statement.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone **17** East (km) **414.2** (N**A**D **83**) North (km) **3,074.2**		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) **27°47"21"** Longitude (DD/MM/SS) **81°52"16"**	
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **49**	6. Facility SIC(s): **4911**
7. Facility Comment : **Coordinates are at a location between Power Blocks 1 & 2 and Power Blocks 3 & 4.**			

Facility Contact

1. Facility Contact Name: **Tommy W. Oneal, EHS Specialist**
2. Facility Contact Mailing Address Organization/Firm: **Progress Energy Florida** Street Address: **7700 County Road 555, HE-44** City: **Bartow** State: **FL** Zip Code: **33830**
3. Facility Contact Telephone Numbers: Telephone: **(863) 519-6119** ext. Fax: **(863) 519-6110**
4. Facility Contact Email Address: **tommy.oneal@pgnmail.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. Facility 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. ☒ Title V Source	
4. ☒ Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. ☐ Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. ☒ Major Source of Hazardous Air Pollutants (HAPs)	
7. ☐ Synthetic Minor Source of HAPs	
8. ☒ One or More Emissions Units Subject to NSPS (40 CFR 60)	
9. ☐ One or More Emissions Units Subject to Emission Guidelines (40 CFR 60)	
10. ☐ One or More Emissions Units Subject to NESHAP (40 CFR 61 or Part 63)	
11. ☐ Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	

12. Facility Regulatory Classifications Comment:

The NSPS for Stationary Gas Turbines, 40 CFR Part 60 Subpart GG, applies to each of the Hines Energy Complex CTGs.

The NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60 Subpart Dc, applies to the auxiliary steam boiler.

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
Particulate Matter – PM_{10}	**A**	**N**
Sulfur Dioxide – SO_2	**A**	**N**
Nitrogen Oxide - NO_x	**A**	**N**
Carbon Monoxide – CO	**A**	**N**
Volatile Organic Compounds – VOC	**A**	**N**
Sulfuric Acid Mist - SAM	**B**	**N**
Formaldehyde – H095	**A**	**N**
Hydrochloric Acid – H107	**A**	**N**
Total Hazardous Air Pollutants – HAPS	**A**	**N**

FACILITY INFORMATION

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps NOT APPLICABLE

1. Pollutant Subject to Emissions Cap	2. Facility-Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

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: **Attach. B** ☐ 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: **Attach. C** ☐ 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: **Attach. D** ☐ Previously Submitted, Date:__________

Additional 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)

NOT APPLICABLE

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units: ☐ Attached, Document ID:__________ ☐ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities: (Required for initial/renewal applications only) ☒ Attached, Document ID: **Attach. E** ☐ Not Applicable (revision application)
2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought) ☒ Attached, Document ID: **Attach. F** ☐ Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan: (Required for all initial/revision/renewal applications) ☒ Attached, Document ID: **Attach. G** Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only) ☐ Attached, Document ID:__________ ☒ Equipment/Activities Onsite but Not Required to be Individually Listed ☐ Not Applicable
5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only) ☐ Attached, Document ID:__________ ☒ Not Applicable
6. Requested Changes to Current Title V Air Operation Permit: ☒ Attached, Document ID: **Attach. H** ☐ Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1.	Acid Rain Program Forms: Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)): ☒ Attached, Document ID: **Attach. I** ☐ 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: **Attach. J** ☐ Previously Submitted, Date:______ ☐ Not Applicable (not a CAIR source)

Additional Requirements Comment

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
   Power Block 1; CT1A
   Westinghouse Model 501FC dual-fuel, combustion turbine generator (CTG), unfired heat recovery steam generator (HRSG), and one common steam turbine generator (STG) shared with CT1B.

3. Emissions Unit Identification Number: **001**

4. Emissions Unit Status Code: **A**	5. Commence Construction Date: **N/A**	6. Initial Startup Date: **N/A**	7. Emissions Unit Major Group SIC Code: **49**

8. Federal Program Applicability: (Check all that apply)
   ☒ Acid Rain Unit
   ☒ CAIR Unit

9. Package Unit:
   Manufacturer: **Westinghouse** Model Number: **501FC**

10. Generator Nameplate Rating: **170 MW (nominal)**

11. Emissions Unit Comment:

    CT1A and CT1B share a common 160 MW STG.

Emissions Unit Control Equipment/Method: Control **1** of **3**

1. Control Equipment/Method Description: **Dry Low NO_x (DLN) combustion – natural gas firing**
2. Control Device or Method Code: **025**

Emissions Unit Control Equipment/Method: Control **2** of **3**

1. Control Equipment/Method Description: **Wet Injection – distillate oil firing**
2. Control Device or Method Code: **028**

Emissions Unit Control Equipment/Method: Control **3** of **3**

1. Control Equipment/Method Description: **Selective Catalytic Reduction (SCR) – natural gas firing/ distillate oil firing**
2. Control Device or Method Code: **139**

Emissions Unit Control Equipment/Method: Control __ of __

1. Control Equipment/Method Description:
2. Control Device or Method Code:

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: **2,020** million Btu/hr
4.	Maximum Incineration Rate: pounds/hr Tons/day
5.	Requested Maximum Operating Schedule: hours/day days/week weeks/year **8,760** hours/year
6.	Operating Capacity/Schedule Comment: **Higher heating value (HHV) heat input shown is for distillate fuel oil firing at 59°F CTG inlet temperature and 100% load. For natural gas firing, HHV heat input is 1,915 MMBtu/hr at 59°F CTG inlet temperature and 100% load.** **Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined.**

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **CT1A**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **N/A**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **N/A**		
5. Discharge Type Code: **V**	6. Stack Height: **125** feet	7. Exit Diameter: **19.0** feet
8. Exit Temperature: **190**°F	9. Actual Volumetric Flow Rate: **1,009,500** acfm	10. Water Vapor: **N/A** %
11. Maximum Dry Standard Flow Rate: **N/A** dscfm	12. Nonstack Emission Point Height: **N/A** feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude… Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

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

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines, Electric Generation, Natural Gas, Turbine**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **1.877**	5. Maximum Annual Rate: **16,447**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **1,020 (HHV), nominal**
10. Segment Comment: **Fields 4 and 5 maximum rates based on 1,915 MMBtu/hr at 59°F.**		

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

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines, Electric Generation, Distillate Oil (No. 2), Turbine**		
2. Source Classification Code (SCC): **2-01-001-01**	3. SCC Units: **Thousand Gallons**	
4. Maximum Hourly Rate: **14.638**	5. Maximum Annual Rate: **7,319**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash: **0.1**	9. Million Btu per SCC Unit: **138 (HHV), nominal**
10. Segment Comment: **Fields 4 and 5 maximum rates based on 2,020 MMBtu/hr at 59°F.** **Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined.**		

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
PM/PM_{10}			**EL**
SO_2			**EL**
NO_x	**025, 028**	**139**	**EL**
CO			**EL**
VOC			**EL**
Formaldehyde H095			**NS**
Hydrochloric Acid H106			**NS**
Total 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.

<u>Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions</u>

1. Pollutant Emitted: **PM/PM10**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **44.8** lb/hour **75.6** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. A.5**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,260 hours per year of natural gas-firing at 15.6 lb/hr, and 500 hours per year of distillate fuel oil-firing at 44.8 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined. This limit is approximately equivalent to 500 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **15.6** lb/hour **68.3** tons/year
5. Method of Compliance: **N/A**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 59°F CTG inlet; tpy for 8,760 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **44.8** lb/hour **11.2** tons/year
5. Method of Compliance: **EPA Method 5 or 17; annually (only required if fuel oil is used for more than 400 hours in the previous federal fiscal year)**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 59°F CTG inlet; tpy for 500 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **SO_2**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **94** lb/hour **42.9** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. A.5**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,260 hours per year of natural gas-firing at 4.7 lb/hr, and 500 hours per year of distillate fuel oil-firing at 94 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined. This limit is equivalent to approximately 500 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **4.7** lb/hour **20.6** tons/year
5. Method of Compliance: **40 CFR Part 75 Appendix D SO_2 Monitoring**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 59°F CTG inlet; tpy for 8,760 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **94** lb/hour **23.5** tons/year
5. Method of Compliance: **40 CFR Part 75 Appendix D SO_2 Monitoring**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 59°F CTG inlet; tpy for 500 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **NO_x**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **305** lb/hour **377.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. A.5**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,260 hours per year of natural gas-firing at 73 lb/hr, and 500 hours per year of distillate fuel oil-firing at 305 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined. This limit is equivalent to approximately 500 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **73** lb/hour **319.7** tons/year
5. Method of Compliance: **40 CFR Part 75 NO_x CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 59°F CTG inlet; tpy for 8,760 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **305** lb/hour **76.3** tons/year
5. Method of Compliance: **40 CFR Part 75 NO_x CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 59°F CTG inlet; tpy for 500 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **CO**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **93** lb/hour **341.3** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. A.5**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,260 hours per year of natural gas-firing at 77 lb/hr, and 500 hours per year of distillate fuel oil-firing at 93 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined. This limit is equivalent to approximately 500 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **77** lb/hour **337.3** tons/year
5. Method of Compliance: **N/A**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 59°F CTG inlet; tpy for 8,760 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **93** lb/hour **23.3** tons/year
5. Method of Compliance: **EPA Method 10 (only required if fuel oil is used for more than 400 hours in the previous federal fiscal year)**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 59°F CTG inlet; tpy for 500 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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.

<u>Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions</u>

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **19.0** lb/hour **47.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. A.5**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,260 hours per year of natural gas-firing at 10.4 lb/hr, and 500 hours per year of distillate fuel oil-firing at 19.0 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined. This limit is equivalent to approximately 500 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **10.4** lb/hour **45.6** tons/year
5. Method of Compliance: **N/A**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 59°F CTG inlet; tpy for 8,760 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **N/A**	4. Equivalent Allowable Emissions: **19.0** lb/hour **4.8** tons/year
5. Method of Compliance: **N/A**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 59°F CTG inlet; tpy for 500 hrs/yr at 59°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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 (Formaldehyde - HCOH)**

2. Total Percent Efficiency of Control: **N/A**

3. Potential Emissions: **0.58** lb/hour **2.6** tons/year

4. Synthetically Limited? ☒ Yes ☐ No

5. Range of Estimated Fugitive Emissions (as applicable): **N/A**
To tons/year

6. Emission Factor: **3.04×10^{-4} lb/10^6 Btu, HHV (natural gas)**
2.80×10^{-4} lb/10^6 Btu, HHV (distillate fuel oil)
Reference: **Tables 3.1-3 and 3.1-4, AP-42**

7. Emissions Method Code: **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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (natural gas, 59°F)

$$HCOH = (3.04 \times 10^{-4}\ lb/10^6\ Btu) \times (1{,}915 \times 10^6\ Btu/hr,\ HHV) = 0.58\ lb/hr$$

Annual Rate: (natural gas, 59°F, 8,260 hrs/yr, distillate fuel oil, 59°F, 500 hrs/yr)

$$HCOH = [((3.04 \times 10^{-4}\ lb/10^6\ Btu) \times (1{,}915 \times 10^6\ Btu/hr,\ HHV) \times (8{,}260\ hrs/yr)) + ((2.8 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}020 \times 10^6\ Btu/hr,\ HHV) \times (500\ hrs/yr))] \times (1\ ton/2{,}000\ lb)$$

$$HCOH = 2.6\ ton/yr$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined. This limit is equivalent to approximately 500 hours per year operation per CTG.

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. NOT APPLICABLE

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 of Operating Method):	

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 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: **H106 (Hydrogen Chloride – HCl)**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **3.8** lb/hour **0.94** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **1.87×10^{-3} lb/10^6 Btu, HHV No. 2 fuel oil** Reference: **Mass Balance (30 mg/l Cl content)**	7. Emissions Method Code: **2**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (distillate fuel oil, 59°F)

$$HCl = (1.87 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}020 \times 10^6\ Btu/hr, HHV) = 3.8\ lb/hr$$

Annual Rate: (distillate fuel oil, 59°F, 500 hrs/yr)

$$HCl = ((1.87 \times 10^{-3}\ lb/10^6\ Btu) \times (7.3188 \times 10^6\ gal/yr) \times (138{,}000\ Btu/gal)) \times (1\ ton/2{,}000\ lb)$$

$$HCl = 0.94\ ton/yr$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined. This limit is equivalent to approximately 500 hours per year operation per CTG.

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. NOT APPLICABLE

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 of Operating Method):	

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 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.

<u>Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions</u>

1. Pollutant Emitted: **HAPS**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **8.3** lb/hour **6.8** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **6.0×10^{-4} lb/10^6 Btu, HHV (natural gas)** **4.1×10^{-3} lb/10^6 Btu, HHV (distillate fuel oil)** Reference: **Tables 3.1-3, 3.1-4, and 3.1-5 AP-42**	7. Emissions Method Code: **2 and 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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (distillate fuel oil, 59°F)

HAPS = $(4.1 \times 10^{-3}$ lb/10^6 Btu$) \times (2{,}020 \times 10^6$ Btu/hr, HHV$)$ = 8.3 lb/hr

Annual Rate: (natural gas, 59°F, 8,260 hrs/yr, distillate fuel oil, 59°F, 500 hrs/yr)

HAPS = $[((6.0 \times 10^{-4}$ lb/10^6 Btu$) \times (1{,}915 \times 10^6$ Btu/hr, HHV$) \times (8{,}260$ hrs/yr$))$ + $((4.1 \times 10^{-3}$ lb/10^6 Btu$) \times (2{,}020 \times 10^6$ Btu/hr, HHV$) \times (500$ hrs/yr$))] \times (1$ ton/2,000 lb$)$

HAPS = 6.8 ton/yr

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT1A and CT1B is limited to 14,637,681 gallons per year for both CTGs combined. This limit is equivalent to approximately 500 hours per year operation per CTG.

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. NOT APPLICABLE

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 of Operating Method):	

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 of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

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

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

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **N/A**	
5. Visible Emissions Comment: **Limit applicable during natural gas-firing.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **N/A**	
5. Visible Emissions Comment: **Limit applicable during distillate fuel oil-firing.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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**

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **TEI** Model Number: **42C**	Serial Number: **42C-58559-318**
5. Installation Date: **08/09/1998 – 09/13/1998**	6. Performance Specification Test Date: **01/05/1999 – 01/08/1999**
7. Continuous Monitor Comment: **Required by 40 CFR Part 75 (Acid Rain Program).**	

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

1. Parameter Code: **CO2**	2. Pollutant(s): **N/A**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **CAI** Model Number: **ZRH1**	Serial Number: **N6M 0531T**
5. Installation Date: **08/09/1998 – 09/13/1998**	6. Performance Specification Test Date: **01/05/1999 – 01/08/1999**
7. Continuous Monitor Comment: **Required by 40 CFR Part 75 (Acid Rain Program).**	

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: **Attach. C** ☐ 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: **Attach. 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: __________ ☒ 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: **Attach. L** ☐ 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
☐ Attached, Document ID: __________
Test Date(s)/Pollutant(s) Tested: __________

☒ Previously Submitted, Date: **October 12, 2010**
Test Date(s)/Pollutant(s)
Tested: **August 30, 2010 / NO_x, CO, SO_2, and NH_3.**

☐ 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

NOT APPLICABLE

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: ____	☐ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: ____	☐ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: ____	☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: ☒ Attached, Document ID: **Attach. F**	
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: ____	☒ Not Applicable
3. Alternative Methods of Operation: ☒ Attached, Document ID: **Attach. M**	☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: ____	☒ Not Applicable

Additional Requirements Comment

NOTE:

Emission Unit ID No. 001 (CT1A) and Emission Unit ID No. 002 (CT1B) are identical emission units.

The information provided in Section III. Emissions Unit Information, Section 1 for Emission Unit ID No. 001 is also applicable to Section 2 for EU ID No. 002 with the exception of identification numbers.

Section H, Continuous Monitor Information, for EU ID 002 is provided in the following table:

EU ID	Parameter	Manufacturer	Model No.	Serial No.	Installation Date	Certified Date
002	NO_x	TEI	42C	42C-58558-318	08/09/1998-09/13/1998	01/05/1999-01/08/1999
002	CO_2	CAI	ZRH	N6M 0528T	08/09/1998-09/13/1998	01/05/1999-01/08/1999

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

   Auxiliary Steam Boiler

3. Emissions Unit Identification Number: **003**

4. Emissions Unit Status Code: **A**	5. Commence Construction Date: **N/A**	6. Initial Startup Date: **N/A**	7. Emissions Unit Major Group SIC Code: **49**

8. Federal Program Applicability: (Check all that apply)

   ☐ Acid Rain Unit

   ☐ CAIR Unit

9. Package Unit:
   Manufacturer: **Universal Boiler Works, Inc.** Model Number: **BF**

10. Generator Nameplate Rating: **N/A** MW

11. Emissions Unit Comment:

   Auxiliary boiler is operated during CTG HRSG startups when no other source of steam is available for periodic maintenance and operation testing.

NOT APPLICABLE

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:

Emissions Unit Control Equipment/Method: Control __ of __

1. Control Equipment/Method Description:
2. Control Device or Method Code:

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: **21** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr Tons/day	
5. Requested Maximum Operating Schedule: hours/day days/week weeks/year **1,000** hours/year	
6. Operating Capacity/Schedule Comment: **Auxiliary boiler is operated during CTG HRSG startups when no other source of steam is available for periodic maintenance and operation testing.** **Operation of the auxiliary boiler is limited to no more than 1,000 hours per year in accordance with Condition B.4. of Title V Air Operation Permit No. 1050234-016-AV.**	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **AUXB**	2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **N/A**	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **N/A**	

5. Discharge Type Code: **V**	6. Stack Height: **22** feet	7. Exit Diameter: **2.0** feet
8. Exit Temperature: **320**°F	9. Actual Volumetric Flow Rate: **23,300** acfm	10. Water Vapor: **N/A** %

11. Maximum Dry Standard Flow Rate: **N/A** dscfm	12. Nonstack Emission Point Height: **N/A** feet
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment:	

D. SEGMENT (PROCESS/FUEL) INFORMATION

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

1. Segment Description (Process/Fuel Type): **External Combustion Boilers, Industrial, Natural Gas, Boilers 10 - 100 × 10^6 Btu/hr**		
2. Source Classification Code (SCC): **1-02-006-02**	3. SCC Units: **Million cubic feet burned**	
4. Maximum Hourly Rate: **0.021**	5. Maximum Annual Rate: **21**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **1,020 HHV (nominal)**
10. Segment Comment: **Annual rate based on 21 MMBtu/hr and 1,000 hours per year operation.**		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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
NO_x			EL

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: **NO_x**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **9.9** lb/hour **5.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. B.5**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Annual Potential Emission Rate:

$$NO_x = (9.9\ lb/hr) \times (1{,}000\ hr/yr) \times (1\ ton/2{,}000\ lb) = 5.0\ ton/yr$$

11. Potential, Fugitive, and Actual Emissions Comment:

Annual potential emissions based on 1,000 hours per year operation.

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 **1** of **1**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.1 lb/MMBtu**	4. Equivalent Allowable Emissions: **9.9** lb/hour **5.0** tons/year
5. Method of Compliance: **N/A**	
6. Allowable Emissions Comment (Description of Operating Method): **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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 of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

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

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

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **N/A**	
5. Visible Emissions Comment: **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Visible Emissions Limitation: Visible Emissions Limitation of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this 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 ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

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: **Attach. C** ☐ 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: **Attach. 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: _________ ☒ 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: _________ ☐ Previously Submitted, Date:__________
☒ Not Applicable

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
☐ Attached, Document ID: _________
Test Date(s)/Pollutant(s) Tested: ____________________________________
☐ Previously Submitted, Date: ______
Test Date(s)/Pollutant(s) Tested: ____________________________________
☐ 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

NOT APPLICABLE

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: ________ ☐ Not Applicable	
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: ________ ☐ Not Applicable	
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: ________ ☐ Not Applicable	

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: ☒ Attached, Document ID: **Attach. F**	
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 Trading): ☐ Attached, Document ID: ________ ☒ Not Applicable	

Additional Requirements Comment

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
   Power Block 2; CT2A
   Westinghouse Model 501FD dual-fuel, combustion turbine generator (CTG), unfired heat recovery steam generator (HRSG), and one common steam turbine generator (STG) shared with CT2B.

3. Emissions Unit Identification Number: **014**

4. Emissions Unit Status Code: **A**	5. Commence Construction Date: **N/A**	6. Initial Startup Date: **N/A**	7. Emissions Unit Major Group SIC Code: **49**

8. Federal Program Applicability: (Check all that apply)
   ☒ Acid Rain Unit
   ☒ CAIR Unit

9. Package Unit:
   Manufacturer: **Westinghouse** Model Number: **501FD**

10. Generator Nameplate Rating: **170 MW (nominal)**

11. Emissions Unit Comment:

    CT2A and CT2B share a common 190 MW STG.

