

TITLE V PERMIT APPLICATION FLORIDA POWER & LIGHT COMPANY MARTIN PLANT INDIANTOWN, FLORIDA

> Prepared For: Florida Power & Light Company 700 Universe Boulevard Juno Beach, Florida 33408

Prepared By: Golder Associates Inc. 6241 NW 23rd Street, Suite 500 Gainesville, Florida 32653-1500

> July 2003 0237560

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1 Copy - Florida Power & Light Martin Plant

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Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE I. APPLICATION INFORMATION

Identification of Facility

1.	Facility Owner/Company Name:	Florida F	Power & Light Company
2.	Site Name:	Martin P	lant
3.	Facility Identification Number:	085001	[] Unknown
4.	Facility Location: 21900 SW Warf Street Address or Other Locator:	ield Blvd.	
	City:Indiantown Co	unty:Martin	Zip Code: 34956-0176
5.	Relocatable Facility?	6. Ez	kisting Permitted Facility?
	[] Yes [X] No	[]	X]Yes [] No
<u>Ap</u>	oplication Contact	-	
1.	Name and Title of Application Conta		łampp onmental Specialist
2.	Application Contact Mailing Address Organization/Firm: Florida Power of		Environmental Services Dept.
	Street Address: 700 Universe Blvd.		
	City: Juno Beach	State: FL	Zip Code: 33408
3.	Application Contact Telephone Num	bers:	
	Telephone: (561)- 691-2894	Fa	x: (561)- 691-7049
Ap	pplication Processing Information (D	EP Use)	
1.	Date of Receipt of Application:		
2.	Permit Number:		
3.	PSD Number (if applicable):		
4.	Siting Number (if applicable):		

Purpose of Application

Air Operation Permit Application

II	HS	Application for Air Permit is submitted to obtain: (Check one)
[]	Initial Title V air operation permit for an existing facility which is classified as a Title V source.
[]	Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.
		Current construction permit number:
[]	Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.
		Current construction permit number:
		Operation permit number to be revised:
[]	Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)
		Operation permit number to be revised/corrected:
[}	(]	Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.
		Operation permit number to be revised: 0850001-008-AV
		Reason for revision: TITLE V PERMIT RENEWAL
Ai	r (Construction Permit Application
Th	is	Application for Air Permit is submitted to obtain: (Check one)
[]	Air construction permit to construct or modify one or more emissions units.
[]	Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
ſ	1	Air construction permit for one or more existing but unpermitted emissions units