Emissions Unit Control Equipment/Method: Control **1** of **3**

1. Control Equipment/Method Description: **Dry Low NO_x (DLN) combustion – natural gas firing**	
2. Control Device or Method Code: **025**	

Emissions Unit Control Equipment/Method: Control **2** of **3**

1. Control Equipment/Method Description: **Wet Injection – distillate oil firing**	
2. Control Device or Method Code: **028**	

Emissions Unit Control Equipment/Method: Control **3** of **3**

1. Control Equipment/Method Description: **Selective Catalytic Reduction (SCR) – natural gas firing/ distillate oil firing**	
2. Control Device or Method Code: **139**	

Emissions Unit Control Equipment/Method: Control __ of __

1. Control Equipment/Method Description:	
2. Control Device or Method Code:	

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: **2,155** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr Tons/day	
5. Requested Maximum Operating Schedule: hours/day weeks/year	days/week **8,760** hours/year
6. Operating Capacity/Schedule Comment: **Higher heating value (HHV) heat input shown is for distillate fuel oil firing at 59°F CTG inlet temperature and 100% load. For natural gas firing, HHV heat input is 2,048 MMBtu/hr at 59°F CTG inlet temperature and 100% load.** **Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is approximately equivalent to 720 hours per year operation per CTG.**	

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **CT2A**	2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **N/A**	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **N/A**	

5. Discharge Type Code: **V**	6. Stack Height: **125** feet	7. Exit Diameter: **19.0** feet
8. Exit Temperature: **190°F**	9. Actual Volumetric Flow Rate: **1,009,500** acfm	10. Water Vapor: **N/A** %

11. Maximum Dry Standard Flow Rate: **N/A** dscfm	12. Nonstack Emission Point Height: **N/A** feet
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment:	

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines, Electric Generation, Natural Gas, Turbine**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **2.008**	5. Maximum Annual Rate: **17,589**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **1,020 (HHV), nominal**
10. Segment Comment: **Fields 4 and 5 maximum rates based on 2,048 MMBtu/hr at 59°F.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines, Electric Generation, Distillate Oil (No. 2), Turbine**		
2. Source Classification Code (SCC): **2-01-001-01**	3. SCC Units: **Thousand Gallons**	
4. Maximum Hourly Rate: **15.616**	5. Maximum Annual Rate: **11,243**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash: **0.1**	9. Million Btu per SCC Unit: **138 (HHV), nominal**
10. Segment Comment: **Fields 4 and 5 maximum rates based on 2,155 MMBtu/hr at 59°F.** **Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined.**		

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
PM/PM_{10}			**WP**
SO_2			**WP**
NO_x	**025, 028**	**139**	**EL**
CO			**EL**
VOC			**EL**
Formaldehyde H095			**NS**
Hydrochloric Acid H106			**NS**
Total 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: **PM/PM_{10}**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **64.8** lb/hour **52.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. E.4.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 7.3 lb/hr, and 720 hours per year of distillate fuel oil-firing at 64.8 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Fuel Specifications, 10% Opacity**	4. Equivalent Allowable Emissions: **7.3** lb/hour **32.0** tons/year
5. Method of Compliance: **Fuel Specifications** **EPA Reference Method 9 for Opacity (Surrogate for PM/PM_{10})**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Fuel Specifications, 10% Opacity**	4. Equivalent Allowable Emissions: **64.8** lb/hour **23.3** tons/year
5. Method of Compliance: **Fuel Specifications** **EPA Reference Method 9 for Opacity (Surrogate for PM/PM_{10}); VE test is not required during any fiscal federal year in which less than 6,246,377 gallons of distillate fuel oil is fired in both CT2A and CT2B combined (200 hours per year per CT).**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20°F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **SO_2**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **105.6** lb/hour **60.5** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. E.4.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**
10. Calculation of Emissions: **Hourly potential emission rate based on distillate fuel oil-firing.** **Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 5.6 lb/hr, and 720 hours per year of distillate fuel oil-firing at 105.6 lb/hr.**	
11. Potential, Fugitive, and Actual Emissions Comment: **Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.**	

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.0 grains S / 100 scf natural gas**	4. Equivalent Allowable Emissions: **5.6** lb/hour **24.5** tons/year
5. Method of Compliance: **40 CFR Part 75 Appendix D SO_2 Monitoring**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.05 weight % S fuel oil**	4. Equivalent Allowable Emissions: **105.6** lb/hour **38.0** tons/year
5. Method of Compliance: **40 CFR Part 75 Appendix D SO_2 Monitoring**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20°F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **NO_x**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **99.7** lb/hour **144.4** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. E.4.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**
10. Calculation of Emissions: **Hourly potential emission rate based on distillate fuel oil-firing.** **Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 27.0 lb/hr, and 720 hours per year of distillate fuel oil-firing at 99.7 lb/hr.**	
11. Potential, Fugitive, and Actual Emissions Comment: **Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.**	

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **3.5 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **27.0** lb/hour **118.3** tons/year
5. Method of Compliance: **40 CFR Part 75 NO_x CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **12 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **99.7** lb/hour **35.9** tons/year
5. Method of Compliance: **40 CFR Part 75 NO_x CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **CO**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **119.5** lb/hour **359.4** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. E.4.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 78.7 lb/hr, and 720 hours per year of distillate fuel oil-firing at 119.5 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **16 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **78.7** lb/hour **344.7** tons/year
5. Method of Compliance: **40 CFR Part 60 CO CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **30 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **119.5** lb/hour **43.0** tons/year
5. Method of Compliance: **40 CFR Part 60 CO CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **VOC**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **23.5** lb/hour **28.6** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. E.4.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 5.0 lb/hr, and 720 hours per year of distillate fuel oil-firing at 23.5 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **5.0** lb/hour **21.9** tons/year
5. Method of Compliance: **N/A (Compliance with CO emission limit used as a surrogate)**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **23.5** lb/hour **8.5** tons/year
5. Method of Compliance: **N/A (Compliance with CO emission limit used as a surrogate)**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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 (Formaldehyde - HCOH)**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **0.62** lb/hour **2.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **3.04×10^{-4} lb/10^6 Btu, HHV (natural gas)** **2.80×10^{-4} lb/10^6 Btu, HHV (distillate fuel oil)** Reference: **Tables 3.1-3 and 3.1-4, AP-42**	7. Emissions Method Code: **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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (natural gas, 59°F)

$$HCOH = (3.04 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}048 \times 10^6\ Btu/hr,\ HHV) = 0.62\ lb/hr$$

Annual Rate: (natural gas, 59°F, 8,040 hrs/yr, distillate fuel oil, 59°F, 720 hrs/yr)

$$HCOH = [((3.04 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}048 \times 10^6\ Btu/hr,\ HHV) \times (8{,}040\ hrs/yr)) + ((2.8 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}155 \times 10^6\ Btu/hr,\ HHV) \times (720\ hrs/yr))] \times (1\ ton/2{,}000\ lb)$$

$$HCOH = 2.7\ ton/yr$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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. **NOT APPLICABLE**

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 of Operating Method):	

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 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: **H106 (Hydrogen Chloride – HCl)**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **4.0** lb/hour **1.5** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **1.87×10^{-3} lb/10^6 Btu, HHV No. 2 fuel oil** Reference: **Mass Balance (30 mg/l Cl content)**	7. Emissions Method Code: **2**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (distillate fuel oil, 59°F)

$$HCl = (1.87 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}155 \times 10^6\ Btu/hr, HHV) = 4.0\ lb/hr$$

Annual Rate: (distillate fuel oil, 59°F, 720 hrs/yr)

$$HCl = ((1.87 \times 10^{-3}\ lb/10^6\ Btu) \times (11.244 \times 10^6\ gal/yr) \times (138{,}000\ Btu/gal) \times (1\ ton/2{,}000\ lb)$$

$$HCl = 1.5\ ton/yr$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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. NOT APPLICABLE

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 of Operating Method):	

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 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.

<u>Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions</u>

1. Pollutant Emitted: **HAPS**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **8.8** lb/hour **8.1** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **6.0×10^{-4} lb/10^6 Btu, HHV (natural gas)** **4.1×10^{-3} lb/10^6 Btu, HHV (distillate fuel oil)** Reference: **Tables 3.1-3, 3.1-4, and 3.1-5 AP-42**	7. Emissions Method Code: **2 and 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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (distillate fuel oil, 59°F)

$$\text{HAPS} = (4.1 \times 10^{-3}\ \text{lb}/10^6\ \text{Btu}) \times (2{,}155 \times 10^6\ \text{Btu/hr, HHV}) = 8.8\ \text{lb/hr}$$

Annual Rate: (natural gas, 59°F, 8,040 hrs/yr, distillate fuel oil, 59°F, 720 hrs/yr)

$$\text{HAPS} = [((6.0 \times 10^{-4}\ \text{lb}/10^6\ \text{Btu}) \times (2{,}048 \times 10^6\ \text{Btu/hr, HHV}) \times (8{,}040\ \text{hrs/yr})) + ((4.1 \times 10^{-3}\ \text{lb}/10^6\ \text{Btu}) \times (2{,}155 \times 10^6\ \text{Btu/hr, HHV}) \times (720\ \text{hrs/yr}))] \times (1\ \text{ton}/2{,}000\ \text{lb})$$

$$\text{HAPS} = 8.1\ \text{ton/yr}$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT2A and CT2B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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. **NOT APPLICABLE**

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 of Operating Method):	

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 of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

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

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

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **N/A**	
5. Visible Emissions Comment: **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Visible Emissions Limitation: Visible Emissions Limitation of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

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 **3**

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **TECO** Model Number: **42CHL**	Serial Number: **42CHL74691-377**
5. Installation Date: **10/01/2003**	6. Performance Specification Test Date: **11/07/2003-11/08/2003**
7. Continuous Monitor Comment: **Required by 40 CFR Part 75 (Acid Rain Program).**	

Continuous Monitoring System: Continuous Monitor **2** of **3**

1. Parameter Code: **O2**	2. Pollutant(s): **N/A**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **Servomex** Model Number: **1440**	Serial Number: **1440/2756**
5. Installation Date: **10/01/2003**	6. Performance Specification Test Date: **11/07/2003-11/08/2003**
7. Continuous Monitor Comment: **Required by 40 CFR Part 75 (Acid Rain Program).**	

H. CONTINUOUS MONITOR INFORMATION

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

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

1. Parameter Code: **EM**	2. Pollutant(s): **CO**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **TECO** Model Number: **48C CO**	Serial Number: **48C-73424373**
5. Installation Date: **10/01/2003**	6. Performance Specification Test Date: **11/07/2003-11/08/2003**
7. Continuous Monitor Comment: **Required by Condition E.13. of Title V Air Operation Permit No. 1050234-016-AV.**	

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:	

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: **Attach. C** ☐ 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: **Attach. 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: __________ ☒ 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: **Attach. L** ☐ 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
   ☐ Attached, Document ID: __________
   Test Date(s)/Pollutant(s) Tested: __________

   ☒ Previously Submitted, Date: **October 15, 2010**
   Test Date(s)/Pollutant(s) Tested: **August 31, 2010 / NO_x, CO, SO_2, and NH_3.**

   ☐ 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

NOT APPLICABLE

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: ______	☐ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: ______	☐ Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: ______	☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements: ☒ Attached, Document ID: **Attach. F**	
2. Compliance Assurance Monitoring: ☐ Attached, Document ID: ______	☒ Not Applicable
3. Alternative Methods of Operation: ☒ Attached, Document ID: **Attach. M**	☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: ______	☒ Not Applicable

Additional Requirements Comment

NOTE:

Emission Unit ID No. 014 (CT2A) and Emission Unit ID No. 015 (CT2B) are identical emission units.

The information provided in Section III. Emissions Unit Information, Section 4 for Emission Unit ID No. 014 is also applicable to Section 5 for EU ID No. 015 with the exception of identification numbers.

Section H, Continuous Monitor Information, for EU IDs 015 is provided in the following table:

EU ID	Parameter	Manufacturer	Model No.	Serial No.	Installation Date	Certified Date
015	NO_x	TECO	42CHL	42CHL-74692-377	10/01/2003	11/07/2003-11/08/2003
015	O_2	Servomex	1440	N1440/2755	10/01/2003	11/07/2003-11/08/2003
015	CO	TECO	48C CO	48C-73426-373	10/01/2003	11/07/2003-11/08/2003

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
   Power Block 3; CT3A
   Westinghouse Model 501FD dual-fuel, combustion turbine generator (CTG), unfired heat recovery steam generator (HRSG), and one common steam turbine generator (STG) shared with CT3B.

3. Emissions Unit Identification Number: **016**

4. Emissions Unit Status Code: **A**	5. Commence Construction Date: **N/A**	6. Initial Startup Date: **N/A**	7. Emissions Unit Major Group SIC Code: **49**

8. Federal Program Applicability: (Check all that apply)

   ☒ Acid Rain Unit

   ☒ CAIR Unit

9. Package Unit:
   Manufacturer: **Westinghouse** Model Number: **501FD**

10. Generator Nameplate Rating: **170 MW (nominal)**

11. Emissions Unit Comment:

    CT3A and CT3B share a common 190 MW STG.

Emissions Unit Control Equipment/Method: Control **1** of **3**

1. Control Equipment/Method Description: **Dry Low NO_x (DLN) combustion – natural gas firing**	
2. Control Device or Method Code: **025**	

Emissions Unit Control Equipment/Method: Control **2** of **3**

1. Control Equipment/Method Description: **Wet Injection – distillate oil firing**	
2. Control Device or Method Code: **028**	

Emissions Unit Control Equipment/Method: Control **3** of **3**

1. Control Equipment/Method Description: **Selective Catalytic Reduction (SCR) – natural gas firing/ distillate oil firing**	
2. Control Device or Method Code: **139**	

Emissions Unit Control Equipment/Method: Control __ of __

1. Control Equipment/Method Description:	
2. Control Device or Method Code:	

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: **2,155** million Btu/hr				
4. Maximum Incineration Rate:	pounds/hr			
	Tons/day			
5. Requested Maximum Operating Schedule:				
		hours/day		days/week
		weeks/year	**8,760**	hours/year
6. Operating Capacity/Schedule Comment: **Higher heating value (HHV) heat input shown is for distillate fuel oil firing at 59°F CTG inlet temperature and 100% load. For natural gas firing, HHV heat input is 2,048 MMBtu/hr at 59°F CTG inlet temperature and 100% load.** **Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined.**				

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **CT3A**		2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **N/A**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **N/A**		
5. Discharge Type Code: **V**	6. Stack Height: **125** feet	7. Exit Diameter: **19.0** feet
8. Exit Temperature: **190°F**	9. Actual Volumetric Flow Rate: **1,009,500** acfm	10. Water Vapor: **N/A** %
11. Maximum Dry Standard Flow Rate: **N/A** dscfm		12. Nonstack Emission Point Height: **N/A** feet
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines, Electric Generation, Natural Gas, Turbine**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **2.008**	5. Maximum Annual Rate: **17,589**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **1,020 (HHV), nominal**
10. Segment Comment: **Fields 4 and 5 maximum rates based on 2,048 MMBtu/hr at 59°F.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines, Electric Generation, Distillate Oil (No. 2), Turbine**		
2. Source Classification Code (SCC): **2-01-001-01**	3. SCC Units: **Thousand Gallons**	
4. Maximum Hourly Rate: **15.616**	5. Maximum Annual Rate: **11,244**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash: **0.1**	9. Million Btu per SCC Unit: **138 (HHV), nominal**
10. Segment Comment: **Fields 4 and 5 maximum rates based on 2,155 MMBtu/hr at 59°F.** **Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined.**		

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
PM/PM_{10}			**WP**
SO_2			**WP**
NO_x	**025, 028**	**139**	**EL**
CO			**EL**
VOC			**EL**
Formaldehyde H095			**NS**
Hydrochloric Acid H106			**NS**
Total 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: **PM/PM_{10}**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **64.8** lb/hour **57.5** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. F.8.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 8.5 lb/hr, and 720 hours per year of distillate fuel oil-firing at 64.8 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Fuel Specifications, 10% Opacity**	4. Equivalent Allowable Emissions: **8.5** lb/hour **37.2** tons/year
5. Method of Compliance: **Fuel Specifications** **EPA Reference Method 9 for Opacity (Surrogate for PM/PM_{10})**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Fuel Specifications, 10% Opacity**	4. Equivalent Allowable Emissions: **64.8** lb/hour **23.3** tons/year
5. Method of Compliance: **Fuel Specifications** **EPA Reference Method 9 for Opacity (Surrogate for PM/PM_{10}); VE test is not required during any fiscal federal year in which less than 6,246,377 gallons of distillate fuel oil is fired in both CT3A and CT3B combined (200 hours per year per CT).**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20°F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **SO_2**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **105.6** lb/hour **60.5** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. F.8.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 5.6 lb/hr, and 720 hours per year of distillate fuel oil-firing at 105.6 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.0 grains S / 100 scf natural gas**	4. Equivalent Allowable Emissions: **5.6** lb/hour **24.5** tons/year
5. Method of Compliance: **40 CFR Part 75 Appendix D SO_2 Monitoring**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.05 weight % S fuel oil**	4. Equivalent Allowable Emissions: **105.6** lb/hour **38.0** tons/year
5. Method of Compliance: **40 CFR Part 75 Appendix D SO_2 Monitoring**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20°F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **NOx**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **82.0** lb/hour **106.3** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. F.8.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**
10. Calculation of Emissions: **Hourly potential emission rate based on distillate fuel oil-firing.** **Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 19.1 lb/hr, and 720 hours per year of distillate fuel oil-firing at 82.0 lb/hr.**	
11. Potential, Fugitive, and Actual Emissions Comment: **Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.**	

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2.5 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **19.1** lb/hour **83.7** tons/year
5. Method of Compliance: **40 CFR Part 75 NO_x CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **82.0** lb/hour **29.5** tons/year
5. Method of Compliance: **40 CFR Part 75 NO_x CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **CO**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **80.0** lb/hour **226.6** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. F.8.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 49.2 lb/hr, and 720 hours per year of distillate fuel oil-firing at 80.0 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **49.2** lb/hour **215.5** tons/year
5. Method of Compliance: **40 CFR Part 60 CO CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **20 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **80.0** lb/hour **28.8** tons/year
5. Method of Compliance: **40 CFR Part 60 CO CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **VOC**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **23.5** lb/hour **31.4** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. F.8.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**
10. Calculation of Emissions: **Hourly potential emission rate based on distillate fuel oil-firing.** **Annual potential emission rate based on 8,040 hours per year of natural gas-firing at 5.7 lb/hr, and 720 hours per year of distillate fuel oil-firing at 23.5 lb/hr.**	
11. Potential, Fugitive, and Actual Emissions Comment: **Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.**	

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **5.7** lb/hour **25.0** tons/year
5. Method of Compliance: **N/A (Compliance with CO emission limit used as a surrogate)**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **23.5** lb/hour **8.5** tons/year
5. Method of Compliance: **N/A (Compliance with CO emission limit used as a surrogate)**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20F CTG inlet; tpy for 720 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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 (Formaldehyde - HCOH)**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **0.62** lb/hour **2.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **3.04×10^{-4} lb/10^6 Btu, HHV (natural gas)** **2.80×10^{-4} lb/10^6 Btu, HHV (distillate fuel oil)** Reference: **Tables 3.1-3 and 3.1-4, AP-42**	7. Emissions Method Code: **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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (natural gas, 59°F)

$$HCOH = (3.04 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}048 \times 10^6\ Btu/hr,\ HHV) = 0.62\ lb/hr$$

Annual Rate: (natural gas, 59°F, 8,040 hrs/yr, distillate fuel oil, 59°F, 720 hrs/yr)

$$HCOH = [((3.04 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}048 \times 10^6\ Btu/hr,\ HHV) \times (8{,}040\ hrs/yr)) + ((2.8 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}155 \times 10^6\ Btu/hr,\ HHV) \times (720\ hrs/yr))] \times (1\ ton/2{,}000\ lb)$$

$$HCOH = 2.7\ ton/yr$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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. **NOT APPLICABLE**

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 of Operating Method):	

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 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.

<u>Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions</u>

1. Pollutant Emitted: **H106 (Hydrogen Chloride – HCl)**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **4.0** lb/hour **1.5** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **1.87 × 10^{-3} lb/10^6 Btu, HHV No. 2 fuel oil** Reference: **Mass Balance (30 mg/l Cl content)**	7. Emissions Method Code: **2**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (distillate fuel oil, 59°F)

$$HCl = (1.87 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}155 \times 10^6\ Btu/hr,\ HHV) = 4.0\ lb/hr$$

Annual Rate: (distillate fuel oil, 59°F, 720 hrs/yr)

$$HCl = (1.87 \times 10^{-3}\ lb/10^6\ Btu) \times (11.244 \times 10^6\ gal/yr) \times (138{,}000\ Btu/gal) \times (1\ ton/2{,}000\ lb)$$

$$HCl = 1.5\ ton/yr$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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. NOT APPLICABLE

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 of Operating Method):	

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 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: **HAPS**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **8.8** lb/hour **8.1** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **6.0×10^{-4} lb/10^6 Btu, HHV (natural gas)** **4.1×10^{-3} lb/10^6 Btu, HHV (distillate fuel oil)** Reference: **Tables 3.1-3, 3.1-4, and 3.1-5 AP-42**	7. Emissions Method Code: **2 and 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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (distillate fuel oil, 59°F)

$$\text{HAPS} = (4.1 \times 10^{-3}\ \text{lb}/10^6\ \text{Btu}) \times (2{,}155 \times 10^6\ \text{Btu/hr, HHV}) = 8.8\ \text{lb/hr}$$

Annual Rate: (natural gas, 59°F, 8,040 hrs/yr, distillate fuel oil, 59°F, 720 hrs/yr)

$$\text{HAPS} = [((6.0 \times 10^{-4}\ \text{lb}/10^6\ \text{Btu}) \times (2{,}048 \times 10^6\ \text{Btu/hr, HHV}) \times (8{,}040\ \text{hrs/yr})) + ((4.1 \times 10^{-3}\ \text{lb}/10^6\ \text{Btu}) \times (2{,}155 \times 10^6\ \text{Btu/hr, HHV}) \times (720\ \text{hrs/yr}))] \times (1\ \text{ton}/2{,}000\ \text{lb})$$

$$\text{HAPS} = 8.1\ \text{ton/yr}$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT3A and CT3B is limited to 22,486,957 gallons per year for both CTGs combined. This limit is equivalent to approximately 720 hours per year operation per CTG.

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. NOT APPLICABLE

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 of Operating Method):	

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 of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

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

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

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **N/A**	
5. Visible Emissions Comment: **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Visible Emissions Limitation: Visible Emissions Limitation of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

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 **3**

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **TECO** Model Number: **42C LS**	Serial Number: **0424708033**
5. Installation Date: **09/08/2005**	6. Performance Specification Test Date: **10/21/2005**
7. Continuous Monitor Comment: **Required by 40 CFR Part 75 (Acid Rain Program).**	

Continuous Monitoring System: Continuous Monitor **2** of **3**

1. Parameter Code: **O2**	2. Pollutant(s): **N/A**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **Servomex** Model Number: **1440**	Serial Number: **01440C1STD/2896**
5. Installation Date: **09/08/2005**	6. Performance Specification Test Date: **10/21/2005**
7. Continuous Monitor Comment: **Required by 40 CFR Part 75 (Acid Rain Program).**	

H. CONTINUOUS MONITOR INFORMATION

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

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

1. Parameter Code: **EM**	2. Pollutant(s): **CO**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **TECO** Model Number: **48CTL**	Serial Number: **040415406563**
5. Installation Date: **09/08/2005**	6. Performance Specification Test Date: **10/21/2005**
7. Continuous Monitor Comment: **Required by Condition F.13. of Title V Air Operation Permit No. 1050234-016-AV.**	

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:	

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: **Attach. C** ☐ 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: **Attach. 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: __________ ☒ 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: **Attach. L** ☐ 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 ☐ Attached, Document ID: __________ Test Date(s)/Pollutant(s) Tested: __________ ☒ Previously Submitted, Date: **October 15, 2010** Test Date(s)/Pollutant(s) Tested: **August 31, 2010 / NO_x, CO, SO_2, and NH_3.** ☐ 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

NOT APPLICABLE

1.	Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: ________ ☐ Not Applicable
2.	Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: ________ ☐ Not Applicable
3.	Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: ________ ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1.	Identification of Applicable Requirements: ☒ Attached, Document ID: **Attach. F**
2.	Compliance Assurance Monitoring: ☐ Attached, Document ID: ________ ☒ Not Applicable
3.	Alternative Methods of Operation: ☒ Attached, Document ID: **Attach. M** ☐ Not Applicable
4.	Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: ________ ☒ Not Applicable

Additional Requirements Comment

NOTE:

Emission Unit ID No. 016 (CT3A) and Emission Unit ID No. 017 (CT3B) are identical emission units.