Owner/Authorized Representative or Responsible Official

witer/radiotized representative of resp			
Name and Title of Owner/Authorized Repre	esentat	ive or Res	ponsible Official:
Keith Hardy - Plant Manager			
Owner/Authorized Representative or Respo	nsible	Official M	lailing Address:
Organization/Firm: Florida Power & Light	t Com	pany Mai	tin Plant
Street Address: 21900 SW Warfield Blv	d		
City: Indiantown	State:	FL	Zip Code: 34956-0176
Owner/Authorized Representative or Respo	nsible	Official T	elephone Numbers:
Telephone: (772)597-7106		Fax: (772) 597-7416
Owner/Authorized Representative or Respo	nsible	Official S	talement:
the responsible official (check here [], application, whichever is applicable. I he formed after reasonable inquiry, that the accurate and complete and that, to the be reported in this application are based up emissions. The air pollutant emissions within this application will be operated and ne standards for control of air pollutant emand rules of the Department of Environment understand that a permit, if granted by the authorization from the Department, and	if so) of ereby estates of on reconstruction in the control of the	of the Title certify, be ments mad my knowlessonable to dir poll ined so as found in Protection partment, promptly	e V source addressed in this ased on information and belief de in this application are true, edge, any estimates of emissions echniques for calculating ution control equipment described to comply with all applicable the statutes of the State of Florida and revisions thereof. I cannot be transferred without
	Name and Title of Owner/Authorized Representative or Response Organization/Firm: Florida Power & Light Street Address: 21900 SW Warfield Blv City: Indiantown Owner/Authorized Representative or Response Telephone: (772) 597-7106 Owner/Authorized Representative or Response I, the undersigned, am the owner or authorized Representative or Responsible official (check here [1]), application, whichever is applicable. I he formed after reasonable inquiry, that the accurate and complete and that, to the bereported in this application are based upenissions. The air pollutant emissions upon this application will be operated and instandards for control of air pollutant emand rules of the Department of Environment understand that a permit, if granted by the authorization from the Department, and legal transfer of any permitted emissions.	Name and Title of Owner/Authorized Representative Keith Hardy - Plant Manager Owner/Authorized Representative or Responsible Organization/Firm: Florida Power & Light Com Street Address: 21900 SW Warfield Blvd City: Indiantown State: Owner/Authorized Representative or Responsible Telephone: (772) 597-7106 Owner/Authorized Representative or Responsible I, the undersigned, am the owner or authorized the responsible official (check here [], if so) of application, whichever is applicable. I hereby formed after reasonable inquiry, that the states accurate and complete and that, to the best of reported in this application are based upon rea- emissions. The air pollutant emissions units an in this application will be operated and maintal standards for control of air pollutant emissions and rules of the Department of Environmental understand that a permit, if granted by the Dep authorization from the Department, and I will legal transfer of any permitted emissions unit.	Name and Title of Owner/Authorized Representative or Res Keith Hardy - Plant Manager Owner/Authorized Representative or Responsible Official M Organization/Firm: Florida Power & Light Company Man Street Address: 21900 SW Warfield Blvd City: Indiantown State: FL Owner/Authorized Representative or Responsible Official T Telephone: (772) 597-7106 Fax: (7 Owner/Authorized Representative or Responsible Official S I, the undersigned, am the owner or authorized represent the responsible official (check here [], if so) of the Title application, whichever is applicable. I hereby certify, be formed after reasonable inquiry, that the statements mad accurate and complete and that, to the best of my knowle reported in this application are based upon reasonable to emissions. The air pollutant emissions units and air poll in this application will be operated and maintained so as standards for control of air pollutant emissions found in and rules of the Department of Environmental Protection understand that a permit, if granted by the Department, authorization from the Department, and I will promptly legal transfer of any permitted emissions unit.

Professional Engineer Certification

1.	Professional Engineer Name: I	Kennard F. Kosky	y	
	Registration Number:	14996		
2.	Professional Engineer Mailing Organization/Firm: Golder As			
	Street Address: 6241 NW 23	rd Str ee t, suite 50	0	
	City: Gainesville	State	FL	Zip Code: 32653
3.	Professional Engineer Telepho	ne Numbers:	·	
	Telephone: (352) 336- 560	0	Fax:(352)	336-6603

DEP Form No. 62-210.900(1) - Form

Effective: 2/11/99

^{*} Attach letter of authorization if not currently on file.

4.	Professional	Engineer	Statement:
• •	- TOTOSTORIAL		Statomic.

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

- (1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
- (2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

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

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

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

Thomas 7.19 Mg	7/2/03
Signature	Date
)/	

* Attach any exception to certification statement.

Golder Associates Inc. - Board of Professional Engineers Certificate No. 00001670

Scope of Application

Emissions		Permit	Processing
Unit ID	Description of Emissions Unit	Type	Fee
001	Fossil Fired Steam Generator #1		N/A
002	Fossil Fired Steam Generator #1		N/A
003	Combined Cycle Unit 3A, 1 CT & 1 HRSG		N/A
004	Combined Cycle Unit 3B, 1 CT & 1 HRSG		N/A
005	Combined Cycle Unit 4A, 1 CT & 1 HRSG		N/A
006	Combined Cycle Unit 4B, 1 CT & 1 HRSG		N/A
007	Auxiliary Boiler		N/A
009	Emergency Diesel Generator		N/A
011	Simple Cycle Unit No. 8A		N/A
012	Simple Cycle Unit No. 8B		N/A
013	Natural Gas Fuel Heaters		N/A
xxx	Diesel Generator (for Units -001 and -002)		N/A
XXX	Facility-\vide Fugitive Emissions for PM		N/A
xxx	Facility-wide Fugitive Emissions for VOC's		N/A

Application Processing Fee

Check one: [] Attached - Amount: \$	[X] Not Applicable
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Construction/Modification Information
1. Description of Proposed Project or Alterations:
2. Projected or Actual Date of Commencement of Construction:
3. Projected Date of Completion of Construction:
Application Comment
Application submittal is for the renewal of the Martin Title V Air Operating permit. This facility is not subject to Compliance Assurance Monitoring (CAM) provisions (see
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II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

 Facility UTM Coord 	dinates:		
Zone: 17	East (km)): 543158.66 No	orth (km): 2992976.58
2. Facility Latitude/Lo	ngitude:		
Latitude (DD/MM/S	SS): 27° 03' 29" Longi	tude (DD/MM/SS): 80	° 33' 54"
3. Governmental	4. Facility Status	5. Facility Major	6. Facility SIC(s):
Facility Code:	Code:	Group SIC Code:	•
О	Λ	49	4911
gas fired conventional reheat turbine general	steam electric generat tor; Two natural gas a wo Combustion Turbi	ing units (Units 1 and nd oil fired Combined nes for each unit firing	Cycle Units (Units 3 g into a Heat Recovery

Facility Contact

l.	Name and Title of Facility Contact	: Willie Welch, Envi	ronmental Specialist
2.	Facility Contact Mailing Address: Organization/Firm: Florida Power	& Light Martin Pla	nt
	Street Address: P.O. Box 176		
	City: Indiantown	State: FL	Zip Code: 34956-0176
3.	Facility Contact Telephone Numbe	rs:	
	Telephone: (772) 597-7211	Fax: (772) 597	7-7416

Facility Regulatory Classifications

Check all that apply:

1. [] Small Business Stationary Source? [] Unknown
2. [X] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?
3. [] Synthetic Minor Source of Pollutants Other than HAPs?
4. [X] Major Source of Hazardous Air Pollutants (HAPs)?
5. [] Synthetic Minor Source of HAPs?
6. [X] One or More Emissions Units Subject to NSPS?
7. [X] One or More Emission Units Subject to NESHAP?
8. [] Title V Source by EPA Designation?
9. Facility Regulatory Classifications Comment (limit to 200 characters):
Units 1 and 2 are subject to 40 CFR 60 Subpart D, Units 3 and 4 are subject to 40 CFR 60 Subpart GG, Simple Cycle Units 8A and 8B are subject to 40 CFR 60 Subpart GG, Auxiliary Boiler is subject to 40 CFR 60 Subpart Dc. The existing Title V permitted facility is a major source of hazardous air pollutants (Title III).

List of Applicable Regulations

	<u> </u>
All applicable FAC regulations are covered under existing Title V permit and there are no additional requirements.	
See Title V Core List.	

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested E	missions Cap	4. Basis for Emissions	5. Pollutant
Limited	Classii.	lb/hour	tons/year	Cap	Comment
SO2	A				
NOx	A				
СО	A				
PM	A				
PM10	A				
VOC	A				
Н133	A				
SAM	A				
H106	A				
H107	A				

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

Area Map Showing Facility Location: [X] Attached, Document ID: PMRFS-1.bmp[] Not Applicable [] Waiver
Requested
2. Facility Plot Plan: [X] Attached, Document ID: PMRFS-2a.bmp, PMRFS-2b.bmp, PMRFS-2c.bmp, PMRFS-2d-1.bmp, & PMRFS-2e-1.bmp. [] Not Applicable [] Waiver Requested
3. Process Flow Diagram(s): [X] Attached, Document ID: PMRFS-3.bmp [] Not Applicable [] Waiver Requested (See also Attachment PMRU9-1.bmp.)
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [X] Attached, Document ID: PMRFS-4.txt [] Not Applicable [] Waiver Requested
5. Fugitive Emissions Identification: [X] Attached, Document ID: PMRFS-5.txt [] Not Applicable [] Waiver Requested
Supplemental Information for Construction Permit Application: Attached, Document ID: Not Applicable
7. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