The information provided in Section III. Emissions Unit Information, Section 6 for Emission Unit ID No. 016 is also applicable to Section 7 for EU ID No. 017 with the exception of identification numbers.

Section H, Continuous Monitor Information, for EU ID 017 is provided in the following table:

EU ID	Parameter	Manufacturer	Model No.	Serial No.	Installation Date	Certified Date
017	NO_x	TECO	42C LS	0424508178	09/08/2005	10/21/2005
017	O_2	Servomex	1440	01440C1STD/2885	09/08/2005	10/21/2005
017	CO	TECO	48CTL	0415406564	09/08/2005	10/21/2005

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
   Power Block 4; CT4A
   General Electric Model 7FA dual-fuel, combustion turbine generator (CTG), unfired heat recovery steam generator (HRSG), and one common steam turbine generator (STG) shared with CT4B.

3. Emissions Unit Identification Number: **018**

4. Emissions Unit Status Code: **A**	5. Commence Construction Date: **N/A**	6. Initial Startup Date: **N/A**	7. Emissions Unit Major Group SIC Code: **49**

8. Federal Program Applicability: (Check all that apply)

   ☒ Acid Rain Unit

   ☒ CAIR Unit

9. Package Unit:
   Manufacturer: **General Electric** Model Number: **7FA**

10. Generator Nameplate Rating: **170 MW (nominal)**

11. Emissions Unit Comment:

    CT4A and CT4B share a common 190 MW STG.

Emissions Unit Control Equipment/Method: Control **1** of **3**

1.	Control Equipment/Method Description: **Dry Low NO_x (DLN) combustion – natural gas firing**
2.	Control Device or Method Code: **025**

Emissions Unit Control Equipment/Method: Control **2** of **3**

1.	Control Equipment/Method Description: **Wet Injection – distillate oil firing**
2.	Control Device or Method Code: **028**

Emissions Unit Control Equipment/Method: Control **3** of **3**

1.	Control Equipment/Method Description: **Selective Catalytic Reduction (SCR) – natural gas firing/ distillate oil firing**
2.	Control Device or Method Code: **139**

Emissions Unit Control Equipment/Method: Control ___ of ___

1.	Control Equipment/Method Description:
2.	Control Device or Method Code:

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: **2,122** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr Tons/day	
5. Requested Maximum Operating Schedule: hours/day weeks/year	days/week **8,760** hours/year
6. Operating Capacity/Schedule Comment: **Higher heating value (HHV) heat input shown is for distillate fuel oil firing at 59°F CTG inlet temperature and 100% load. For natural gas firing, HHV heat input is 1,915 MMBtu/hr at 59°F CTG inlet temperature and 100% load.** **Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined.**	

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

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **CT4A**	2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **N/A**	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **N/A**	

5. Discharge Type Code: **V**	6. Stack Height: **125** feet	7. Exit Diameter: **18.0** feet
8. Exit Temperature: **200**°F	9. Actual Volumetric Flow Rate: **1,036,300** acfm	10. Water Vapor: **N/A** %

11. Maximum Dry Standard Flow Rate: **N/A** dscfm	12. Nonstack Emission Point Height: **N/A** feet
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment:	

D. SEGMENT (PROCESS/FUEL) INFORMATION

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

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines, Electric Generation, Natural Gas, Turbine**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **1.877**	5. Maximum Annual Rate: **16,447**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **1,020 (HHV), nominal**
10. Segment Comment: **Fields 4 and 5 maximum rates based on 1,915 MMBtu/hr at 59°F.**		

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

1. Segment Description (Process/Fuel Type): **Internal Combustion Engines, Electric Generation, Distillate Oil (No. 2), Turbine**		
2. Source Classification Code (SCC): **2-01-001-01**	3. SCC Units: **Thousand Gallons**	
4. Maximum Hourly Rate: **15.377**	5. Maximum Annual Rate: **15,377**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash: **0.1**	9. Million Btu per SCC Unit: **138 (HHV), nominal**
10. Segment Comment: **Fields 4 and 5 maximum rates based on 2,122 MMBtu/hr at 59°F.** **Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined.**		

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
PM/PM_{10}			**WP**
SO_2			**WP**
NO_x	**025, 028**	**139**	**EL**
CO			**EL**
VOC			**EL**
Formaldehyde H095			**NS**
Hydrochloric Acid H106			**NS**
Total 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: **PM/PM_{10}**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **39.1** lb/hour **58.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. G.10.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 7,760 hours per year of natural gas-firing at 10.1 lb/hr, and 1,000 hours per year of distillate fuel oil-firing at 39.1 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined. This limit is equivalent to 1,000 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Fuel Specifications, 10% Opacity**	4. Equivalent Allowable Emissions: **10.1** lb/hour **44.2** tons/year
5. Method of Compliance: **Fuel Specifications** **EPA Reference Method 9 for Opacity (Surrogate for PM/PM_{10})**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **Fuel Specifications, 10% Opacity**	4. Equivalent Allowable Emissions: **39.1** lb/hour **19.6** tons/year
5. Method of Compliance: **Fuel Specifications** **EPA Reference Method 9 for Opacity (Surrogate for PM/PM_{10}); VE test is not required during any fiscal federal year in which less than 6,150,724 gallons of distillate fuel oil is fired in both CT4A and CT4B combined.**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20°F CTG inlet; tpy for 1,000 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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.

<u>Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions</u>

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **109.2** lb/hour **75.6** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. G.10.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 7,760 hours per year of natural gas-firing at 5.4 lb/hr, and 1,000 hours per year of distillate fuel oil-firing at 109.2 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined. This limit is equivalent to 1,000 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.0 grains S / 100 scf natural gas**	4. Equivalent Allowable Emissions: **5.4** lb/hour **23.7** tons/year
5. Method of Compliance: **40 CFR Part 75 Appendix D SO_2 Monitoring**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.05 weight % S fuel oil**	4. Equivalent Allowable Emissions: **109.2** lb/hour **54.6** tons/year
5. Method of Compliance: **40 CFR Part 75 Appendix D SO_2 Monitoring**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20°F CTG inlet; tpy for 1,000 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **NOx**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **82.4** lb/hour **109.9** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. G.10.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 7,760 hours per year of natural gas-firing at 17.7 lb/hr, and 1,000 hours per year of distillate fuel oil-firing at 82.4 lb/hr.

11. *Potential, Fugitive, and Actual Emissions Comment:*

Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined. This limit is equivalent to 1,000 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2.5 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **17.7** lb/hour **77.5** tons/year
5. Method of Compliance: **40 CFR Part 75 NO_x CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **10.0 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **82.4** lb/hour **41.2** tons/year
5. Method of Compliance: **40 CFR Part 75 NO_x CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20F CTG inlet; tpy for 1,000 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **CO**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **57.2** lb/hour **153.1** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. G.10.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 7,760 hours per year of natural gas-firing at 32.1 lb/hr, and 1,000 hours per year of distillate fuel oil-firing at 57.2 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined. This limit is equivalent to 1,000 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **8.0 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **32.1** lb/hour **140.6** tons/year
5. Method of Compliance: **40 CFR Part 60 CO CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **12 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **57.2** lb/hour **28.6** tons/year
5. Method of Compliance: **40 CFR Part 60 CO CEMS**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20F CTG inlet; tpy for 1,000 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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: **VOC**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **8.1** lb/hour **16.1** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: Reference: **Permit No. 1050234-016-AV Condition No. G.10.**	7. Emissions Method Code: **0**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly potential emission rate based on distillate fuel oil-firing.

Annual potential emission rate based on 7,760 hours per year of natural gas-firing at 3.1 lb/hr, and 1,000 hours per year of distillate fuel oil-firing at 8.1 lb/hr.

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined. This limit is equivalent to 1,000 hours per year operation per CTG.

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 **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.3 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **3.1** lb/hour **13.6** tons/year
5. Method of Compliance: **N/A (Compliance with CO emission limit used as a surrogate)**	
6. Allowable Emissions Comment (Description of Operating Method): **Natural Gas Firing: lb/hr at 20°F CTG inlet; tpy for 8,760 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Allowable Emissions Allowable Emissions **1** of **2**

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **3.0 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **8.1** lb/hour **4.1** tons/year
5. Method of Compliance: **N/A (Compliance with CO emission limit used as a surrogate)**	
6. Allowable Emissions Comment (Description of Operating Method): **Distillate Fuel Oil Firing: lb/hr at 20F CTG inlet; tpy for 1,000 hrs/yr at 20°F CTG inlet.** **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

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 (Formaldehyde - HCOH)**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **0.58** lb/hour **2.6** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **3.04×10^{-4} lb/10^6 Btu, HHV (natural gas)** **2.80×10^{-4} lb/10^6 Btu, HHV (distillate fuel oil)** Reference: **Tables 3.1-3 and 3.1-4, AP-42**	7. Emissions Method Code: **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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (natural gas, 59°F)

$$HCOH = (3.04 \times 10^{-4}\ lb/10^6\ Btu) \times (1{,}915 \times 10^6\ Btu/hr,\ HHV) = 0.58\ lb/hr$$

Annual Rate: (natural gas, 59°F, 7,760 hrs/yr, distillate fuel oil, 59°F, 1,000 hrs/yr)

$$HCOH = [((3.04 \times 10^{-4}\ lb/10^6\ Btu) \times (1{,}915 \times 10^6\ Btu/hr,\ HHV) \times (7{,}760\ hrs/yr)) + ((2.8 \times 10^{-4}\ lb/10^6\ Btu) \times (2{,}122 \times 10^6\ Btu/hr,\ HHV) \times (1{,}000\ hrs/yr))] \times (1\ ton/2{,}000\ lb)$$

$$HCOH = 2.6\ ton/yr$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined. This limit is equivalent to 1,000 hours per year operation per CTG.

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. NOT APPLICABLE

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 of Operating Method):	

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 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.

<u>Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions</u>

1. Pollutant Emitted: **H106 (Hydrogen Chloride – HCl)**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **4.0** lb/hour **1.3** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **1.87×10^{-3} lb/10^6 Btu, HHV No. 2 fuel oil** Reference: **Mass Balance (30 mg/l Cl content)**	7. Emissions Method Code: **2**
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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (distillate fuel oil, 59°F)

$$\mathrm{HCl} = (1.87 \times 10^{-4}\ \mathrm{lb}/10^6\ \mathrm{Btu}) \times (2{,}122 \times 10^6\ \mathrm{Btu/hr,\ HHV}) = 4.0\ \mathrm{lb/hr}$$

Annual Rate: (distillate fuel oil, 59°F, 1,000 hrs/yr)

$$\mathrm{HCl} = ((1.87 \times 10^{-3}\ \mathrm{lb}/10^6\ \mathrm{Btu}) \times (2{,}122 \times 10^6\ \mathrm{Btu/hr,\ HHV}) \times (1{,}000\ \mathrm{hrs/yr})) \times (1\ \mathrm{ton}/2{,}000\ \mathrm{lb})$$

$$\mathrm{HCl} = 2.0\ \mathrm{ton/yr}$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined. This limit is equivalent to 1,000 hours per year operation per CTG.

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. NOT APPLICABLE

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 of Operating Method):	

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 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.

<u>Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions</u>

1. Pollutant Emitted: **HAPS**	2. Total Percent Efficiency of Control: **N/A**
3. Potential Emissions: **8.7** lb/hour **9.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): **N/A** To tons/year	
6. Emission Factor: **6.0×10^{-4} lb/10^6 Btu, HHV (natural gas)** **4.1×10^{-3} lb/10^6 Btu, HHV (distillate fuel oil)** Reference: **Tables 3.1-3, 3.1-4, and 3.1-5 AP-42**	7. Emissions Method Code: **2 and 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: ☐ 5 years ☐ 10 years **N/A**

10. Calculation of Emissions:

Hourly Rate: (distillate fuel oil, 59°F)

$$\text{HAPS} = (4.1 \times 10^{-3}\ \text{lb}/10^6\ \text{Btu}) \times (2{,}122 \times 10^6\ \text{Btu/hr, HHV}) = 8.7\ \text{lb/hr}$$

Annual Rate: (natural gas, 59°F, 7,760 hrs/yr, distillate fuel oil, 59°F, 1,000 hrs/yr)

$$\text{HAPS} = [((6.0 \times 10^{-4}\ \text{lb}/10^6\ \text{Btu}) \times (1{,}915 \times 10^6\ \text{Btu/hr, HHV}) \times (7{,}760\ \text{hrs/yr})) + ((4.1 \times 10^{-3}\ \text{lb}/10^6\ \text{Btu}) \times (2{,}122 \times 10^6\ \text{Btu/hr, HHV}) \times (1{,}000\ \text{hrs/yr}))] \times (1\ \text{ton}/2{,}000\ \text{lb})$$

$$\text{HAPS} = 9.0\ \text{ton/yr}$$

11. Potential, Fugitive, and Actual Emissions Comment:

Distillate fuel oil consumption for CT4A and CT4B is limited to 30,753,623 gallons per year for both CTGs combined. This limit is equivalent to 1,000 hours per year operation per CTG.

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. NOT APPLICABLE

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 of Operating Method):	

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 of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

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

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

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **N/A**	
5. Visible Emissions Comment: **Rule 62-212.400(4)(c), F.A.C. (BACT)**	

Visible Emissions Limitation: Visible Emissions Limitation of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

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 **3**

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **Thermo Electron** Model Number: **42i-LS**	Serial Number: **40601214670**
5. Installation Date: **09/05/2007-09/07/2007**	6. Performance Specification Test Date: **11/17/2007-11/19/2007**
7. Continuous Monitor Comment: **Required by 40 CFR Part 75 (Acid Rain Program).**	

Continuous Monitoring System: Continuous Monitor **2** of **3**

1. Parameter Code: **O2**	2. Pollutant(s): **N/A**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **Servomex** Model Number: **1440**	Serial Number: **01440C1STD/2926**
5. Installation Date: **09/05/2007-09/07/2007**	6. Performance Specification Test Date: **11/17/2007-11/19/2007**
7. Continuous Monitor Comment: **Required by 40 CFR Part 75 (Acid Rain Program).**	

H. CONTINUOUS MONITOR INFORMATION

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

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

1. Parameter Code: **EM**	2. Pollutant(s): **CO**
3. CMS Requirement:	☒ Rule ☐ Other
4. Monitor Information Manufacturer: **Thermo Electron** Model Number: **48i**	Serial Number: **0601214675**
5. Installation Date: **09/05/2007-09/07/2007**	6. Performance Specification Test Date: **11/17/2007-11/19/2007**
7. Continuous Monitor Comment: **Required by Condition G.22. of Title V Air Operation Permit No. 1050234-016-AV.**	

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:	

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: **Attach. C** ☐ 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: **Attach. 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: __________ ☒ 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: **Attach. L** ☐ 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
☐ Attached, Document ID: __________
Test Date(s)/Pollutant(s) Tested: __________

☒ Previously Submitted, Date: **October 15, 2010**
Test Date(s)/Pollutant(s)
Tested: **September 2, 2010 /**
NO_x, CO, SO_2, and NH_3.

☐ 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

NOT APPLICABLE

1.	Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: ________ ☐ Not Applicable
2.	Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: ________ ☐ Not Applicable
3.	Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: ________ ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1.	Identification of Applicable Requirements: ☒ Attached, Document ID: **Attach. F**
2.	Compliance Assurance Monitoring: ☐ Attached, Document ID: ________ ☒ Not Applicable
3.	Alternative Methods of Operation: ☒ Attached, Document ID: **Attach. M** ☐ Not Applicable
4.	Alternative Modes of Operation (Emissions Trading): ☐ Attached, Document ID: ________ ☒ Not Applicable

Additional Requirements Comment

NOTE:

Emission Unit ID No. 018 (CT4A) and Emission Unit ID No. 019 (CT4B) are identical emission units.

The information provided in Section III. Emissions Unit Information, Section 8 for Emission Unit ID No. 018 is also applicable to Section 9 for EU ID No. 019 with the exception of identification numbers.

Section H, Continuous Monitor Information, for EU ID 019 is provided in the following table:

EU ID	Parameter	Manufacturer	Model No.	Serial No.	Installation Date	Performance Date
019	NO_x	Thermo Electron	42i-LS	4060121673	09/05/2007-09/07/2007	11/17/2007-11/19/2007
019	O_2	Servomex	1440	01440C1STD/2925	09/05/2007-09/07/2007	11/17/2007-11/19/2007
019	CO	Thermo Electron	48i	0601214674	09/05/2007-09/07/2007	11/17/2007-11/19/2007

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

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.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

   ☒ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

   ☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

   Relocatable Diesel Engines

3. Emissions Unit Identification Number: **7775047-001**

4. Emissions Unit Status Code: **A**	5. Commence Construction Date: **N/A**	6. Initial Startup Date: **N/A**	7. Emissions Unit Major Group SIC Code: **49**

8. Federal Program Applicability: (Check all that apply)

   ☐ Acid Rain Unit

   ☐ CAIR Unit

9. Package Unit:
   Manufacturer: **N/A** Model Number: **N/A**

10. Generator Nameplate Rating: **2.46** MW

11. Emissions Unit Comment:

    Relocatable diesel generator(s) with a maximum combined heat input rate of 25.74 MMBtu/hr, maximum combined diesel fuel consumption rate of 186.3 gallons per hour, and a maximum combined generation capacity of 2,460 kilowatts.

NOT APPLICABLE

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:

Emissions Unit Control Equipment/Method: Control __ of __

1. Control Equipment/Method Description:
2. Control Device or Method Code:

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: **25.74** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr Tons/day	
5. Requested Maximum Operating Schedule: hours/day weeks/year	days/week **2,970** hours/year
6. Operating Capacity/Schedule Comment: **Diesel engine-hours are limited to no more than 2,970 hours in any consecutive 12-month period.** **Maximum heat input is a combined total for three (3) 820 kW generator diesel engines.**	

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **N/A**		2. Emission Point Type Code: **1**
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **N/A**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: **N/A**		
5. Discharge Type Code: **V**	6. Stack Height: **15** feet	7. Exit Diameter: **1.0** feet
8. Exit Temperature: **1,000**°F	9. Actual Volumetric Flow Rate: **7,300** acfm	10. Water Vapor: **N/A** %
11. Maximum Dry Standard Flow Rate: **N/A** dscfm		12. Nonstack Emission Point Height: **N/A** feet
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)
15. Emission Point Comment: **Stack data shown is representative of a typical 820 kilowatt diesel generator. Actual stack parameters will vary depending on the engine manufacturer and model.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

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

1. Segment Description (Process/Fuel Type): **Internal Combustion Engine, Electric Generation, Distillate Oil (Diesel), Reciprocating**		
2. Source Classification Code (SCC): **2-01-001-01**	3. SCC Units: **Thousand gallons**	
4. Maximum Hourly Rate: **0.18**	5. Maximum Annual Rate: **554**	6. Estimated Annual Activity Factor: **N/A**
7. Maximum % Sulfur: **N/A**	8. Maximum % Ash: **N/A**	9. Million Btu per SCC Unit: **138 HHV (nominal)**
10. Segment Comment: **Annual rate based on 25.74 MMBtu/hr and 2,970 hours per year operation.**		

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

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
Diesel engine emissions will depend on manufacturer, model year, and model.			

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: lb/hour tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): To tons/year	
6. Emission Factor: Reference:	7. Emissions Method Code:
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: ☐ 5 years ☐ 10 years **N/A**
10. Calculation of Emissions:	
11. Potential, Fugitive, and Actual Emissions Comment: **Diesel engine emissions will depend on manufacturer, model year, and model.** **Diesel engine-hours are limited to no more than 2,970 hours in any consecutive 12-month period.**	

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.

NOT APPLICABLE

<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 of 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 of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

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

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

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **20** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Reference Method 9. Testing not required if liquid fuels are burned for less than 400 hours per year.**	
5. Visible Emissions Comment: **Rule 62-296.320(4)(b)1., F.A.C.**	

Visible Emissions Limitation: Visible Emissions Limitation of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this 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 ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

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: ____ ☒ Not Applicable

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: **Attach. 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: ____ ☒ 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: ____ ☐ Previously Submitted, Date:____
   ☒ Not Applicable

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
   ☐ Attached, Document ID: ____
   Test Date(s)/Pollutant(s) Tested: ____

   ☐ Previously Submitted, Date: ____
   Test Date(s)/Pollutant(s) Tested: ____

   ☐ 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

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

NOT APPLICABLE

1.	Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)): ☐ Attached, Document ID: ________ ☐ Not Applicable
2.	Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): ☐ Attached, Document ID: ________ ☐ Not Applicable
3.	Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) ☐ Attached, Document ID: ________ ☐ Not Applicable

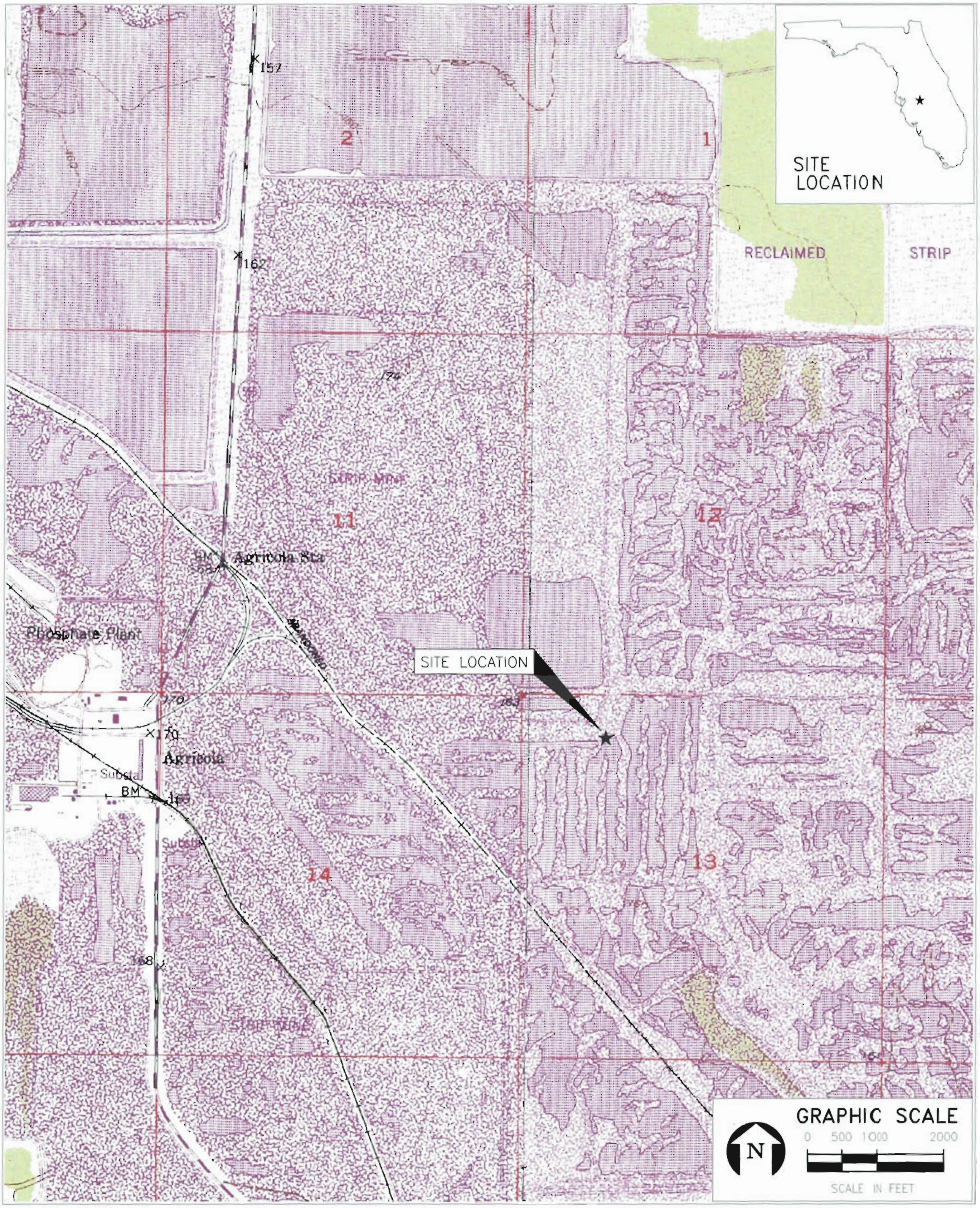
Additional Requirements for Title V Air Operation Permit Applications

1.	Identification of Applicable Requirements: ☒ Attached, Document ID: **Attach. F**
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 Trading): ☐ Attached, Document ID: ________ ☒ Not Applicable

Additional Requirements Comment

ATTACHMENT A

FACILITY LOCATION MAP



ATTACHMENT A.

HINES ENERGY COMPLEX

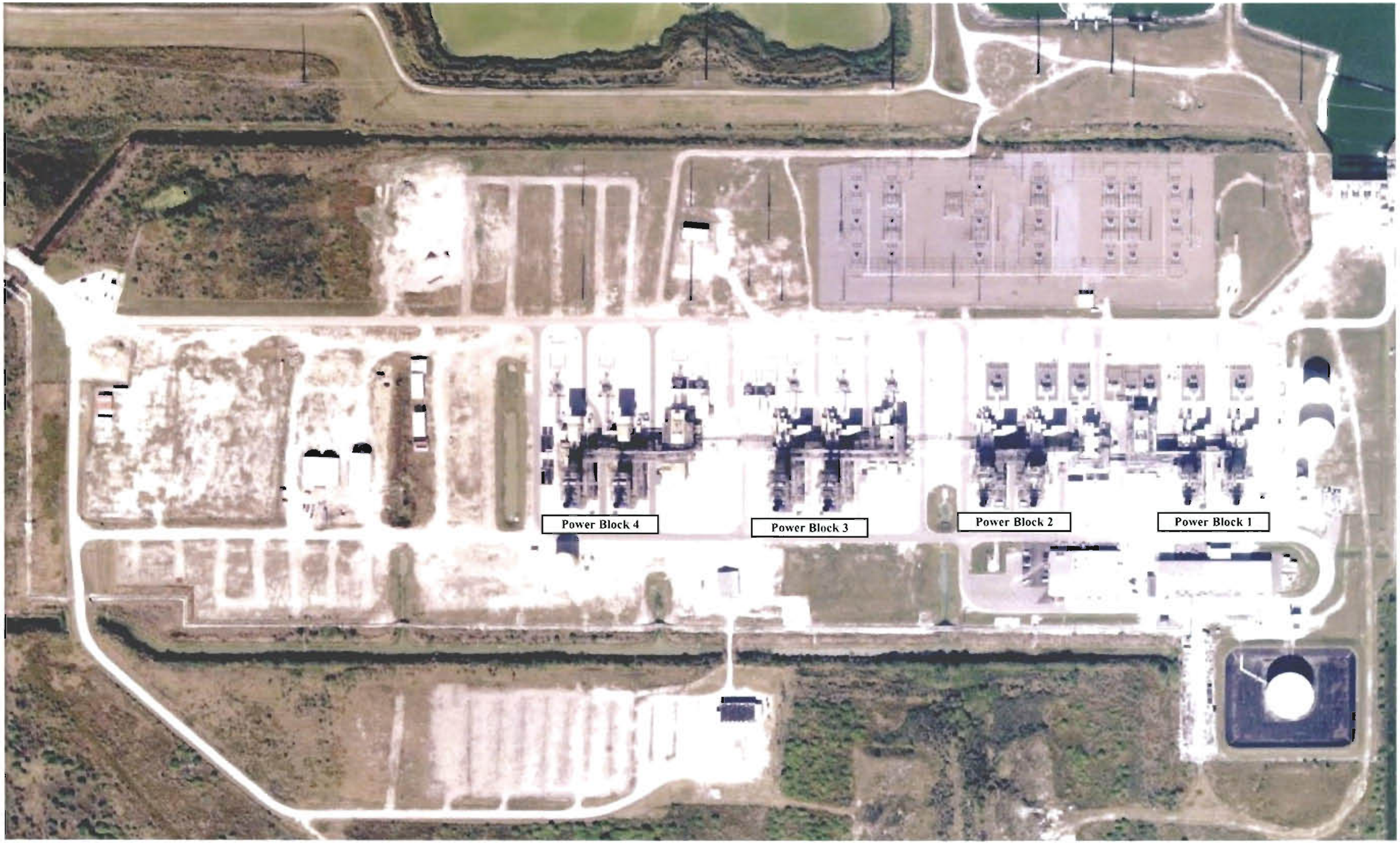
FACILITY LOCATION MAP

Sources: USGS Quads;Bradley Junction,FL, 1987, Homeland, FL, 1986; ECT, 2010.

Progress Energy

ATTACHMENT B

FACILITY PLOT PLANS



ATTACHMENT B-1

HINES ENERGY COMPLEX PLOT PLAN - OVERVIEW

Source: ECT, 2010.

Progress Energy

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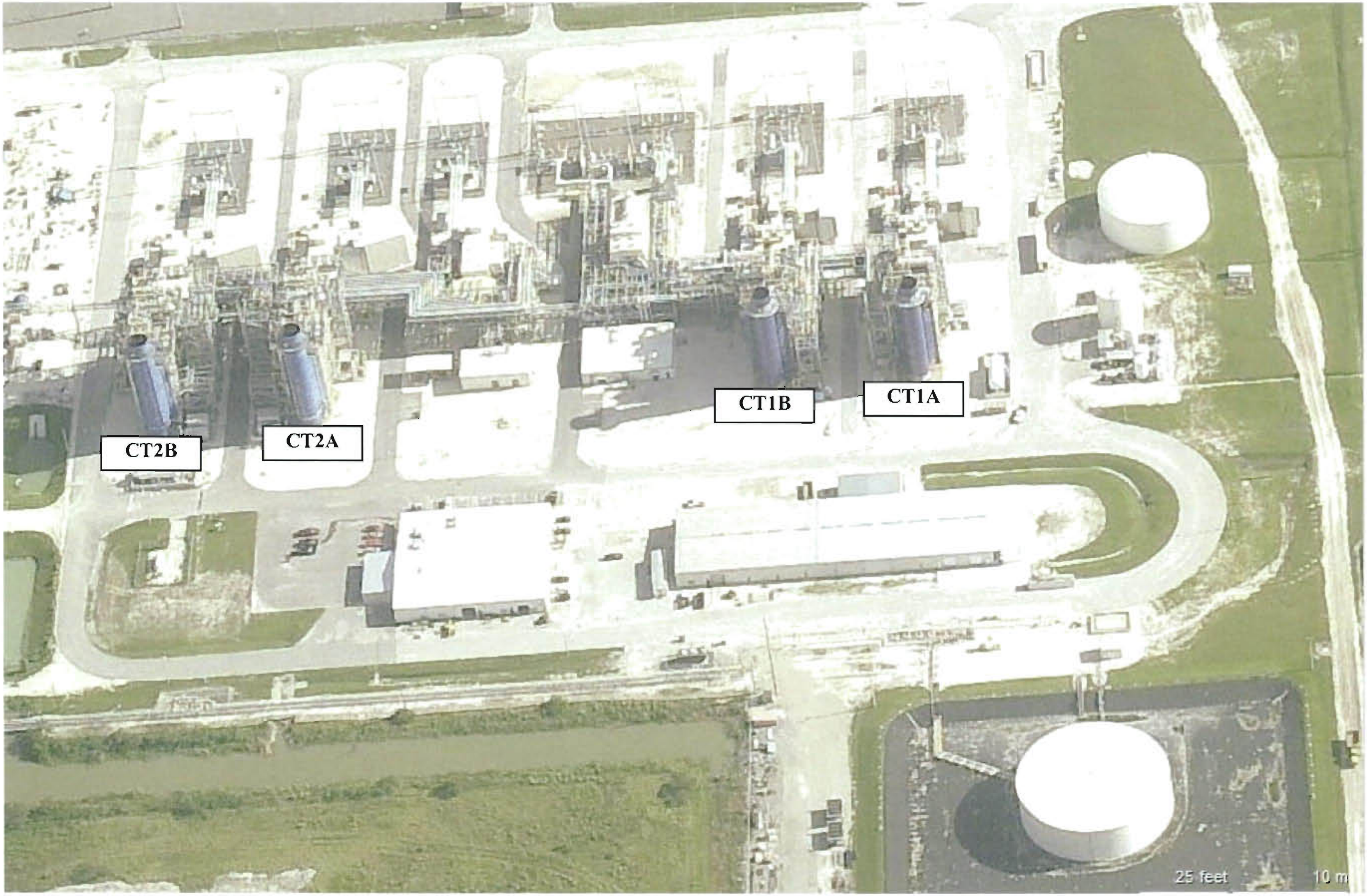

ATTACHMENT B-2

HINES ENERGY COMPLEX PLOT PLAN - POWER BLOCKS 1 AND 2

Source: ECT, 2010.

Progress Energy

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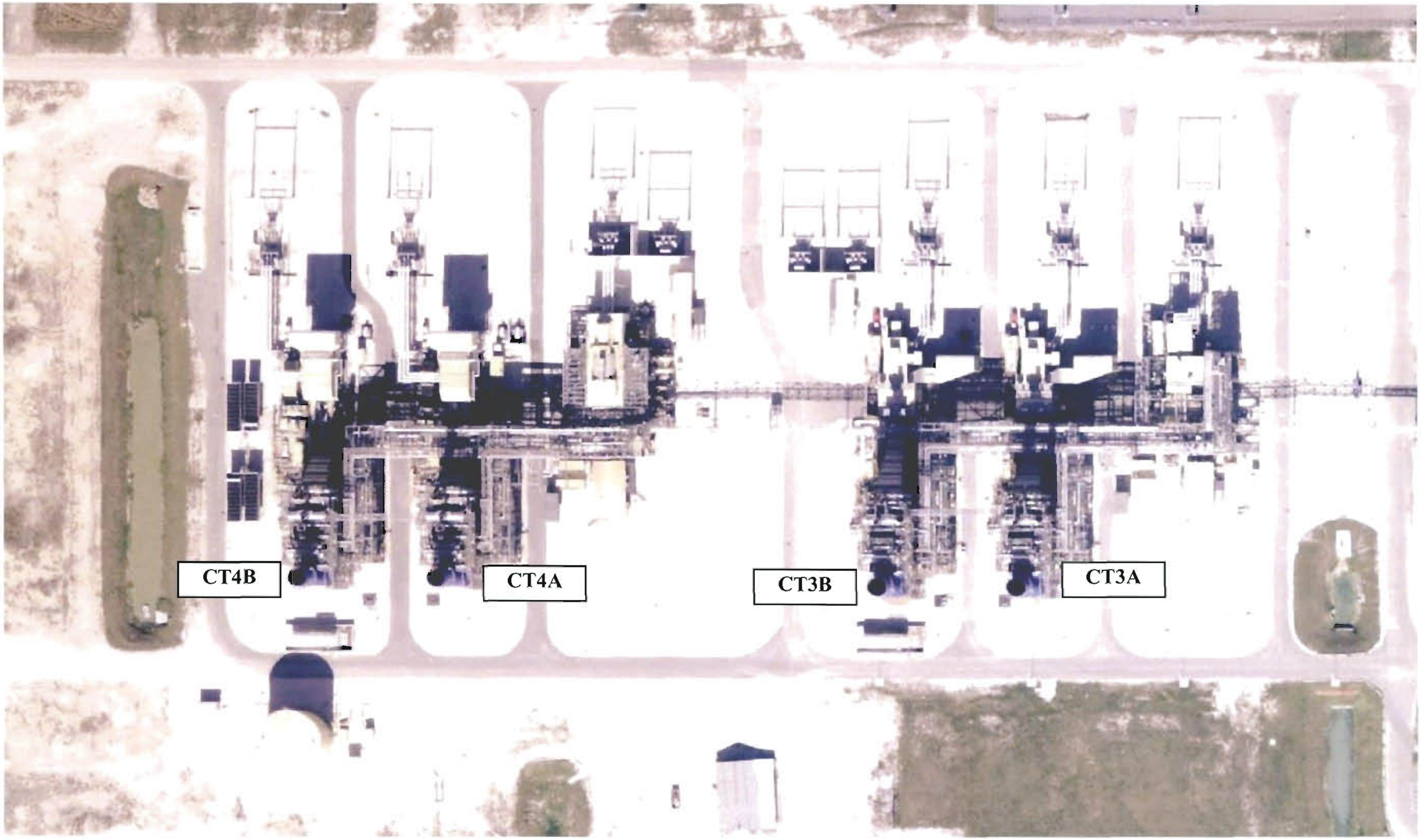

ATTACHMENT B-3

HINES ENERGY COMPLEX PLOT PLAN - POWER BLOCKS 3 AND 4

Source: ECT, 2010.

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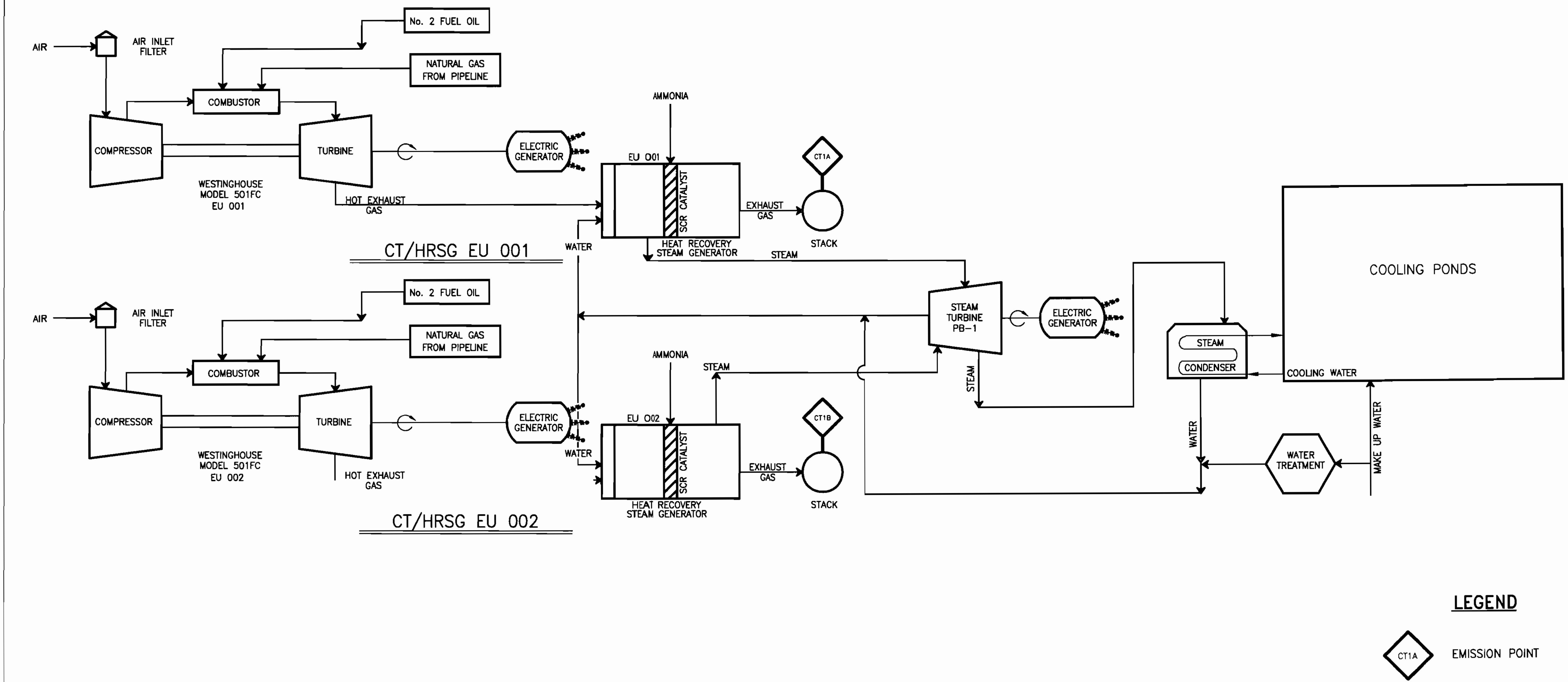
ATTACHMENT C

PROCESS FLOW DIAGRAMS



ATTACHMENT C-1.

HINES ENERGY COMPLEX PROCESS FLOW DIAGRAM

POWER BLOCK 1

Source: ECT, 2010.

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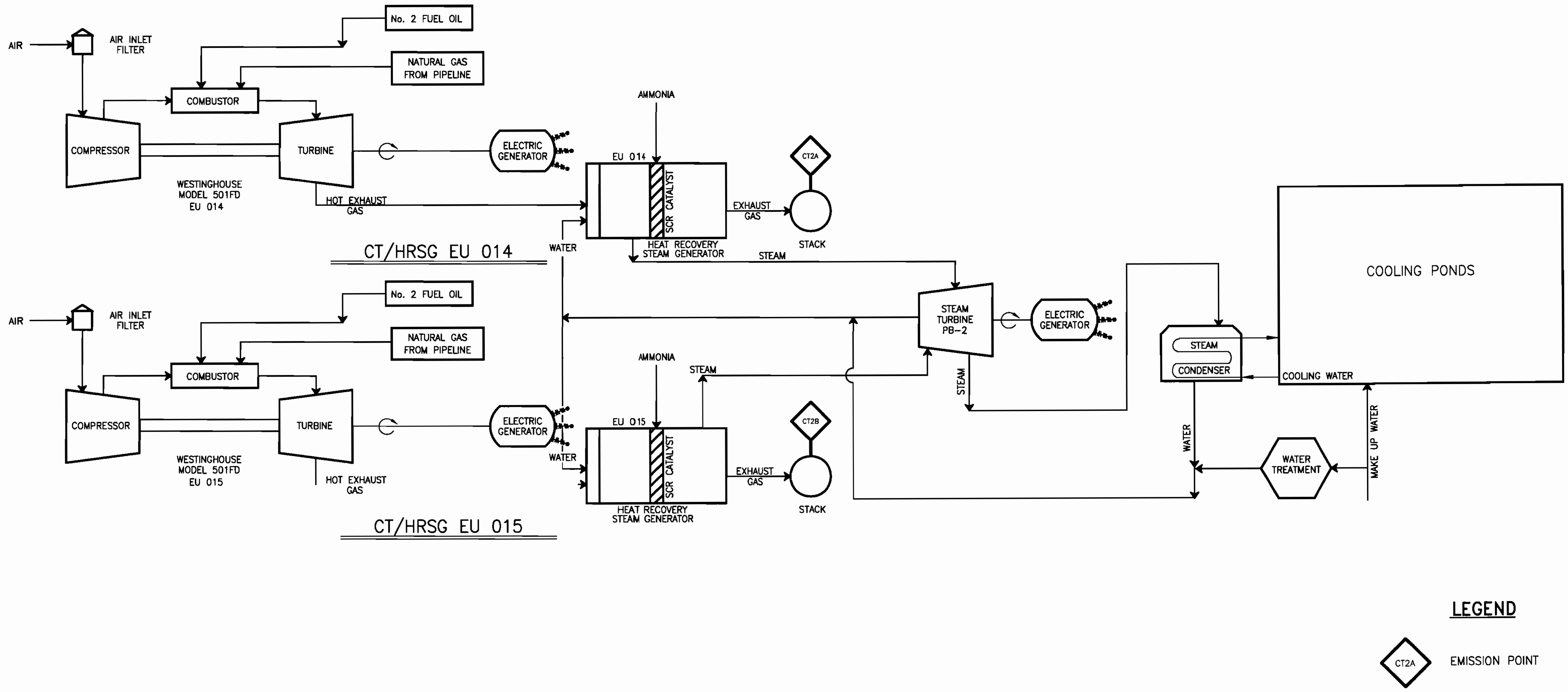

ATTACHMENT C-2.

HINES ENERGY COMPLEX PROCESS FLOW DIAGRAM

POWER BLOCK 2

Source: ECT, 2010.