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

Emissions Unit Information Section	1	of_	<u>10</u>	Fossil Steam Unit 1
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III. EMISSIONS UNIT INFORMATION

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

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

101	missions emit Des	cription and Status				
1.	Type of Emission	ns Unit Addressed in Thi	is Section: (Check one)			
[3	process or prod		on addresses, as a single emis which produces one or more on point (stack or vent).			
[. , ,					
[process or prod	uction units and activitie	on addresses, as a single emises which produce fugitive em	ssions unit, one or more hissions only.		
2.	Regulated or Unr	egulated Emissions Unit	? (Check one)			
[}	() The emissions emissions unit.	unit addressed in this En	nissions Unit Information Sec	ction is a regulated		
[[] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.					
3.	3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Fossil Fuel Fired Steam Generator # 1					
4.	Emissions Unit Id	dentification Number:		[] No ID		
	ID: 01			[] ID Unknown		
5.	Emissions Unit Status Code:	6. Initial Startup Date: 12/1980	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? [Y]		
9.	Emissions Unit C	Comment: (Limit to 500 C	Characters)	<u> </u>		
			ominal 863 MW(electrical)	steam generator		
	fired on Natural	Gas or using No.2 or N	io.6 fuel oil and consists of	a boiler/steam		
		g a single reheat turbin				
l						

1. Control Equipment/Method Description (Limit to 200 charact	ers per device or method)
Multiple Cyclone w/o Fly Ash Reinjection Staged Combustion	•
2. Control Device or Method Code(s): 077, 025	
2. Control Device or Method Code(s): 077, 025 Emissions Unit Details	
Emissions Unit Details	
Emissions Unit Details . Package Unit:	N/A
Emissions Unit Details Package Unit: Manufacturer: N/A Model Number: 1	N/A
Emissions Unit Details Package Unit: Manufacturer: N/A Model Number: Generator Nameplate Rating: 863.3 MW	N/A
Emissions Unit Details Package Unit: Manufacturer: N/A Generator Nameplate Rating: Incinerator Information:	
Emissions Unit Details Package Unit: Manufacturer: N/A Generator Nameplate Rating: 863.3 MW	N/A °IF seconds

Emissions Unit Information Section <u>1</u> of <u>10</u> Fossil Steam Unit 1

Emissions Unit Information Section	<u> </u>	of _	<u>10</u>	Fossil Steam Unit
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B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

Maximum Heat Input Rate:	9,040	mmBtu/hr		
Maximum Incineration Rate:		lb/hr		tons/day
Maximum Process or Throughpu	it Rate:			
Maximum Production Rate:	·-· · . <u>-</u> -			
Requested Maximum Operating	Schedule:			
	hours/day			days/week
	weeks/yea	ır	8760	hours/year
_	Maximum Incineration Rate: Maximum Process or Throughpt Maximum Production Rate: Requested Maximum Operating Operating Capacity/Schedule Co Maximum Heat Input Rate bas note for purpose of particulate	Maximum Incineration Rate: Maximum Process or Throughput Rate: Maximum Production Rate: Requested Maximum Operating Schedule: hours/day weeks/yea Operating Capacity/Schedule Comment (lin Maximum Heat Input Rate based on firin note for purpose of particulate testing inf	Maximum Incineration Rate: lb/hr Maximum Process or Throughput Rate: Maximum Production Rate: Requested Maximum Operating Schedule: hours/day weeks/year Operating Capacity/Schedule Comment (limit to 200 chara Maximum Heat Input Rate based on firing Natural Gas	Maximum Incineration Rate: lb/hr Maximum Process or Throughput Rate: Maximum Production Rate: Requested Maximum Operating Schedule: hours/day weeks/year 8760 Operating Capacity/Schedule Comment (limit to 200 characters): Maximum Heat Input Rate based on firing Natural Gas provided note for purpose of particulate testing information when applicate

Emissions Unit Information Section	1	of	10	Fossil Steam Unit 1

List of Applicable Federal Regulations

40 CFR 60.42 (a)(1), NSPS	Compliance with fuel oil Sulfur limits
40 CFR 60.42 (a)(2), NSPS	Compliance with fuel oil Sulfur limits
40 CFR 60.43 (a)(1), NSPS	Compliance with visible Emission limits
40 CFR 60.43 (b), NSPS	Compliance with visible Emission limits
40 CFR 60.43 (c) , NSPS	Compliance with visible Emission limits
40 CFR 60.44 (a)(1), NSPS	Compliance with SO2 emission limits
40 CFR 60.44 (b)(2), NSPS	Compliance with SO2 emission limits
40 CFR 60.45 (a), NSPS	Requirements for CEMS
40 CFR 60.45 (b)(1), NSPS	Requirements for CEMS
40 CFR 60.45 (b)(2), NSPS	Requirements for CEMS
40 CFR 60.45 (b)(3), NSPS	Requirements for CEMS
40 CFR 60.45 (b)(4) , NSPS	Requirements for CEMS
40 CFR 60.45 (c), NSPS	Requirements for CEMS
40 CFR 60.45 (e), NSPS	Requirements for CEMS
40 CFR 60.45 (g)(1) , NSPS	Requirements for CEMS
40 CFR 60.45 (g)(2) , NSPS	Requirements for CEMS
40 CFR 60.45 (g)(3), NSPS	Requirements for CEMS
40 CFR 60.46 (a) , NSPS	Compliance Reference Test Methods. Requirements
40 CFR 60.46 (b), NSPS	Compliance Reference Test Methods Requirements

	Emissions !	Unit Inform	nation Section	1	of	10	Fossil Steam	Unit
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List of Applicable Federal Regulations

40 CFR 60.46 (c), NSPS	Compliance Reference Test Methods Requirements
40 CFR 60.46 (d)(1), NSPS	Compliance ReferenceTest Methods Requirements
40 CFR 60.46 (d)(2), NSPS	Compliance Reference Test Methods Requirements
40 CFR 60.46 (d)(3), NSPS	Compliance Reference Test Methods Requirements
40 CFR 60.46 (d)(4), NSPS	Compliance Reference Test Methods Requirements
40 CFR 60.46 (d)(5), NSPS	Compliance Reference Test Methods Requirements
40 CFR 279.72, Analysis and Records	On-Specification Used Oil
40 CFR 60.11(a), NSPS	Compliance with Opacity limits
40 CFR 60.11(b), NSPS	Compliance with Opacity limits
40 CFR 60.11(c), NSPS	Compliance with Opacity limits
40 CFR 60.11(d), NSPS	Compliance with Opacity limits
40 CFR 60.11(e)(2), NSPS	Compliance with Opacity limits
40 CFR 60.12, NSPS	Circumvention of Monitoring Requirements
40 CFR 60.13(a), NSPS	Continuous Emission Monitoring
40 CFR 60.13(d)(1), NSPS	Continuous Emission Monitoring
40 CFR 60.13(e), NSPS	Continuous Emission Monitoring
40 CFR 60.13(e), NSPS	Continuous Emission Monitoring
40 CFR 60.7(b), NSPS	Excess Emissions Reports
40 CFR 60.7(f), NSPS	Excess Emissions Reports

C. EMISSIONS UNIT REGULATIONS

Emissions Unit Information Section	1	of	10	Fossil Steam Unit

(Regulated Emissions Units Only)