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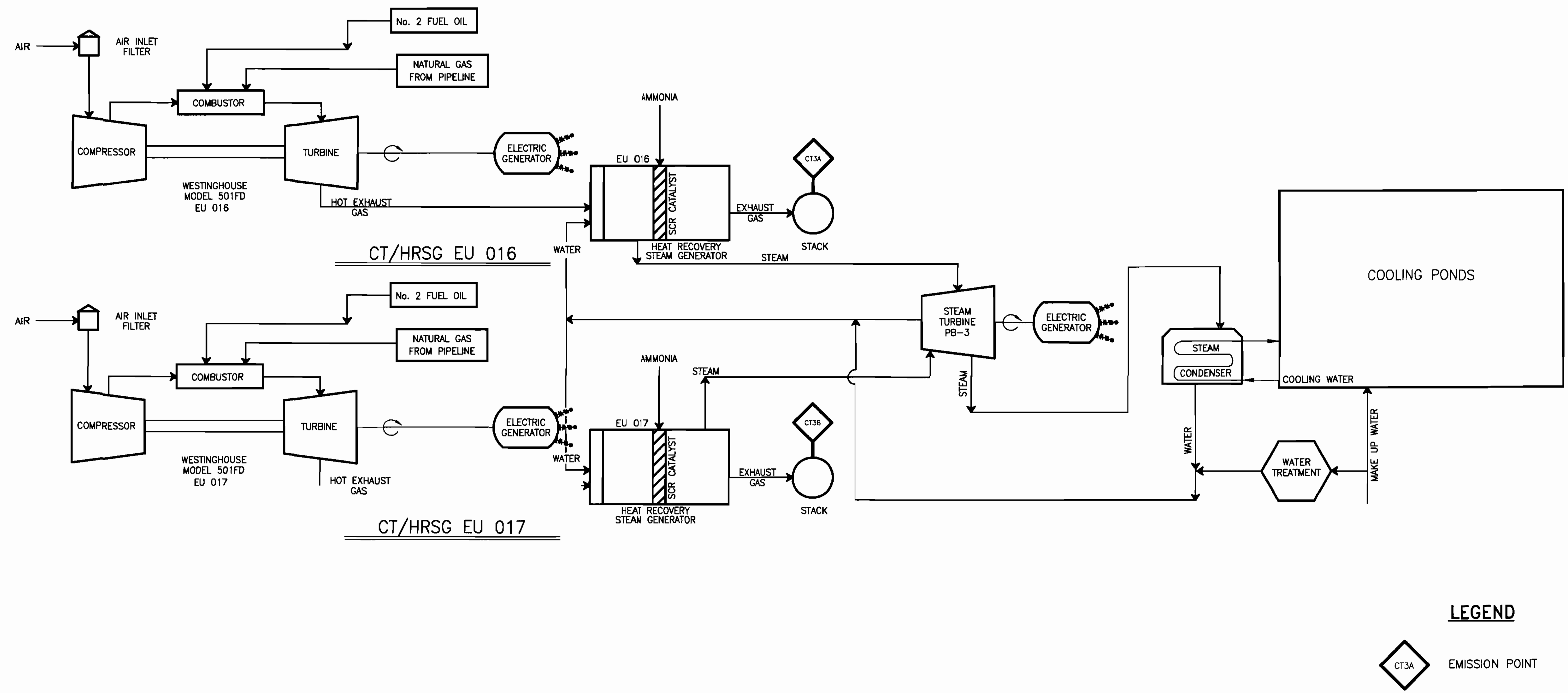

ATTACHMENT C-3.

HINES ENERGY COMPLEX PROCESS FLOW DIAGRAM

POWER BLOCK 3

Source: ECT, 2010.

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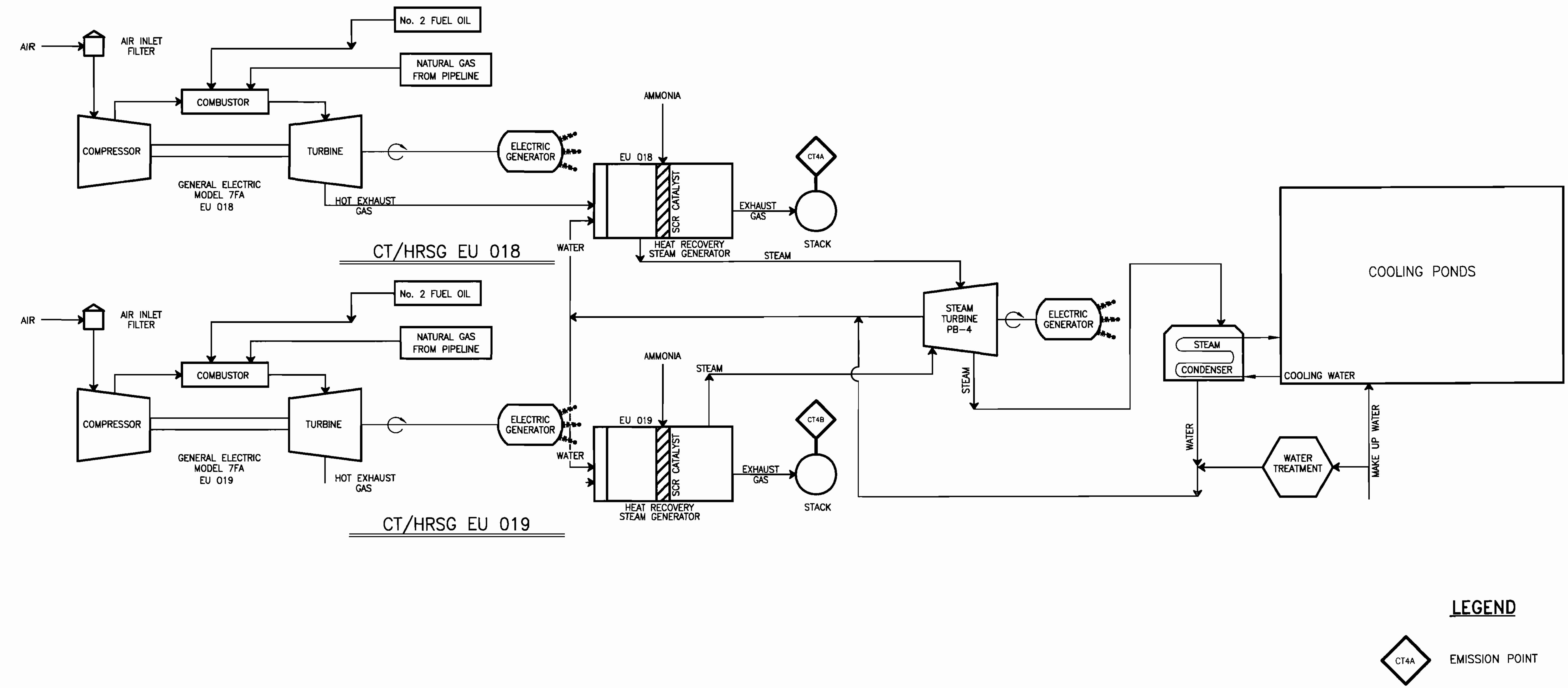
Nov 17, 2010 - 2:36pm by jroberts



ATTACHMENT C-4.

HINES ENERGY COMPLEX PROCESS FLOW DIAGRAM

POWER BLOCK 4

Source: ECT, 2010.

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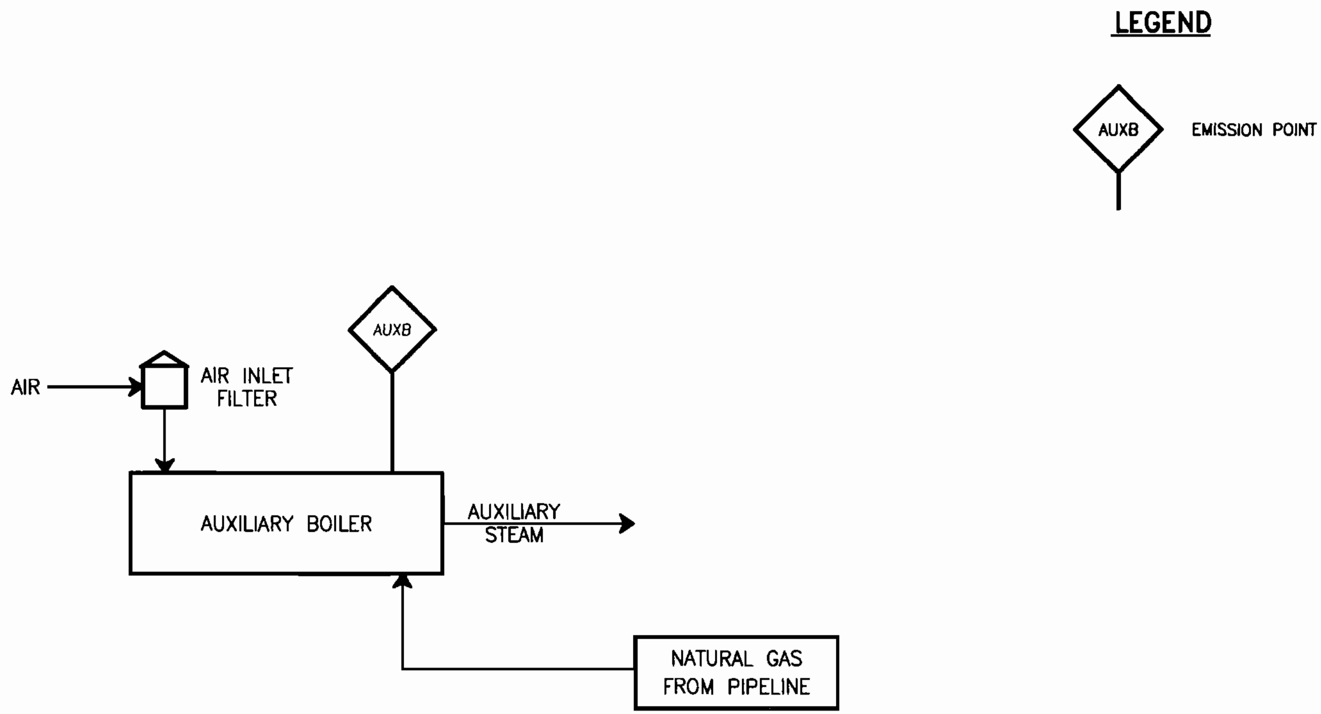

ATTACHMENT C-5.
HINES ENERGY COMPLEX
AUXILIARY BOILER PROCESS FLOW DIAGRAM

Source: ECT, 2010.

Progress Energy

ATTACHMENT D

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

ATTACHMENT D

HINES ENERGY COMPLEX
PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Unconfined particulate matter (PM) emissions that may result from operations at the Hines Energy Complex 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 as-needed 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 particulate.
- 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.

ATTACHMENT E

LIST OF INSIGNIFICANT ACTIVITIES

ATTACHMENT E

HINES ENERGY COMPLEX
LIST OF INSIGNIFICANT ACTIVITIES

1. Sand blaster, welding, lathes, hand-held tools, etc.
2. Diesel generator.
3. Fire water tank(s).
4. Brazing, soldering, or welding equipment.
5. Fire and safety equipment.
6. Surface coating operations within a single facility if the total quantity of coatings containing greater than 5.0 percent volatile organic compounds (VOCs), by volume, used is 6.0 gallons per day or less, averaged monthly provided:
   a. Such operations are not subject to a volatile organic compound reasonably available control technology (RACT) requirement of Chapter 62-296, F.A.C.
   b. The amount of coatings used shall include any solvents and thinners used in the process including those used for cleanup.
7. Vehicle fueling station with storage: gasoline and diesel.
8. Hydraulic oil storage (306, 300, 200, and 166 gallons).
9. Lubricating oil storage tank: 10,000-gallon capacity (PB1).
10. Two lubricating oil storage tanks: 6,200-gallon capacity each (PB2 and PB3).
11. Lubricating oil storage tank: 3,600-gallon capacity (PB4).
12. No. 2 fuel oil storage tank: 1.0×10^6-gallon capacity.
13. No. 2 fuel oil storage tank: 3.8×10^6-gallon capacity.
14. Four ammonia storage tanks: 30,000-gallon capacity each.
15. Sodium hypochlorite storage tank: 10,000-gallon capacity.
16. Fuel oil loading and unloading activities.
17. Lubricating oil vents with demisters.
18. Use and storage of nonhalogenated solvents.

Note: Items 8 through 18 are included in the current Title V air operation permit (Permit No. 1050234-016-AV) as *unregulated* emission units and activities. However, each of these activities qualifies as an *insignificant activity* as defined by Rule 62-213.430(6)(b), F.A.C.. Specifically, each activity listed meets the following criteria specified in Rule 62-213.430(6)(b), F.A.C.:

1. The activities are not subject to any unit-specific applicable requirement.
2. The activities, in combination with other units and activities proposed as insignificant, do not cause the facility to exceed any major source threshold(s) as defined in Subparagraph 62-213.420(3)(c)1., F.A.C., unless it is acknowledged in the permit application that such units or activities would cause the facility to exceed such threshold(s).
   [The Hines Energy Complex is a major source for both criteria and hazardous air pollutants due to regulated emission unit potential emissions.]

3. The activities do not have the potential to exceed the following emission rates:
   a. 500 pounds per year of lead or lead compound.
   b. 1,000 pounds per year of any individual hazardous air pollutant
   c. 2,500 pounds per year of total hazardous air pollutants
   d. 5.0 tons per year of any other regulated air pollutant.

ATTACHMENT F

IDENTIFICATION OF APPLICABLE REQUIREMENTS

ATTACHMENT F

HINES ENERGY COMPLEX
IDENTIFICATION OF APPLICABLE REQUIREMENTS

A. FACILITYWIDE REQUIREMENTS

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 March 16, 2008

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

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective March 11, 2010

62-210.300, F.A.C.:	Permits Required
62-210.300(1), F.A.C.:	Air Construction Permits
62-210.300(2), F.A.C.:	Air Operation Permits
62-210.300(3), F.A.C.:	Exemptions
62-210.300(5), F.A.C.:	Notification of Startup
62-210.300(6), F.A.C.:	Emissions Unit Reclassification
62-210.300(7), F.A.C.:	Transfer of Air Permits
62-210.350, F.A.C.:	Public Notice and Comment
62-210.350(1), F.A.C.:	Public Notice of Proposed Agency Action
62-210.350(2), F.A.C.:	Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review

ATTACHMENT F

HINES ENERGY COMPLEX
IDENTIFICATION OF APPLICABLE REQUIREMENTS

62-210.350(3), F.A.C.:	Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources
62-210.360, F.A.C.:	Administrative Permit Corrections
62-210.370(2), F.A.C.:	Computation of Emissions
62-210.370(3), F.A.C.:	Annual Operating Report for Air Pollutant Emitting Facility
62-210.650, F.A.C.:	Circumvention
62-210.700, F.A.C.:	Excess Emissions
62-210.900, F.A.C.:	Forms and Instructions
62-210.900(1), F.A.C.:	Application for Air Permit – Long Form, Form and Instructions
62-210.900(5), F.A.C.:	Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions
62-210.900(7), F.A.C.:	Application for Transfer of Air Permit – Title V and Non-Title V Source

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective June 29, 2009

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

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective March 11, 2010

62-213.205, F.A.C.:	Annual Emissions Fee
62-213.400, F.A.C.:	Permits and Permit Revisions Required
62-213.405, F.A.C.:	Concurrent Processing of Permit Applications
62-213.410, F.A.C.:	Changes without Permit Revision
62-213.412, F.A.C.:	Immediate Implementation Pending Revision Process
62-213.415, F.A.C.:	Trading of Emissions within a Source
62-213.420, F.A.C.:	Permit Applications
62-213.430, F.A.C.:	Permit Issuance, Renewal, and Revision
62-213.440, F.A.C.:	Permit Content
62-213.450, F.A.C.:	Permit Review by EPA and Affected States
62-213.460, F.A.C.:	Permit Shield
62-213.900, F.A.C.:	Forms and Instructions
62-213.900(1), F.A.C.:	Major Air Pollution Source Annual Emissions Fee Form
62-213.900(7), F.A.C.:	Statement of Compliance Form

ATTACHMENT F

HINES ENERGY COMPLEX
IDENTIFICATION OF APPLICABLE REQUIREMENTS

62-213.900(8), F.A.C.: Responsible Official Notification Form

CHAPTER 62-256, F.A.C.: OPEN BURNING AND FROST PROTECTION FIRES, effective October 6, 2008

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective March 11, 2010

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

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective February 12, 2004

62-297.310, F.A.C.:	General Test Requirements
62-297.320, F.A.C.:	Standards for Persons Engaged in Visible Emissions Observations
62-297.401, F.A.C.:	Compliance Test Methods
62-297.440, F.A.C.:	Supplementary Test Procedures
62-297.620, F.A.C.:	Exceptions and Approval of Alternate Procedures and Requirements

Miscellaneous:

CHAPTER 28-106, F.A.C.: DECISIONS DETERMINING SUBSTANTIAL INTERESTS, effective December 24, 2007

CHAPTER 62-110, F.A.C.: EXCEPTION TO THE UNIFORM RULES OF PROCEDURE, effective July 1, 1998

B. POWER BLOCK 1: Two Westinghouse 501fc Combustion Turbines With Unfired Heat Recovery Steam Generators; Eu Id Nos. 001 And 002)

POWER BLOCK 2: Two Westinghouse 501fd Combustion Turbines With Unfired Heat Recovery Steam Generators; Eu Id Nos. 014 And 015)

POWER BLOCK 3: Two Westinghouse 501fd Combustion Turbines With Unfired Heat Recovery Steam Generators; Eu Id Nos. 016 And 017)

ATTACHMENT F

HINES ENERGY COMPLEX
IDENTIFICATION OF APPLICABLE REQUIREMENTS

<u>POWER BLOCK 4</u>: Two General Electric 7fa Combustion Turbines With Unfired Heat Recovery Steam Generators; Eu Id Nos. 018 And 019)

<u>ACID RAIN PROGRAM (ARP)</u>

40 CFR 72:	Permits Regulation
40 CFR 75:	Continuous Emissions Monitoring
40 CFR 77:	Excess Emissions
40 CFR 78:	Appeal Procedures

<u>CLEAN AIR INTERSTATE RULE (CAIR)</u>

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

<u>NEW SOURCE PERFORMANCE STANDARDS</u>

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 March 11, 2010

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

ATTACHMENT F

HINES ENERGY COMPLEX
IDENTIFICATION OF APPLICABLE REQUIREMENTS

POWER BLOCK 1 - FINAL Permit No. 1050234-016-AV, Section III., Subsection A, Permit Condition Nos. A.0 – A.25.
POWER BLOCK 2 - FINAL Permit No. 1050234-016-AV, Section III., Subsection A, Permit Condition Nos. E.1 – E.23.
POWER BLOCK 3 - FINAL Permit No. 1050234-016-AV, Section III., Subsection A, Permit Condition Nos. F.0 – F.26.
POWER BLOCK 4 - FINAL Permit No. 1050234-016-AV, Section III., Subsection A, Permit Condition Nos. G.1 – G.29.

[Please see Attachment H for requested changes to the current Title V Air Operation Permit for Power Blocks 1 through 4.]

C. <u>ONE AUXILIARY STEAM BOILER; EU ID No. 003</u>

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 Dc: Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units
§60.40c: Applicability and Delegation of Authority
§60.41c: Definitions

[Note: NSPS Subpart Dc does not contain any emission standards, monitoring, or recordkeeping requirements that are applicable to natural gas-fired units.]

Rule 62-296.406, F.A.C.: Fossil Fuel Steam Generators with less than 250 Million Btu Per Hour Heat Input.

FINAL Permit No. 1050234-016-AV, Section III, Subsection A, Permit Condition Nos. B.1 through B.15.

<u>Note</u>: Current Hines Energy Complex Title V permit is Permit No. 1050234-017-AV, which includes the CAIR Part. Permit No. 1050234-016-AV contains the specific permit conditions.

ATTACHMENT G

COMPLIANCE REPORT

ATTACHMENT G

HINES ENERGY COMPLEX
COMPLIANCE REPORT

Attachment F to this Title V operation permit renewal application identifies the requirements that are applicable to the emission units that comprise this Title V source.

A copy of the most recent Hines Energy Complex Annual Statement of Compliance, Title V Source, is provided in this attachment.

Progress Energy

February 23, 2011 CERTIFIED MAIL NO: 7009 3410 0002 3155 7957

Mr. Bill Schroeder
Florida Department of Environmental Protection
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637

Re: Florida Power Corporation dba Progress Energy Florida Inc.
Hines Energy Complex- 2010 Annual Title V Compliance Certification
Title V Permit Number 1050234-016-AV

Dear Mr. Schroeder:

Progress energy Florida submits the enclosed Title V Compliance Certification statement for the 2010 reporting year for the above reference facility.

Please contact Mr. Tommy Oneal at (863) 519-6119, if you have any questions.

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

Sincerely,

Martin J. Drango

Martin J. Drango, P.E.
Plant Manager

Attachment

cc: Ms. Roselyn Hughes, EPA Region IV

bcc: Tommy Oneal, HE-44
Chris Bradley, PEF-903 (e-mail)
Files 10.2.2

Roselyn Hughes
EPA Region IV
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

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FEB 24 2011

7009 3410 0002 3155 7957

Sent To Mr. Bill Schroeder
Street, Apt. No.; or PO Box No. FDEP
13051 North Telecom Parkway
City, State Temple Terrace, FL 33637

PS Form

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Bill Schroeder
FDEP
13051 North Telecom Parkway
Temple Terrace, FL 33637

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Dept. of Environmental Protection
☐ Agent
☐ Addressee

B. Received by (Printed Name)
C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

FEB 25 2011

Southwest District

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label) 7009 3410 0002 3155 7957

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

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)

X **Annual Requirement**	☐ **Transfer of Permit**	☐ **Permanent Facility Shutdown**

REPORTING PERIOD*	REPORT DEADLINE**
January 1 through December 31 of 2010 (year)	March 1, 2011

*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: Florida Power Corporation d/b/a Progress Energy Florida

Site Name: Hines Energy Complex Facility ID No. 1050234-017-AV County: Polk

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.

_X_ **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.
6. 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 - 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.

Martin J. Drango — 2/23/11

(Signature of Title V Source Responsible Official) — *(Date)*

Name: Martin J. Drango, P.E. 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.

Patricia Q. West — 2/22/11

(Signature of Acid Rain Source Designated Representative) — *(Date)*

Name: Patricia Q. West Title: Manager, Env. Energy Supply- Florida

{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).}

Progress Energy Florida
Hines Energy Complex – **PB1**
Deviations from Permit Conditions

During January 1st to June 30th 2010, there were no deviations for PB1. This was previously summarized in the quarterly excess emissions report.

Date	Time	Duration	Parameter	Description

No deviations for Unit 1A and 1B.