List of Applicable Federal Regulations

40 CFR 72.9 (a), Acid Rain Permits	Permit requirements
40 CFR 72.9 (b), Acid Rain Permits	Monitoring Requirements
40 CFR 72.9 (c)(1), Acid Rain Permits	SO2 Allowance Requirements - Holding
40 CFR 72.9 (c)(2), Acid Rain Permits	SO2 Allowance - Excess Emissions Violations
40 CFR 72.9 (c)(3)(iii), Acid Rain Permits	SO2 Allowance - Phase II Unit applicability
40 CFR 72.9 (c)(4), Acid Rain Permits	SO2 Allowance Tracking System Accounts
40 CFR 72.9 (c)(5), Acid Rain Permits	SO2 Allowance Year of Use Requirement
40 CFR 72.9 (d), Acid Rain Permits	NOx Requirements
40 CFR 72.9 (e), Acid Rain Permits	Excess Emission Requirements & Offsets
40 CFR 72.9 (f), Acid Rain Permits	Recordkeeping and Reporting
40 CFR 72.9 (g), Acid Rain Permits	Liability and Civil Penalty
40 CFR 72.20 (a), Acid Rain Permits	Designated Representative Requirement
40 CFR 72.20 (b), Acid Rain Permits	Designated Representative Legal Binding
40 CFR 72.20 (c), Acid Rain Permits	Designated Representative Certification
40 CFR 72.21, Acid Rain Permits	Submissions by Designated Representative
40 CFR 72.22, Acid Rain Permits	Alternate Designated Representative Requirement
40 CFR 72.23, Acid Rain Permits	Changing Designated Representatives or Owners
40 CFR 72.24, Acid Rain Permits	Designated Representative Certificate of Representation
40 CFR 72.30 (a), Acid Rain Permits	Acid Rain Permit Duty to Apply

Emissions Unit	Information Section	ı 1	of	10	Fossil Steam	Unit :

List of Applicable Federal Regulations

40 CFR 72.30 (b) (2), Acid Rain Permits	Acid Rain Permit Requirements to apply for Phase II
40 CFR 72.30 (c), Acid Rain Permits	Acid Rain Permit Renewal application prior to Permit Expiration
40 CFR 72.30 (d), Acid Rain Permits	Acid Rain Permit Submittal Requirements
40 CFR 72.31, Acid Rain Permits	Acid Rain Permit Information Requirements
40 CFR 72.32, Acid Rain Permits	Permit Application Shield
40 CFR 72.33 (b), Acid Rain Permits	Identification of Dispatch System
40 CFR 72.33 (c), Acid Rain Permits	Dispatch System Requirements
40 CFR 72.33 (d), Acid Rain Permits	Changing Dispatch System Identification
40 CFR 72.40, Acid Rain Permits	Compliance Plan Application Requirements
40 CFR 72.50, Acid Rain Permits	General Permit Requirements
40 CFR 72.51, Acid Rain Permits	Permit Shield
40 CFR 72.90, Acid Rain Permits	Annual Compliance Certification
40 CFR 73.30, SO2 Allowance System	Allowance Tracking System Accounts
40 CFR 73.31, SO2 Allowance System	Establishment of Accounts
40 CFR 73.32, SO2 Allowance System	Allowance Account Contents
40 CFR 73.33, SO2 Allowance System	Authorized Account Representative
40 CFR 73.35 (a), SO2 Allowance System	Compliance and Allowance Transfer Deadline
40 CFR 73.35 (b), SO2 Allowance System	Allowance Deductions for Compliance
40 CFR 73.35 (c), SO2 Allowance System	Identification of Allowances by Serial Number

Emissions Unit Information Section	1_	of	10	Fossil Steam Unit
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List of Applicable Federal Regulations