Progress Energy Florida
Hines Energy Complex – **PB2**
Deviations from Permit Conditions

During January 1st to June 30th 2010, the following deviations occurred for Unit **2A**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
3/26/10	1700-2300	7 hours	NOx, CO	Tuning
3/27/10	0000	1 hour	CO	Tuning
3/28/10	0400	1 hour	NOx	Tuning

During January 1st to June 30th 2010, the following deviations occurred for Unit **2B**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
1/16/10	1000	1 hour	NOx, CO	Malfunction
3/26/10	1600-2200	7 hours	NOx, CO	Tuning
3/26/10	2300	1 hour	CO	Tuning

Progress Energy Florida
Hines Energy Complex – **PB3**
Deviations from Permit Conditions

During January 1st to June 30th 2010, the following deviations occurred for Unit **3A**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
04/06/10	1400-1700	4 hours	NOx, CO	Tuning
04/06/10	1800	1 hour	CO	Tuning

During January 1st to June 30th 2010, the following deviations occurred for Unit **3B**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
04/06/10	2100	1 hour	NOx, CO	Tuning
04/06/10	2200	1 hour	NOx	Tuning
04/10/10	2100, 2200	2 hours	NOx, CO	Tuning

Progress Energy Florida
Hines Energy Complex – **PB4**
Deviations from Permit Conditions

During January 1st to June 30th 2010, the following deviations occurred for Unit **4A**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
06/22/10	0100-0200	2 hours	CO	Malfunction
04/20/10	0700- 0800, 1800	3 hours	NOx, CO	Tuning
04/21/10	1300, 2100, 2300	3 hour	NOx, CO	Tuning
04/21/10	1400, 1500	2 hours	NOx	Tuning
04/23/10	0100-0700	8 hours	NOx, CO	Tuning
04/23/10	0800- 2300	16 hours	CO	Tuning
04/24/10	0600-0700	2 hours	NOx, CO	Tuning

During January 1st to June 30th 2010, the following deviations occurred for Unit **4B**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
04/21/10	1000	1 hour	NOx, CO	Tuning
04/22/10	0600, 0800-1100	5 hours	NOx, CO	Tuning
04/22/10	1200	1 hour	NOx	Tuning
04/23/10	0000-0700	8 hours	NOx, CO	Tuning
04/23/10	0800-2300	16 hours	CO	Tuning
04/24/10	0000	1 hour	CO	Tuning
04/25/10	0700-1100	5 hours	NOx, CO	Tuning

Progress Energy Florida
Hines Energy Complex – **PB1**
Deviations from Permit Conditions

During July 1st to December 31st 2010, there were no deviations for PB1. This was previously summarized in the quarterly excess emissions report.

Date	Time	Duration	Parameter	Description

No deviations for Unit 1A and 1B.

Progress Energy Florida
Hines Energy Complex – **PB2 (Unit 014)**
Deviations from Permit Conditions

During July 1st to December 31st 2010, the following deviations occurred for Unit **2A**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
12/26/10	0800-0900	NOx, CO	2 hours	Malfunction

10/20/10- Progress Energy Hines Title V Air Operation Permit105234-016-AV, Section III, Subsection H. Specific Condition No. 8(b), details that after the completion of a Relative Accuracy Test (RATA), the test must be submitted to the Department no later than 45 days. However, Progress Energy (PEF) submitted the report 5 days late. PEF is submitting this notice as a deviation from a permit condition for the above described unit.

During July 1st to December 31st 2010, the following deviations occurred for Unit **2B (Unit-015)**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
7/6/10	0700 -0800	2 hours	NOx, CO	Malfunction

10/20/10- Progress Energy Hines Title V Air Operation Permit105234-016-AV, Section III, Subsection H. Specific Condition No. 8(b), details that after the completion of a Relative Accuracy Test (RATA), the test must be submitted to the Department no later than 45 days. However, Progress Energy (PEF) submitted the report 5 days late. PEF is submitting this notice as a deviation from a permit condition for the above described unit.

Progress Energy Florida
Hines Energy Complex – **PB3**
Deviations from Permit Conditions

During July 1st to December 31st 2010, the following deviations occurred for Unit **3A (Unit-016)**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
10/30/10	0200-0300	2 hours	CO	Malfunction

10/20/10- Progress Energy Hines Title V Air Operation Permit105234-016-AV, Section III, Subsection H. Specific Condition No. 8(b), details that after the completion of a Relative Accuracy Test (RATA), the test must be submitted to the Department no later than 45 days. However, Progress Energy (PEF) submitted the report 5 days late. PEF is submitting this notice as a deviation from a permit condition for the above described unit.

During July 1st to December 31st 2010, the following deviations occurred for Unit **3B (Unit-017)**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
12/16/10	1200	1 hour	CO	Malfunction
12/17/10	1200-1400	3 hours	NOX, CO	Tuning

10/20/10- Progress Energy Hines Title V Air Operation Permit105234-016-AV, Section III, Subsection H. Specific Condition No. 8(b), details that after the completion of a Relative Accuracy Test (RATA), the test must be submitted to the Department no later than 45 days. However, Progress Energy (PEF) submitted the report 5 days late. PEF is submitting this notice as a deviation from a permit condition for the above described unit.

Progress Energy Florida
Hines Energy Complex – **PB4**
Deviations from Permit Conditions

During July 1st to December 31st 2010, the following deviations occurred for Unit **4A (Unit-018)**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
7/14/10	0800	1 hour	CO	Malfunction
7/17/10	1400-1500	2 hours	NOx, CO	Tuning
7/31/10	0200-0300	2 hours	CO	Malfunction

10/20/10- Progress Energy Hines Title V Air Operation Permit105234-016-AV, Section III, Subsection H. Specific Condition No. 8(b), details that after the completion of a Relative Accuracy Test (RATA), the test must be submitted to the Department no later than 45 days. However, Progress Energy (PEF) submitted the report 5 days late. PEF is submitting this notice as a deviation from a permit condition for the above described unit.

During July 1st to December 31st 2010, the following deviations occurred for Unit **4B (Unit-019)**. These were previously summarized in the quarterly excess emissions reports.

Date	Time	Duration	Parameter	Description
6/22/10	0100-0200	2 hours	CO	Malfunction
12/17/10	0900-1300	5 hours	NOx, CO	Tuning

10/20/10- Progress Energy Hines Title V Air Operation Permit105234-016-AV, Section III, Subsection H. Specific Condition No. 8(b), details that after the completion of a Relative Accuracy Test (RATA), the test must be submitted to the Department no later than 45 days. However, Progress Energy (PEF) submitted the report 5 days late. PEF is submitting this notice as a deviation from a permit condition for the above described unit.

ATTACHMENT H

REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT

ATTACHMENT H

HINES ENERGY COMPLEX
REQUESTED CHANGES TO CURRENT TITLE V PERMIT

Requested changes to Title V Air Operation Permit No. 1050234-016-AV for the Florida Power Corporation d/b/a Progress Energy Florida, Inc. (PEF), Hines Energy Complex (HEC), are provided in the following. The requested changes are shown in red with ~~strikethrough~~ for deletion and <u>underline</u> for insertion.

The current Hines Energy Center Title V air operation permit contains permit conditions for each power block CTG/HRSG unit that addresses excess emissions. The Title V air operation permit also addresses continuous emissions monitoring system (CEMS) data exclusion procedures for each power block CTG/HRSG unit. These conditions specify the allowable duration of excess emissions during startups and shutdowns in units of hours. *Consistent with current FDEP permitting practice, PEF requests that the durations of allowable excess emissions be specified in units of minutes instead of hours where applicable.*

Table of Contents:

1. *Table of Contents, III. Emission Unit(s) and Conditions:* The requested change is to identify the specific model of combustion turbines identified as Emission Units 001 & 002 and Emission Units 0018 & 0019. Therefore, the requested changes are as follows:

   III. Emissions Unit(s) and Conditions

   A. Emission Units 001 & 002, Westinghouse 501F<u>C</u> Combined Cycle Combustion Turbines (CCCT): Power Block 1 (PB 1)
   B. Emission Unit 003, Steam Boiler
   C. Reserved
   D. Emission Unit 001 (7775047): Relocatable Diesel Fired Generator(s)
   E. Emission Units 014 & 015, Westinghouse 501FD CCCT: (PB 2)
   F. Emission Units 016 & 017, Westinghouse 501FD CCCT: (PB 3)
   G. Emission Units 018 & 019, <u>General Electric 7FA CCCT: (PB 4)</u> ~~Power Block 4~~
   H. Common Conditions

Subsection A:

2. *Section III, Subsection A, Specific Condition A.3 – Methods of Operation* - Fuels. The requested change is to correct the fuel oil heat content basis for determining the annual maximum quantity of No. 2 distillate oil that can be combusted in the CT.

ATTACHMENT H

HINES ENERGY COMPLEX
REQUESTED CHANGES TO CURRENT TITLE V PERMIT

Based on a heat input of 2,020 MMBtu/hr, fuel oil heat content of 138,000 Btu/gal, and a total of 1,000 hours per year operation, fuel oil consumption for two turbines is ($2{,}020 \times 10^6$ Btu/hr) × (1 gal/138,000 Btu) × (1,000 hrs/yr) = 14,637,681 gallons per year. Therefore, the requested changes are as follows:

A.3. Methods of Operation - Fuels. Only natural gas, having a maximum sulfur content of 1 grain per 100 cf of natural gas, or low sulfur fuel oil having a maximum sulfur content of 0.05%, by weight, shall be fired in each combustion turbine at all times. The maximum allowable fuel oil consumption for the two turbines is ~~13,762,806~~ <u>14,637,681</u> gallons per year, which is equivalent to an aggregate of 1,000 hours per year of operation at full load.

3. *Section III, Subsection A, Specific Condition A.5 – Emission Limitations:* The requested change is to correct the basis for determining emission of VOC from "wet" to a "dry" basis, the potential annual emissions for PM/PM_{10}, and determination of NO_x emissions on a ppmvd basis and at ISO conditions as noted in Footnotes "a" and "h" of the table. Per footnote "b", annual emissions for natural gas are based on two CTs operating at full load for 8,760 hours per year per CT. For PM/PM_{10}, natural gas annual emissions are (15.6 lb/hr) × (2 CTs) × (8,760 hrs/yr) × (1 ton/2,000 lbs) = 137 tpy. Per footnote "b", annual emissions for fuel oil are based on two CTs operating at full load for a total of 1,000 hours per year for both CTs. For PM/PM_{10}, annual fuel oil emissions are (44.8 lb/hr) × (1,000 hrs/yr) × (1 ton/2,000 lbs) = 22.4 tpy. Therefore, the requested changes are as follows:

A.5. <u>Emission Limitations</u>

Emissions from the CT, while firing natural gas or low sulfur fuel oil, shall not exceed the following (at 59 °F reference temperature for NO_x emissions) (except during periods of startup, shutdown and malfunction.):

ATTACHMENT H

HINES ENERGY COMPLEX
REQUESTED CHANGES TO CURRENT TITLE V PERMIT

Pollutant	Fuel	Basis [g]	CT Allowables	
			Lbs/hr	TPY[b]
NO_x [a]	Gas	12 ppmvd[h]	73 [i]	639
	Oil	42 ppmvd [c][h]	305	153
VOC [d]	Gas	7 ppmv~~w~~d	10.4	91
	Oil	10 ppmv~~w~~d	19.0	5.6
SO_2	Gas[f]		4.7	44
	Oil[f]		94	47
CO	Gas	25 ppmvd	77	675
	Oil	30 ppmvd	93	47
VE	Gas	10 percent opacity		
	Oil	20 percent opacity		
PM/PM_{10}	Gas		15.6	~~79~~137
	Oil[e]		44.8	~~21~~22.4

a. Pollutant emission rates may vary depending on ambient conditions (compressor inlet temperatures) and the CT characteristics. Manufacturer's curves for the NO_x emission rate correction to other temperatures at different loads were provided to the DEP for review and are now a part of this permit (see Appendix G-1). The manufacturer's curves shall be used to establish pollutant emission rates over a range of temperatures for the purpose of compliance determination. Emission limitations in lbs/hr/CT of NO_x are blocked 24-hour averages (midnight to midnight) and are calculated as follows:

NO_x emissions shall be determined continuously by a Continuous Emissions Monitoring System (CEMS). A CEMS operated and maintained in accordance with 40 CFR 75 shall be used. Compliance with the NO_x emissions standards in the above table shall be demonstrated with this CEMS system based on a 24-hour block average. Based on CEMS data at the end of each operating day, new 24-hour average emission rates, both actual and allowable (based on compressor inlet temperatures) are calculated from the arithmetic average of all valid hourly emission rates during the previous 24 operating hours. Valid hourly emission rates shall not include periods of startup (including fuel switching), DLN tuning, shutdown, or malfunction as defined in

Rule 62-210.200, F.A.C., where emissions exceed the NO_x standard. These excess emission periods shall be reported as required in 40 CFR 60.7(b). A valid hourly emission rate shall be calculated for each hour in which two NO_x and carbon dioxide (or oxygen) concentrations are obtained at least 15 minutes apart. When monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate the 24-hour block average.

h. At 15 percent O_2, ~~not~~ ISO corrected.

4. *Section III, Subsection A, Specific Condition A.5.1 – Emission Limitations:* The requested change is to incorporate the requested changes in Specific Condition A.5.1.i in summary table form. Therefore, the requested addition is as follows:

Pollutant	**Fuel**	**Target**(Footnote)	**CT Allowable**(Footnote)
Ammonia	Gas	10 ppmvd	15 ppmvd
	Oil	10 ppmvd	15 ppmvd

Footnote: Subject to the requirements of specific condition **A.xx**, each SCR system shall be designed and operated for an initial ammonia slip target of less than 10 ppmvd corrected to 15% oxygen when firing natural gas based on the average of three test runs. Compliance with the ammonia slip standard shall be demonstrated by conducting tests in accordance with EPA Method CTM-027 or EPA Method 320.

5. *Section III, Subsection A, Specific Condition A.5.2 – Emission Limitations:* The requested change is to eliminate this obsolete permit condition. Benzene, inorganic arsenic, and beryllium are no longer PSD regulated pollutants. Mercury and lead were below the PSD significant emission rate thresholds. Therefore, the requested changes are as follows:

~~2. The following pollutants were evaluated under preconstruction review for PSD purposes:~~

~~POLLUTANT~~	~~METHOD OF CONTROL~~	~~Basis (b)~~
~~Benzene~~	~~Natural Gas~~	~~BACT~~
~~Inorganic Arsenic~~	~~No.2 Fuel Oil (a)~~	~~BACT~~
~~Beryllium~~	~~No.2 Fuel Oil (a)~~	~~BACT~~
~~Mercury~~	~~No.2 Fuel Oil (a)~~	~~(c)~~

~~Pb~~	~~No.2 Fuel Oil (a)~~	~~(c)~~

~~a. The No.2 fuel oil shall have a maximum sulfur content of0.05 percent, by weight~~
~~b. Since these pollutants are inherent constituents in the fuel, the basis for control will be by specifying that only natural gas and No.2 fuel oil can be fired at the facility.~~
~~c. Below PSD significant emission levels.~~

6. *Section III, Subsection A, Specific Condition A.7 – Excess Emissions:* The requested change is to break this condition into separate parts and insert a summary table in an effort to clarify the content of this condition. Therefore, the requested changes are as follows:

A.7. Excess emissions resulting from startup, shutdown, or malfunction, shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two (2) hours in any 24-hour period except in the event that the steam turbine has been shut down for 8 hours or more.

a. Cold Start-up for Combined Cycle - During a cold start-up to combined cycle operation, up to four (4) hours of excess emissions are allowed in a 24-hour period. Cold start-up is defined as a start-up to combined cycle operation following a steam turbine shutdown lasting at least 48 hours.

b. Warm Start-Up for Combined Cycle - During a warm start up to combined cycle operation up to three (3) hours of excess emissions are allowed in a 24-hour period. Warm start-up is defined as a startup to combined cycle operation following a steam turbine shutdown lasting at least 8 hours.

c. Fuel Switches - During fuel switches (oil-to-gas or gas-to-oil), up to two (2) hours of excess emissions per fuel switch per emissions unit are allowed.

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Method of Operation	Excess Emissions Conditions	Period Authorized for Excess Emissions
Hot Start-up	Complete shutdown of CT-HRSG lasting ≤ 8 hours	≤ 2 hours/start-up/unit
Cold STG Start-up	STG shutdown lasting ≥ 48 hours	≤ 4 hours /start-up/unit
Cold CT-HRSG Start-up	Complete shutdown of CT-HRSG lasting ≥ 8 hours	≤ 3 hours/start-up/unit
Shutdown	Shutdown	≤ 2 hours/shutdown/unit
Fuel Switches	Oil-to-Gas or Gas-to-Oil	≤ 2 hours/fuel-switch/unit
Documented Malfunctions	Malfunctions	≤ 2 hours in any 24-hour block

7. *Section III, Subsection A, Specific Condition A.13 – Particulate Matter:* The requested change is to only require this test if the CT combusts No. 2 distillate oil for more than 400 hours in a year. Therefore, the requested change is as follows:

   A.13. Particulate Matter. The test methods for particulate emissions shall be either EPA Method 5 or Method 17, incorporated by reference in Chapter 62-297, F.A.C. This test is required if the CT operates for more than 400 hours in a year on fuel oil. In addition, this test is not required for natural gas. See Condition A.18.

8. *Section III, Subsection A, Specific Condition A.14 – Visible Emissions:* The requested change to only require this test if the CT combust No. 2 distillate oil for more than 400 hours in a year. Therefore, the requested change is as follows:

   A.14. Visible Emissions. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. This test is required if the CT operates for more than 400 hours in a year on fuel oil. In addition, this test is not required for natural gas.

9. *Section III, Subsection A, Specific Condition A.17 – Frequency of Compliance Tests:* Please use this opportunity to clarify this condition.

   A.17. Frequency of Compliance Tests. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

10. *Section III, Subsection A, CEMS Data Exclusion – DLN Tuning:* The requested change is the addition of a condition for CEMS emissions data exclusion, which was requested during the revision incorporating the specific conditions of Permit No. 1050234-010-AC in the Title V Operation Permit. This requested addition was denied on the basis this action would require an Air Construction Permit - See Page 3 of the Statement of Basis for Permit No. 10500234-016-AV. Therefore, the requested change is as follows:

    A.xx CEMS Data Exclusion - DLN Tuning. CEMS data collected during initial or other major DLN timing sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, periodic tuning to maintain compliance, balance of plant (BOP) issues or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Department's Southwest District Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail.

11. *Section III, Subsection A, Water Injection Monitoring Requirement:* The requested change is the addition of a condition to this subsection to provide a means to continue operating the CT on fuel oil in the event the NO_x CEMS is down or malfunctions and provide assurances the CT is complying with the NO_x emission limit. Therefore, the requested change is as follows:

    A.xx. Water Injection Monitoring Requirements. In accordance with the manufacturer's specifications, the permittee shall install, calibrate, operate and maintain a monitoring system to continuously measure and record the water-to-fuel ratio when firing distillate oil. The permittee shall document the water-to-fuel ratio required to meet permitted emissions levels over the range of load conditions allowed by this permit. The NO_x CEMS is used to demonstrate compliance with the NO_x emissions standards. During NO_x CEMS downtimes or malfunctions, the permittee shall monitor the water-to-fuel ratio and operate at a level that is consistent with the documented flow rate for the gas turbine load condition.

12. *Section III, Subsection A, Ammonia Injection Monitoring Requirement:* The requested change is the addition of a condition to this subsection to provide a means to

continue operating the CT in the event the NO_x CEMS is down or malfunctions and provide assurances the CT is complying with the NO_x emission limit. Therefore, the requested change is as follows:

A.xx. Ammonia Monitoring Requirements. In accordance with the manufacturer's specifications, the permittee shall install, calibrate, operate and maintain an ammonia flow meter to measure and record the ammonia injection rate to the SCR system. The permittee shall document the general range of ammonia flow rates required to meet permitted emissions levels over the range of load conditions allowed by this permit by comparing NO_x emissions recorded by the CEM system with ammonia flow rates recorded using the ammonia flow meter. During NO_x monitor downtimes or malfunctions, the permittee shall operate at the ammonia flow rate that is consistent with the documented flow rate for the combustion turbine load condition.

13. *Section III, Subsection A, Additional Ammonia Slip Testing:* The requested change is allow for the unexpected increase in ammonia slip due to catalyst degradation without incurring an emissions violation but also delineating the corrective action required. This change is similar to conditions addressing ammonia slip contained in the other emission units. Therefore, the requested change is as follows:

A.xx. Additional Ammonia Slip Testing. If the tested ammonia slip rate for a gas turbine exceeds 10 ppmvd corrected to 15% oxygen when firing natural gas during the annual test, the permittee shall

a. Begin testing and reporting the ammonia slip for each subsequent calendar quarter

b. Before the ammonia slip exceeds 15 ppmvd corrected to 15% oxygen, take corrective actions that result in lowering the ammonia slip to less than 5 ppmvd corrected to 15% oxygen; and

c. Test and demonstrate that the ammonia slip is no more than 10 ppmvd corrected to 15% oxygen within 15 days after completing the corrective actions.

Corrective actions may include, but are not limited to, adding catalyst, replacing catalyst, or other SCR system maintenance or repair. After demonstrating that the ammonia slip level is no more than 5 ppmvd corrected to 15% oxygen, testing and reporting shall resume on an annual basis.

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Subsection B:

14. *Section III, Subsection B, Specific Condition B.11 – DEP Method 9:* The requested change is to eliminate a redundant condition and to call attention to the fact that the emission unit is only authorized to combust natural gas – See Specific Conditions B.3 and B.12. Therefore, the requested changes are as follows:

~~**B.11.** DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:~~

~~1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.~~

~~2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple valued opacity (e.g., 20 percent opacity, except that an opacity of40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:~~

~~a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.~~

~~b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken~~

~~In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observa-~~

~~tions in the subset shall be indicated in parenthesis after the subset average value.~~

15. *Section III, Subsection B, Specific Condition B.14 – Test Reports:* The requested change is to eliminate any confusion as to which FDEP office the facility is to submit test reports; i.e., the FDEP's Southwest District Branch Office no longer exists. Therefore, the requested changes are as follows:

    B.14. Test Reports.

    (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's Southwest District office ~~or Southwest District Branch office~~ on the results of each such test.

    (b) The required test report shall be filed with the Department's Southwest District office ~~or Southwest District Branch office~~ as soon as practical but no later than 45 days after the last sampling run of each test is completed.

Subsection E:

16. *Section III, Subsection E, Specific Condition E.1 – Permitted Capacity:* The requested change is to move the content of the permit beyond the initial compliance testing stage and provide for the option of re-establishing a performance curve. The inserted language is identical to language included in Specific Condition B.1 of the P.L. Bartow Power Plant Title V Air Operation Permit (Permit No. 1030011-016-AV). Therefore, the requested change is as follows:

    E.1. Permitted Capacity. The maximum heat input rates, based on the higher heating value of the fuels, and an ambient air temperature of 59 °F, shall not exceed 2,048 MMBtu per hour when firing natural gas and 2,155 MMBtu per hour when firing distillate oil (based on a compressor inlet air temperature of 59 °F, the HHV of each fuel, and 100% load). Heat input rates will vary depending upon gas turbine characteristics, ambient conditions, alternate fuels, and evaporative cooling. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing ~~the initial compliance~~ testing, maintenance or tuning sessions that result in a need to reestablish the curves. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department.

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17. *Section III, Subsection E, Specific Condition E.3.b – Authorized Fuels.* The requested change is to correct the fuel oil heat content basis for determining the annual maximum quantity of No. 2 distillate oil that can be combusted in the CT. Based on a heat input of 2,155 MMBtu/hr, fuel oil heat content of 138,000 Btu/gal, and 720 hours per year operation per turbine, fuel oil consumption for two turbines is (2,155 × 10^6 Btu/hr) × (2 CTs) × (1 gal/138,000 Btu) × (720 hrs/yr) = 22,486,957 gallons per year. Therefore, the requested change is as follows:

    b. *Authorized Fuels.* Each gas turbine shall fire natural gas as the primary fuel, which shall contain no more than 1.0 grains of sulfur per 100 standard cubic feet of natural gas. As a restricted alternate fuel, each gas turbine may fire No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur, by weight. Distillate fuel oil consumption of both emissions units shall not exceed ~~19,703,000~~ 22,486,957 gallons in any consecutive 12-month period.

18. *Section III, Subsection E, Specific Condition E.3.b – Authorized Fuels:* The requested change is to delineate acceptable follow up action in the event the natural gas supplied to the facility exceeds the 1.0 grains S/100 SCF. PEF's contract with Florida Gas Transmission (FGT) only requires less than 20 grains of sulfur. If the gas supplied by the vendor exceeds 1.0 grain, PEF requests that a series of actions be included to ensure the sampling and analysis are not an error or anomaly. Therefore PEF requests language regarding gas testing be included that mirrors that of 40 CFR Part 75 Appendix D 2.3.1.4(b), which states:

    "If the results of the fuel sampling under paragraph (a)(2) or (a)(3) of this section show that the fuel does not meet the definition of pipeline natural gas in §72.2 of this chapter, but those results are believed to be anomalous, the owner or operator may document the reasons for believing this in the monitoring plan for the unit, and may immediately perform additional sampling. In such cases, a minimum of three additional samples must be obtained and analyzed, and the results of each sample analysis must meet the definition of pipeline natural gas."

19. *Section III, Subsection E, Specific Condition E.4 – Emission Standards:* The requested change is to the footnotes of this condition. The changes are requested to add an additional method for the determination of ammonia slip and clarify the compliance period is a 24-hour block; i.e., midnight to midnight. Therefore, the requested changes are as follows:

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a. Compliance with the CO standards shall be demonstrated based on data collected by the required CEMS. Compliance with the 24-hour block CO CEMS standards shall be determined separately based on the hours of operation for each alternative fuel

{Permitting note: A 24-hour block compliance average may be based on as little as 1-hour of CEMS data or as much as 24-hours of CEMS data.}

b. Compliance with the NO_x standards shall be demonstrated based on data collected by the required CEMS. NO_x mass emission rates are defined as oxides of nitrogen expressed as NO_2. Compliance with the 24-hour block NO_x CEMS standards shall be determined separately based on the hours of operation for each alternative fuel

{Permitting note: A 24-hour block compliance average may be based on as little as 1-hour of CEMS data or as much as 24-hours of CEMS data}

d. Subject to the requirements of this permit, each SCR system shall be designed and operated for an initial ammonia slip target of less than 5 ppmvd corrected to 15% oxygen when firing natural gas based on the average of three test runs. Compliance with the ammonia slip standard shall be demonstrated by conducting tests in accordance with EPA Method CTM-027 or EPA Method 320.

20. *Section III, Subsection E, Specific Condition E.8 – CEMS Data Exclusion:* The requested change is to insert a summary table in an effort to clarify the content of this condition. Therefore, the requested changes are as follows:

Method of Operation	**Excess Emissions Conditions**	**Period Authorized for Excess Emissions**
Hot Startup	Complete shutdown of CT-HRSG lasting ≤8 hours	≤ 2 hours/startup/unit
Cold STG Startup	STG shutdown lasting ≥48 hours	≤ 6 hours /startup/unit
Cold CT-HRSG Startup	Complete shutdown of CT-HRSG lasting ≥8 hours	≤ 3 hours/startup/unit
Shutdown	Shutdown	≤ 2 hours/shutdown/unit
Fuel Switches	Oil-to-Gas or Gas-to-Oil	≤ 2 hours/fuel-switch/unit
Documented Malfunctions	Malfunctions	≤ 2 hours in any 24-hour block

21. *Section III, Subsection E, Specific Condition E.9 – CEMS Data Exclusion – DLN Tuning:* The requested change is the addition of another condition for CEMS emissions data exclusion. This addition would include the routine tuning of the CT in an effort to maintain compliance with the unit specific emission standards. Therefore, the requested change is as follows:

E.9 CEMS Data Exclusion - DLN Tuning. CEMS data collected during initial or other major DLN timing sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, periodic tuning to maintain compliance, balance of plant (BOP) issues or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Department's Southwest District Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail.

22. *Section III, Subsection E, Specific Condition E.10 – Tests Required:* The requested change is to clean up this permit condition since the initial compliance tests has been completed are not longer needed. Therefore, the requested change is as follows:

E.10. Tests Required.

a. ~~Initial Compliance Determinations. Each gas turbine shall be stack tested to demonstrate initial compliance with the emission standards for CO, NOx, VOC, visible emissions, and ammonia slip. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup of each unit. Each unit shall be tested when firing natural gas and when firing distillate fuel oil.~~ CEMS data collected during the required Relative Accuracy Test Assessments (RATA) may be used to demonstrate compliance with the initial CO and NO_x standards. CO and NO_x emissions recorded by the CEMS shall also be reported for each run during tests for visible emissions, VOC and ammonia slip. The Department may require the permittee to conduct additional tests after major replacement or major repair of any air pollution control equipment, such as the SCR catalyst, DLN combustors, etc.

23. *Section III, Subsection E, Specific Condition E.10.b.1 – Visible Emissions.* The requested change is correct the gallons of No. 2 distillate fuel oil needed to be fire be-

fore visible emissions testing was required. The basis of this change is the assumed heat content of No. 2 distillate fuel oil; i.e., 138 mmBtu/Kgal. Based on a heat input of 2,155 MMBtu/hr, fuel oil heat content of 138,000 Btu/gal, and 200 hours per year operation per turbine, fuel oil consumption for two turbines is $(2{,}155 \times 10^6 \text{ Btu/hr}) \times (2 \text{ CTs}) \times (1 \text{ gal}/138{,}000 \text{ Btu}) \times (200 \text{ hrs/yr}) = 6{,}246{,}377$ gallons per year. In addition, PEF requests the removal of a permitting note and include it as an enforceable permit condition. Therefore, the requested changes are as follows:

1. *Visible Emissions.* Each unit shall be tested for visible emissions when firing natural gas and when firing distillate fuel oil. Annual emissions testing while firing fuel oil is not required during any federal fiscal year in which less than ~~5,473,000~~ 6,246,377 gallons of distillate fuel oil is fired in both emission units combined. CO emissions recorded by the CEMS shall be reported for the visible emissions observation period.

   {Permitting note: The fuel limitation for waiving testing while firing distillate fuel oil corresponds to the equivalent of approximately 200 hours of operation per year per turbine.}

2. *Ammonia.* Annual testing to determine the ammonia slip shall be conducted while firing natural gas. NO_x emissions recorded by the CEMS shall be reported for each ammonia slip test run.

~~*{Permitting note: After initial compliance with the VOC standards is demonstrated, annual compliance tests for VOC emissions are not required. Compliance with the continuously monitored CO standards shall indicate efficient combustion and low VOC emissions.}*~~

3. *VOC Emissions. After initial compliance with the VOC standards is demonstrated, annual compliance tests for VOC emissions are not required. Compliance with the continuously monitored CO standards shall indicate efficient combustion and low VOC emissions.*

24. *Section III, Subsection E, Specific Condition E.11 – Test Methods:* The requested change is to include EPA Method 320 as an additional option for determination of ammonia slip. Therefore, the requested change is as follows:

E.11 Test Methods. Any required tests shall be performed in accordance with the following reference methods.

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Method	Description of Method and Comments
CTM-027 <u>or Method EPA 320</u>	*Procedure for Collection and Analysis of Ammonia in Stationary Sources* This is an EPA conditional test method. The minimum detection limit shall be 1 ppm.
7E	*Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)*
9	*Visual Determination of the Opacity of Emissions from Stationary Sources* The test shall be conducted for a minimum of 30 minutes.
10	*Determination of Carbon Monoxide Emissions from Stationary Sources* This method shall be based on a continuous sampling train.
18	*Measurement of Gaseous Organic Compound Emissions by Gas Chromatography* (Optional) EPA Method 18 may be used concurrently with EPA Method 25A to deduct emissions of methane and ethane from the measured VOC emissions.
20	*Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines*
25A	*Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer*

25. *Section III, Subsection E, Specific Condition E.18 – Fuel Sulfur Records:* The requested change is to add acceptable methods of analysis for fuel sulfur content and remove language associated with the initial compliance, which was completed a number of years ago. Therefore, the requested changes are as follows:

E.18. <u>Fuel Sulfur Records.</u> The permittee shall demonstrate compliance with the fuel sulfur limits specified in this permit by maintaining the following records of the sulfur contents

a. Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports obtained from the vendor indicating the average sulfur content of the natural gas being supplied from the pipeline for month of operation. Methods for determining the sulfur content of the natural gas shall be methods in 40 CFR 60, Subpart GG, or their latest editions, or other methods approved by the Department.. See Appendix GG -NSPS Subpart GG Requirements for Gas Turbines.

b. ~~Compliance with the distillate oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and reporting the results to each Compliance Authority before initial startup.~~ Sampling and analysis for the fuel oil sulfur content shall be conducted using the ASTM methods in 40 CFR 60, Subpart GG, or their latest editions. More recent editions of these methods may be used. For each subsequent fuel delivery, the permittee shall either (1) maintain a permanent file of the certified fuel sulfur analysis from the fuel vendor, or (2) take and analyze a sample according to the above procedures and maintain a permanent file of the results of the analysis. At the request of a Compliance Authority, the permittee shall perform additional sampling and analysis for the fuel sulfur content. See Appendix GG -NSPS Subpart GG Requirements for Gas Turbines

26. *Section III, Subsection E, Specific Condition E.20 – Semiannual NSPS Excess Emissions Report:* The requested change is to minimize the reporting of possible excess emission on start-up, shutdown, documented malfunctions or fuel switches. Therefore, the requested change is as follows:

E.20. Semiannual NSPS Excess Emissions Report. In accordance with 40 CFR 60.7(c), the permittee shall semiannually submit a report to the Department's Southwest District Compliance Authority summarizing any emissions in excess of the NSPS standards and not excludable under Specific Condition E.8. All reports shall be postmarked by the 30 day following the end of each six-month period. Written reports of excess emissions shall include the information specified in 40 CFR 60.7(c)(1) through (c)(4). For purposes of reporting emissions in excess of 40 CFR 60, Subpart GG, excess emissions from the gas turbine are defined as: any CEMS hourly average value exceeding the NSPS NO_x emission standard identified in Appendix GG -NSPS Subpart GG Requirements for Gas Turbines (i.e., 112.5 ppmvd corrected to 15% oxygen for both natural gas and fuel oil); and any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds the NSPS standard identified in Appendix GG -NSPS Subpart GG Requirements for Gas Turbines (i.e., sulfur in excess of 0.8% by weight). An example of an acceptable report format is provided in Figure I-Summary Report-Gaseous and Opacity Excess Emissions and Monitoring System Performance.

Subsection F:

27. *Section III, Subsection F - Brief Description of Power Block 3:* The heat input rate values in the summary table do not match those that are located in the unit description narrative. Therefore, please change the heat input rate values in the summary table.

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Fuel	Heat Input Rate (HHV)	Compressor Inlet Temp	Exhaust Temperature	Exit Velocity	Flow Rate
Natural Gas	~~1,830~~ 2,048 MMBtu/hour	59 °F	190 °F	59.2 ft/sec	1,009,487 acfm
Oil	~~1,932~~ 2,155 MMBtu/hour	59 °F	270 °F	67.0 ft/sec	1,139,394 acfm

28. *Section III, Subsection F, Specific Condition F.7.b – Authorized Fuels.* The requested change is to correct the fuel oil heat content basis for determining the annual maximum quantity of No. 2 distillate oil that can be combusted in the CT. Based on a heat input of 2,155 MMBtu/hr, fuel oil heat content of 138,000 Btu/gal, and 720 hours per year operation per turbine, fuel oil consumption for two turbines is (2,155 $\times$ 10^6 Btu/hr) $\times$ (2 CTs) $\times$ (1 gal/138,000 Btu) $\times$ (720 hrs/yr) = 22,486,957 gallons per year. Therefore, the requested change is as follows:

    b. *Authorized Fuels.* Each gas turbine shall fire natural gas as the primary fuel, which shall contain no more than 1.0 grains of sulfur per 100 standard cubic feet of natural gas. As a restricted alternate fuel, each gas turbine may fire No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur, by weight. Distillate fuel oil consumption of both emissions units shall not exceed ~~19,703,000~~ 22,486,957 gallons in any consecutive 12-month period.

29. *Section III, Subsection F, Specific Condition F.7.b – Authorized Fuels:* The requested change is to delineate acceptable follow up action in the event the natural gas supplied to the facility exceeds the 1.0 grains S/100 scf. PEF's contract with Florida Gas Transmission (FGT) only requires less than 20 grains of sulfur. If the gas supplied by the vendor exceeds 1.0 grain S/100 scf, PEF requests that a series of actions be included to ensure the sampling and analysis are not an error or anomaly. Therefore PEF requests language regarding gas testing be included that mirrors that of 40 CFR Part 75 Appendix D 2.3.1.4(b), which states:

    "If the results of the fuel sampling under paragraph (a)(2) or (a)(3) of this section show that the fuel does not meet the definition of pipeline natural gas in §72.2 of this chapter, but those results are believed to be anomalous, the owner or operator may document the reasons for believing this in the monitoring plan for the unit, and may immediately perform additional sampling. In such cases, a minimum of three additional samples must be obtained and analyzed, and the results of each sample analysis must meet the definition of pipeline natural gas."

30. *Section III, Subsection F, Specific Condition F.8 – Emission Standards:* The requested change is to the footnotes of this condition. The changes are requested to clarify the compliance period is a 24-hour block; i.e., midnight to midnight. Therefore, the requested changes are as follows:

    a. Compliance with the CO standards shall be demonstrated based on data collected by the required CEMS. Compliance with the 24-hour block CO CEMS standards shall be determined separately based on the hours of operation for each alternative fuel.

    {Permitting note: A 24-hour block compliance average may be based on as little as 1-hour of CEMS data or as much as 24-hours of CEMS data. The Department shall revise the CO emissions standards following any future installation of an oxidation catalyst pursuant to specific condition F.6.c.}

    b. Compliance with the NO_x standards shall be demonstrated based on data collected by the required CEMS. NO_x mass emission rates are defined as oxides of nitrogen expressed as NO_2. Compliance with the 24-hour block NO_x CEMS standards shall be determined separately based on the hours of operation for each alternative fuel

    {Permitting note: A 24-hour block compliance average maybe based on as little as1-hour of CEMS data or as much as 24-hours of CEMS data.}

31. *Section III, Subsection F, Specific Condition F.11 – CEMS Data Exclusion:* The requested change is to insert a summary table in an effort to clarify the content of this condition. Therefore, the requested changes are as follows:

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Method of Operation	Excess Emissions Conditions	Period Authorized for Excess Emissions
Hot Startup	Complete shutdown of CT-HRSG lasting ≤ 8 hours	≤ 2 hours/startup/unit
Cold STG Startup	STG shutdown lasting ≥ 48 hours	≤ 6 hours /startup/unit
Cold CT-HRSG Startup	Complete shutdown of CT-HRSG lasting ≥ 8 hours	≤ 3 hours/startup/unit
Shutdown	Shutdown	≤ 2 hours/shutdown/unit
Fuel Switches	Oil-to-Gas or Gas-to-Oil	≤ 2 hours/fuel-switch/unit
Documented Malfunctions	Malfunctions	≤ 2 hours in any 24-hour block

32. *Section III, Subsection F, Specific Condition F.12 – DLN Tuning:* The requested change is the addition of another condition for CEMS emissions data exclusion. This addition would include the routine tuning of the CT in an effort to maintain compliance with the unit specific emission standards. Therefore, the requested change is as follows:

    F.12 CEMS Data Exclusion - DLN Tuning. CEMS data collected during initial or other major DLN timing sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, periodic tuning to maintain compliance status, balance of plant (BOP) issues or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Department's Southwest District Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail.

33. *Section III, Subsection F, Specific Condition F.13 – Test Methods:* The requested change is to include EPA Method 320 as an additional option for determination of ammonia slip. Therefore, the requested change is as follows:

    F.13 Test Methods. Any required tests shall be performed in accordance with the following reference methods.

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HINES ENERGY COMPLEX
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Method	Description of Method and Comments
CTM-027 or Method EPA 320	*Procedure for Collection and Analysis of Ammonia in Stationary Sources* This is an EPA conditional test method. The minimum detection limit shall be 1 ppm.
7E	*Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)*
9	*Visual Determination of the Opacity of Emissions from Stationary Sources* The test shall be conducted for a minimum of 30 minutes.
10	*Determination of Carbon Monoxide Emissions from Stationary Sources* This method shall be based on a continuous sampling train.
18	*Measurement of Gaseous Organic Compound Emissions by Gas Chromatography* (Optional) EPA Method 18 may be used concurrently with EPA Method 25A to deduct emissions of methane and ethane from the measured VOC emissions.
20	*Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines*
25A	*Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer*

34. *Section III, Subsection F, Specific Condition F.14 – Initial and Subsequent Compliance Determinations:* The requested change is to clean up this permit condition since the initial compliance tests has been completed and are not longer required. Therefore, the requested change is as follows:

> **F.14.** ~~Initial and Subsequent~~ Compliance Determinations. ~~Each gas turbine shall be stack tested to demonstrate initial compliance with the emission standards for CO, NOx, VOC, visible emissions, and ammonia slip. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup of each unit. Each unit shall be tested when firing natural gas and when firing distillate fuel oil.~~ CEMS data collected during the required Relative Accuracy Test Assessments (RATA) may be used to demonstrate compliance with the initial CO and NO_x standards. CO and NO_x emissions recorded by the CEMS shall also be reported for each run during tests for visible emissions, VOC and ammonia slip. The Department may require the permittee to conduct additional tests after major replacement or major repair of any air pollution control equipment, such as the SCR catalyst, DLN combustors, etc.

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35. *Section III, Subsection F, Specific Condition F.16 – Annual Compliance Tests:* The requested change is correct the gallons of No. 2 distillate fuel oil needed to be fire before visible emissions testing was required. The basis of this change is the assumed heat content of No. 2 distillate fuel oil; i.e., 138 mmBtu/Kgal. Based on a heat input of 2,155 MMBtu/hr, fuel oil heat content of 138,000 Btu/gal, and 200 hours per year operation per turbine, fuel oil consumption for two turbines is $(2{,}155 \times 10^6$ Btu/hr$) \times (2$ CTs$) \times (1$ gal/138,000 Btu$) \times (200$ hrs/yr$) = 6{,}246{,}377$ gallons per year. In addition, PEF requests the removal of a permitting note and include it as an enforceable permit condition. Therefore, the requested changes are as follows:

F.16. Annual Compliance Tests. During each federal fiscal year (October 1st to September 30th), each gas turbine shall be tested to demonstrate compliance with the emission standards for visible emissions and ammonia

1. Visible Emissions. Each unit shall be tested for visible emissions when firing natural gas and when firing distillate fuel oil. Annual emissions testing while firing fuel oil is not required during any federal fiscal year in which less than ~~5,473,000~~ 6,246,377 gallons of distillate fuel oil is fired in both emission units combined. CO emissions recorded by the CEMS shall be reported for the visible emissions observation period

{Permitting note: The fuel limitation for waiving testing while firing distillate fuel oil corresponds to the equivalent of approximately 200 hours of operation per year per turbine.}

2. Ammonia. Annual testing to determine the ammonia slip shall be conducted while firing natural gas. NO_x emissions recorded by the CEMS shall be reported for each ammonia slip test run.

~~*{Permitting note: After initial compliance with the VOC standards is demonstrated, annual compliance tests for VOC emissions are not required. Compliance with the continuously monitored CO standards shall indicate efficient combustion and low VOC emissions.}*~~

3. VOC Emissions. *After initial compliance with the VOC standards is demonstrated, annual compliance tests for VOC emissions are not required. Compliance with the continuously monitored CO standards shall indicate efficient combustion and low VOC emissions.*

36. *Section III, Subsection F, Specific Condition F.18.f – 24-Hour Block Averages:* The requested change is to clarify that the compliance standards are 24-hour block averages. Therefore, the requested changes are as follows:

    f. 24-hour Block Averages. A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of available valid hourly average emission rate values for the 24-hour block. For purposes of determining compliance with the 24-hour block CEMS emissions standards of this permit, missing (or excluded) data shall not be substituted. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block.

    {Permitting note: There may be more than one 24-hour block compliance demonstration required for CO *and* NO_x *emissions depending on the use of alternate fuels.}*

37. *Section III, Subsection F, Specific Condition F.25 – Semiannual NSPS Excess Emissions Report:* The requested change is to minimize the reporting of possible excess emission on start-up, shutdown, documented malfunctions or fuel switches. Therefore, the requested change is as follows

    F.25. Semiannual NSPS Excess Emissions Report. In accordance with 40 CFR 60.7(c), the pefllittee shall semiannually submit a report to the Department's Southwest District Compliance Authority summarizing any emissions in excess of the NSPS standards and not excludable under Specific Condition F.8. All reports shall be postmarked by the 30 day following the end of each six-month period. Written reports of excess emissions shall include the information specified in 40 CFR 60.7(c)(1) through (c)(4). For purposes of reporting emissions in excess of 40 CFR 60, Subpart GG, excess emissions from the gas turbine are defined as: any CEMS hourly average value exceeding the NSPS NO_x emission standard identified in Appendix GG -NSPS Subpart GG Requirements for Gas Turbines (i.e., 112.5 ppmvd corrected to 15% oxygen for both natural gas and fuel oil); and any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds the NSPS standard identified in Appendix GG -NSPS Subpart GG Requirements for Gas Turbines (i.e., sulfur in excess of 0.8% by weight). An example of an acceptable report format is provided in Figure I-Summary Report-Gaseous And Opacity Excess Emissions and Monitoring System Performance.

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REQUESTED CHANGES TO CURRENT TITLE V PERMIT

Subsection G:

38. *Section III, Subsection G, Specific Condition G.9.b – Authorized Fuels.* The requested change is to correct the fuel oil heat content basis for determining the annual maximum quantity of No. 2 distillate oil that is authorized to be combusted in the CT. Based on a heat input of 2,122 MMBtu/hr, fuel oil heat content of 138,000 Btu/gal, and 1,000 hours per year operation per turbine, fuel oil consumption for two turbines is (2,122 × 10^6 Btu/hr) × (2 CTs) × (1 gal/138,000 Btu) × (1,000 hrs/yr) = 30,753,623 gallons per year. Therefore, the requested change is as follows:

b. *Authorized Fuels*: Each gas turbine shall fire natural gas as the primary fuel, which shall contain no more than 1.0 grains of sulfur per 100 standard cubic feet of natural gas. As a restricted alternate fuel, each gas turbine may fire No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. Distillate fuel oil consumption of both emissions units shall not exceed ~~30,700,000~~ 30,753,623 gallons in any consecutive 12 month period.

39. *Section III, Subsection G, Specific Condition G.14 – Alternate CO and NO_x Emissions Standard:* The requested change is to replace this condition with a start-up condition similar to the other three Power Blocks. Therefore, the requested changes are as follows:

G.14. ~~Alternate~~ CO and NO_x Emissions Standard. ~~During any 24 hour period, in which at least one hour of startup or shutdown operation has occurred, the following alternative emission limits shall apply:~~ Periods of excess emissions excluded due to startup shall not exceed two (2) hours per startup per unit except for the following:

~~a) An alternative NOx limit 3000 lb shall apply if natural gas is the exclusively fired fuel;~~
~~b) An alternative NOx limit of 8880 lb shall apply if any fuel oil is fired; and~~
~~c) An alternative CO limit of 4200 lb shall apply when firing either natural gas or fuel oil.~~

a. Periods of excess emissions excluded due to cold CT-HRSG startup shall not exceed three (3) hours per startup per unit. A "cold CT-HRSG startup" is defined as startup following a complete shutdown of the combustion turbine-heat recovery steam generator (CT-HRSG) lasting a minimum of 8 hours.
b. Periods of excess emissions excluded due to cold STG startup shall not exceed seven (7) hours per startup per unit. A "cold STG startup" is defined as

a startup following a complete steam turbine generator (STG) shutdown lasting a minimum of 48 hours.

c. Periods of data excluded for shutdown shall not exceed two (2) hours per shutdown per unit.
d. Periods of data excluded for fuel switches shall not exceed two (2) hours per fuel switch per unit.
e. Periods of data excluded for documented malfunctions shall not exceed two (2) hours per unit in any 24-hour block. A "documented malfunction" means a malfunction that meets the notification requirements specified in specific condition F.24.
f. All periods of data excluded for any startup, shutdown, fuel switches, or documented malfunction shall be consecutive for each episode.

The permittee shall minimize the duration of data excluded to the extent practicable. Data shall not be excluded if the startup, shutdown, or documented malfunction was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably have been prevented. Best operating practices shall be used to minimize hourly emissions that occur during episodes of startup, shutdown, fuel switching, or documented malfunction.

Method of Operation	**Excess Emissions Conditions**	**Period Authorized for Excess Emissions**
Hot Start-up	Complete shutdown of CT-HRSG lasting ≤ 8 hours	≤ 2 hours/start-up/unit
Cold STG Start-up	STG shutdown lasting ≥ 48 hours	≤ 7 hours /start-up/unit
Cold CT-HRSG Start-up	Complete shutdown of CT-HRSG lasting ≥ 8 hours	≤ 3 hours/start-up/unit
Shutdown	Shutdown	≤ 2 hours/shutdown/unit
Fuel Switches	Oil-to-Gas or Gas-to-Oil	≤ 2 hours/fuel-switch/unit
Documented Malfunctions	Malfunctions	≤ 2 hours in any 24-hour block

40. *Section III, Subsection G, Specific Condition G.15 – Allowed Excess Emissions:* The requested change is to clarify there are two possible fuel switches – oil-to-gas and gas-to-oil – and to eliminate the sentence that excess emissions shall in no case exceed two hours in any 24-hour period. This sentence appears to directly conflict with

Specific Condition G.13 and any changes to G.14. Therefore, the requested changes are as follows:

G.15. Allowed Excess Emissions. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Best operating practices shall be used to minimize hourly emissions that occur during episodes of startup, shutdown, oil-to-gas and gas-to-oil fuel switching, or documented malfunction. ~~Excess emissions shall in no case exceed two hours in any 24 hour period.~~

41. *Section III, Subsection G, Specific Condition G.16 – CEMS Data Exclusion:* The requested change is to clarify there are two possible fuel switches – oil-to-gas and gas-to-oil – and add the missing fuel switch to the periods of excludable CEMS data. Therefore, the requested changes are as follows:

G.16. CEMS Data Exclusion. As provided in this paragraph, NO_x and CO emissions data recorded during certain periods may be excluded from the compliance determination calculation requirements of this section.

a. Periods of data excluded for oil-to-gas and gas-to-oil fuel switches shall not exceed two hours in any 24-hour block.

b. Periods of data excluded for documented malfunctions shall not exceed two hours in any 24-hour block. A "documented malfunction" means a malfunction that meets the notification requirements specified in Condition No. G.27 of this section. The permittee shall minimize the duration of data excluded to the extent practicable. Data shall not be excluded if the documented malfunction was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably have been prevented.

c. Data collected during periods covered by ~~the alternate emissions standard~~ provisions of Condition No. G.14 may be excluded from the compliance determination calculation requirements of Condition No. G.10.

42. *Section III, Subsection G, Specific Condition G.17 – CEMS Data Exclusion - DLN Tuning:* The requested change is the addition of another condition for CEMS emissions data exclusion. This addition would include the routine tuning of the CT in an effort to maintain compliance with the unit specific emission standards. Therefore, the requested change is as follows:

G.17. CEMS Data Exclusion – DLN Tuning. CEMS data collected during initial or other major DLN tuning sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, periodic tuning to maintain compliance, balance of plant (BOP) issues or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail.

43. *Section III, Subsection G, Specific Condition G.21.a – Visible Emissions*. The requested change is correct the gallons of No. 2 distillate fuel oil needed to be fire before visible emissions testing was required. The basis of this change is the assumed heat content of No. 2 distillate fuel oil; i.e., 138 mmBtu/Kgal. Based on a heat input of 2,122 MMBtu/hr, fuel oil heat content of 138,000 Btu/gal, and 200 hours per year operation per turbine, fuel oil consumption for two turbines is (2,122 × 10^6 Btu/hr) × (2 CTs) × (1 gal/138,000 Btu) × (200 hrs/yr) = 6,150,724 gallons per year. In addition, PEF requests the removal of a permitting note and include it as an enforceable permit condition. Therefore, the requested changes are as follows:

a. Visible Emissions. Each unit shall be tested for visible emissions when firing natural gas and when firing distillate fuel oil. Annual emissions testing while firing fuel oil is not required during any federal fiscal year in which less than ~~6,140,000~~ 6,150,724 gallons of distillate fuel oil is fired in both emission units combined. CO emissions recorded by the CEMS shall be reported for the visible emissions observation period.

{Permitting note: The fuel limitation for waiving testing while firing distillate fuel oil corresponds to the equivalent of approximately 200 hours of operation per year per turbine.}

b. Ammonia. Annual testing to determine the ammonia slip shall be conducted while firing natural gas. NO_x emissions recorded by the CEMS shall be reported for each ammonia slip test run.

~~*{Permitting note: After initial compliance with the VOC standards is demonstrated, annual compliance tests for VOC emissions are not required. Compliance with the continuously monitored CO standards shall indicate efficient combustion and low VOC emissions.}*~~

c. *VOC Emissions. After initial compliance with the VOC standards is demonstrated, annual compliance tests for VOC emissions are not required. Compliance with the continuously monitored CO standards shall indicate efficient combustion and low VOC emissions.*

44. *Section III, Subsection G, Specific Condition G.26 – Fuel Sulfur Records:* The requested change is to include additional methods for determining fuel sulfur content. Therefore, the requested change is as follows:

a. Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports obtained from the vendor indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D3246-81 or more recent versions, or DEP-approved method.

b. Compliance with the distillate oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and reporting the results to each Compliance Authority before initial startup. Sampling the fuel oil sulfur content shall be conducted in accordance with ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, and one of the following test methods for sulfur in petroleum products: ASTM D129-91, ASTM D1552-90, ASTM D2622-94, or ASTM D4294-90, or DEP-approved method. More recent versions of these methods may be used. For each subsequent fuel delivery, the permittee shall either (1) maintain a permanent file of the certified fuel sulfur analysis from the fuel vendor, or (2) take and analyze a sample according to the above procedures and maintain a permanent file of the results of the analysis. At the request of a Compliance Authority, the permittee shall perform additional sampling and analysis for the fuel sulfur content.

Subsection H:

For all units

This subsection is excellent depository for permit conditions that are common to all of the Power Block emission units. Although not intended to be an all-inclusive list of common condition, several examples are included below.

H.xx. CEMS Data Exclusion. As provided in this paragraph, NO_x and CO emissions data recorded during periods of startup, shutdown, fuel switches (oil-to-gas or gas-to-oil), and documented malfunctions may be excluded from the block average calculated to demonstrate compliance with the emission limits of this permit.

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H.xx. CEMS. The permittee shall install, calibrate, maintain, and operate CEMS to measure and record the emissions of CO and NO_x from the combined cycle gas turbine. The CEMS shall be used to demonstrate continuous compliance with the CEMS emission standards specified in this permit. Upon request by the Department's Southwest District Compliance Authority, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332. Each monitoring system shall be installed, calibrated, and properly functioning prior to the initial performance tests. Within one working day of discovering emissions in excess of a CO or NO_x standard (and subject to the specified averaging period), the permittee shall notify the Department's Southwest District Compliance Authority.

a. CO *Monitors.* Except as otherwise specified by this condition, the CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. Quality assurance procedures shall conform to the requirements of40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Department's Southwest District Compliance Authority. The RATA tests required for the CO monitor shall be performed using EPA Method 10 in Appendix A, 40 CFR 60. The Method 10 analysis shall be based on a continuous sampling train, and the ascarite trap may be omitted or the interference trap of Section 10.1 may be used in lieu of the silica gel and ascarite traps. The CO monitor shall be a dual range monitor. The span for the lower range shall not be greater than 50 ppm. The span for the upper range shall be set at a level that provides for accurate measurement during startups and shutdowns.

b. *Monitors.* Except as otherwise specified by this condition, the NO_x monitor shall be certified pursuant to 40 CFR 75, and shall be operated and maintained in accordance with the applicable requirements of40 CFR 75, Subparts Band C. Record keeping and reporting shall be conducted pursuant to 40 CFR 75, Subparts F and G. The RATA tests required for the NO_x monitor shall be performed using EPA Method 20 or 7E in Appendix A, 40 CFR 60. The NO_x monitor shall be a dual range monitor. The span for the lower range shall not be greater than 10 ppm. The span for the upper range shall be set at a level that provides for accurate measurement during startups and shutdowns.

c. *Diluent Monitors.* The oxygen or carbon dioxide (CO_2) content of the flue gas shall be monitored at the location where CO and NO_x are monitored to correct the measured emissions rates to 15% oxygen. If a CO_2 monitor is installed, the oxygen content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75.

d. <u>*Moisture Correction.*</u> Final results of the CEMS shall be expressed as ppmvd corrected to 15% oxygen. If the CEMS measures concentration on a wet basis, the CEMS shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the permittee may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). If the CEMS measures concentration on a wet basis and the diluent monitor measures CO_2 on a wet basis, then the permittee may develop an algorithm to enable correction of the CEMS results to a dry basis (0% moisture) without determining the corresponding moisture content.

e. <u>*1-Hour Block Averages.*</u> Hourly average values shall begin at the top of each hour. Each hourly average value shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, an hourly value shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). If less than two such data points are available, the hourly average value is not valid. An hour in which any oil is fired is attributed towards compliance with the permit standards for oil firing. The permittee shall use all valid measurements or data points collected during an hour to calculate the hourly average values. The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over an hour.

f. <u>*24-hour Block Average.*</u> A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of available valid hourly average emission rate values for the 24-hour block. For purposes of determining

H.xx. <u>Additional Ammonia Slip Testing.</u> If the tested ammonia slip rate for a gas turbine exceeds 5 ppmvd corrected to 15% oxygen when firing natural gas during the annual test, the permittee shall

a. Begin testing and reporting the ammonia slip for each subsequent calendar quarter

b. Before the ammonia slip exceeds 7 ppmvd corrected to 15% oxygen, take corrective actions that result in lowering the ammonia slip to less than 5 ppmvd corrected to 15% oxygen; and

c. Test and demonstrate that the ammonia slip is no more than 5 ppmvd corrected to 15% oxygen within 15 days after completing the corrective actions.

Corrective actions may include, but are not limited to, adding catalyst, replacing catalyst, or other SCR system maintenance or repair. After demonstrating that the ammonia slip level is no more than 5 ppmvd corrected to 15% oxygen, testing and reporting shall resume on an annual basis.

ATTACHMENT I

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: ☐ New ☐ Revised ■ Renewal

STEP 1

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

Plant name	State	ORIS/Plant Code
Hines Energy Complex	**Florida**	**7302**

STEP 2
Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO_2 Opt-in unit, enter "yes" in column "b".

For new units or SO_2 Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO_2 Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO_2 Opt-in Units Commence Operation Date	New or SO_2 Opt-in Units Monitor Certification Deadline
1A	**No**	**Yes**	**N/A**	**N/A**
1B	**No**	**Yes**	**N/A**	**N/A**
2A	**No**	**Yes**	**N/A**	**N/A**
2B	**No**	**Yes**	**N/A**	**N/A**
3A	**No**	**Yes**	**N/A**	**N/A**
3B	**No**	**Yes**	**N/A**	**N/A**
4A	**No**	**Yes**	**N/A**	**N/A**
4B	**No**	**Yes**	**N/A**	**N/A**

Hines Energy Complex

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 SO_2 Opt-in unit, a monitoring plan for each SO_2 Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO_2 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,

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STEP 3, Continued.

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 representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR Parts 72, 73, 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 SO_2 Opt-in units only.

In column "f" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

Hines Energy Complex

STEP 5

For SO_2 Opt-in units only.
(Not required for SO_2 Opt-in renewal applications.)

In column "i" enter the unit ID# for 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 supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO_2 Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO_2 Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO_2 Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO_2 Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

STEP 6

For SO_2 Opt-in units only.

Attach additional requirements, certify and sign.

A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
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 SO_2 under 40 CFR 72.40.
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

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 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.

Patricia Q. West Name	**Manager, Environmental Services, Energy Supply Florida** Title
Progress Energy Florida Owner Company Name	
(727) 820-5739 Phone	**Patricia.West@pgnmail.com** E-mail address
Signature *Patricia Q. West*	Date *May 13, 2011*

ATTACHMENT J

CLEAN AIR INTERSTATE RULE 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: **Hines Energy Complex**	State: **Florida**	ORIS or EIA Plant Code: **7302**

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.

a	b	c	d	e	f
Unit ID#	Unit will hold nitrogen oxides (NO_X) allowances in accordance with 40 CFR 96.106(c)(1)	Unit will hold sulfur dioxide (SO_2) allowances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO_X Ozone Season allowances in accordance with 40 CFR 96.306(c)(1)	New Units Expected Commence Commercial Operation Date	New Units Expected Monitor Certification Deadline
1A	X	X	X	N/A	N/A
1B	X	X	X	N/A	N/A
2A	X	X	X	N/A	N/A
2B	X	X	X	N/A	N/A
3A	X	X	X	N/A	N/A
3B	X	X	X	N/A	N/A
4A	X	X	X	N/A	N/A
4B	X	X	X	N/A	N/A

Hines Energy Complex

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.

(1) 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.
(2) 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 CFR 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.

Hines Energy Complex

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 SO_2 TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR SO_2 source and each CAIR SO_2 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 SO_2 source and each CAIR SO_2 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 SO_2 source and each SO_2 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 SO_2 source with the following CAIR SO_2 Emission Requirements.

SO_2 Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO_2 source and each CAIR SO_2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO_2 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 SO_2 units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
(2) A CAIR SO_2 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 SO_2 allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO_2 Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO_2 allowance was allocated.
(4) CAIR SO_2 allowances shall be held in, deducted from, or transferred into or among CAIR SO_2 Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
(5) A CAIR SO_2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO_2 Trading Program. No provision of the CAIR SO_2 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 SO_2 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 SO_2 allowance to or from a CAIR SO_2 unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO_2 unit.

Excess Emissions Requirements.

If a CAIR SO_2 source emits SO_2 during any control period in excess of the CAIR SO_2 emissions limitation, then:
(1) The owners and operators of the source and each CAIR SO_2 unit at the source shall surrender the CAIR SO_2 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.

Hines Energy Complex

Plant Name (from STEP 1)

STEP 3, Continued

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR SO_2 source and each CAIR SO_2 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 SO_2 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 SO_2 Trading Program or to demonstrate compliance with the requirements of the CAIR SO_2 Trading Program.

(2) The CAIR designated representative of a CAIR SO_2 source and each CAIR SO_2 unit at the source shall submit the reports required under the CAIR SO_2 Trading Program, including those under 40 CFR Part 96, Subpart HHH.

Liability.

(1) Each CAIR SO_2 source and each CAIR SO_2 unit shall meet the requirements of the CAIR SO_2 Trading Program.
(2) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 source or the CAIR designated representative of a CAIR SO_2 source shall also apply to the owners and operators of such source and of the CAIR SO_2 units at the source.
(3) Any provision of the CAIR SO_2 Trading Program that applies to a CAIR SO_2 unit or the CAIR designated representative of a CAIR SO_2 unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO_2 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 SO_2 source or CAIR SO_2 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.

(1) 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.

Hines Energy Complex

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 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, 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 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.

Patricia Q. West Name	**Manager, Environmental Services, Energy Supply Florida** Title
Progress Energy Florida Owner Company Name	
(727) 820-5739 Phone	**Patricia.West@pgnmail.com** E-mail address
Signature Patricia Q. West	Date May 13, 2011

ATTACHMENT K

FUEL SPECIFICATIONS

ATTACHMENT K

HINES ENERGY COMPLEX
FUEL ANALYSES OR SPECIFICATIONS

A. No. 2 Fuel Oil

Specification	Units	No. 2 Distillate Fuel Oil
Heat content (nominal)	BTU/gal (HHV)	138,000
Sulfur content	weight %	0.5
Ash content	weight %	0.1

B. Natural Gas (Typical Composition)

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

Note: Btu/ft^3 = British thermal unit per cubic foot.
psia = pound per square inch absolute.
gr/100 scf = grain per 100 standard cubic foot.

ATTACHMENT L

PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT L

HINES ENERGY COMPLEX
POWER BLOCKS 1 THROUGH 4
PROCEDURES FOR STARTUP AND SHUTDOWN

PEF maintains detailed procedures for startup, shutdown, and maintenance for the power blocks at the Hines Energy Complex. These procedures are available upon request. The following is a general description of these activities.

STARTUP/SHUTDOWN

In general for startup, the control logic for the single steam turbine-electrical generators has a set startup ramp rate and hold points. The ramp rate and hold points are in place to control the thermal stress of the turbine casting. In addition, the steam turbine must be warmed up at a slow rate so the rotating turbine does not expand faster than the shell – keeping the rotating rotor from hitting the stationary shell. The ramp rate and hold points are fixed in the CTG software and cannot be changed by the operators.

The startup ramp rate and hold points on the single steam turbine-electrical generators require that the combustion turbines limit the heat to the HRSGs during startup.

OPERATION

In the natural gas-fired mode, the DLN control system regulates the distribution of fuel delivered to a multinozzle, total premix combustor arrangement. The fuel flow distribution to each combustion chamber fuel nozzle assembly is calculated to maintain unit load and fuel split for optimal turbine emissions.

During distillate fuel oil combustion, the liquid fuel (distillate oil) system filters, pressurizes, controls, and equally distributes fuel flow to the turbine combustion chambers.

This general description of the power block startup, shutdown, and operation procedures is presented as an example of the procedures performed and maintained at the Hines Energy Complex. The actual procedures followed may vary from the description indicated herein.

ATTACHMENT M

ALTERNATE METHODS OF OPERATION

ATTACHMENT M

HINES ENERGY COMPLEX
ALTERNATIVE METHODS OF OPERATION

A. Power Block 1 (EU ID Nos. 001 and 002)

Method Number	Fuel Type	Fuel Sulfur Content (gr S/100 scf)	Fuel Sulfur Content (wt %)	Heat Input Range, HHV* (MMBtu/hr)	Maximum Operating Hours		
					hr/day	day/week	hr/yr
1	Natural gas	1.0	N/A	0 to 1,915	24	7	8,760
2	No. 2 fuel oil	N/A	0.05	0 to 2,020	24	7	†

B. Power Block 2 (EU ID Nos. 014 and 015)

Method Number	Fuel Type	Fuel Sulfur Content (gr S/100 scf)	Fuel Sulfur Content (wt %)	Heat Input Range, HHV* (MMBtu/hr)	Maximum Operating Hours		
					hr/day	day/week	hr/yr
1	Natural gas	1.0	N/A	0 to 2,048	24	7	8,760
2	No. 2 fuel oil	N/A	0.05	0 to 2,155	24	7	‡

ATTACHMENT M

HINES ENERGY COMPLEX
ALTERNATIVE METHODS OF OPERATION

C. Power Block 3 (EU ID Nos. 016 and 017)

Method Number	Fuel Type	Fuel Sulfur Content (gr S/100 scf)	Fuel Sulfur Content (wt %)	Heat Input Range, HHV* (MMBtu/hr)	Maximum Operating Hours		
					hr/day	day/week	hr/yr
1	Natural gas	1.0	N/A	0 to 2,048	24	7	8,760
2	No. 2 fuel oil	N/A	0.05	0 to 2,155	24	7	‡

D. Power Block 4 (EU ID Nos. 018 and 019)

Method Number	Fuel Type	Fuel Sulfur Content (gr S/100 scf)	Fuel Sulfur Content (wt %)	Heat Input Range, HHV* (MMBtu/hr)	Maximum Operating Hours		
					hr/day	day/week	hr/yr
1	Natural gas	1.0	N/A	0 to 1,915	24	7	8,760
2	No. 2 fuel oil	N/A	0.05	0 to 2,122	24	7	§

*Heat input rates are at combustion turbine base load and 59°F ambient temperature operating conditions.
†No. 2 fuel oil use is limited to no more than 14,637,681 gallons per year for both CTGs combined.
‡No. 2 fuel oil use is limited to no more than 22,486,957 gallons in any consecutive 12-month period for both CTGs combined.
§No. 2 fuel oil use is limited to no more than 30,753,623 gallons in any consecutive 12-month period for both CTGs combined.