40 CFR 73.35 (d), SO2 Allowance System	Deductions for Excess Emissions
40 CFR 75.4, CEMS	Compliance Dates
40 CFR 75.5, CEMS	Prohibitions
40 CFR 75.10 (a) (1), CEMS	Primary Measurement - SO2
40 CFR 75.10 (a) (2), CEMS	Primary Measurement - NOx
40 CFR 75.10 (a) (3) (iii), CEMS	Primary Measurement - CO2 & O2 Monitor
40 CFR 75.10 (b), CEMS	Primary Equipment Performance Requirements
40 CFR 75.10 (c), CEMS	Heat Input Measurement Requirement
40 CFR 75.10 (e), CEMS	Optional Backup Monitor Requirements
40 CFR 75.10 (f), CEMS	Minimum Measurement Capability
40 CFR 75.11 (d), CEMS	SO2 Emission Monitoring Requirements for Gas-Fired Units
40 CFR 75.11 (e), CEMS	SO2 Emissions Monitoring Gas-Fired Units
40 CFR 75.12 (a), CEMS	NOx Monitoring
40 CFR 75.12 (b), CEMS	NOx Monitoring Moisture Correction
40 CFR 75.12 (c), CEMS	NOx Monitoring Determination of NOx Emission Rate - Appendix F
40 CFR 75.13 (b), CEMS	CO2 Emissions Monitoring Appendix G
40 CFR 75.13 (c), CEMS	CO2 Mass Emissions Monitoring Appendix F
40 CFR 75.14 (c), CEMS	Opacity Monitoring Gas Unit Exemption
40 CFR 75.20 (a), CEMS	Initial Certification & Loss of Certification

Emissions Unit Information Section	1_	of	10	Fossil Steam	Unit
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List of Applicable Federal Regulations

40 CFR 75.20 (b), CEMS	Recertification Approval Process
40 CFR 75.20 (c), CEMS	Certification Procedures
40 CFR 75.20 (d), CEMS	Certification and QA/QC for Backup Monitors
40 CFR 75.20 (f), CEMS	Certification of Alternative Monitoring Systems
40 CFR 75.21 (a), CEMS	CEMS QA/QC
40 CFR 75.21 (c), CEMS	Calibration Gasses for CEMS QA/QC
40 CFR 75.21 (d), CEMS	QA/QC RATA Periodic Notification
40 CFR 75.21 (e), CEMS	QA/QC Audit Consequences
40 CFR 75.22 , CEMS	Reference Test Methods
40 CFR 75.24 , CEMS	Out of Control Periods and Bias Adjustment
40 CFR 75.30 (a)(3), CEMS	NOx Missing Data Substitution Procedures
40 CFR 75.30 (a)(4), CEMS	SO2 Missing Data Substitution Procedures
40 CFR 75.30 (b), CEMS	Missing Data Substitution Procedures for Backup Monitors
40 CFR 75.30 (c), CEMS	Missing Data Substitution using Backup Monitors
40 CFR 75.30 (d), CEMS	SO2 Missing Data Substitution - Gas Units
40 CFR 75.31 , CEMS	Initial Missing Data Procedures
40 CFR 75.32 , CEMS	Monitoring Data Availability for Missing Data
40 CFR 75.33 , CEMS	Standard Missing Data Procedures
40 CFR 75.36, CEMS	Missing Data for Heat Input

Emissions Unit Information Section	1_	of	<u>10</u>	Fossil Steam Ui	ait	1
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List of Applicable Federal Regulations

40 CFR 75.40 , CEMS	Alternate Monitoring Systems General Demonstration Requirements
40 CFR 75.41, CEMS	Alternate Monitoring Systems Precision Criteria
40 CFR 75.42 , CEMS	Alternate Monitoring Systems Reliability Criteria
40 CFR 75.43 , CEMS	Alternate Monitoring Systems Accessibility Criteria
40 CFR 75.44 , CEMS	Alternate Monitoring Systems Timeliness Criteria
40 CFR 75.45 , CEMS	Alternate Monitoring Systems Daily QA
40 CFR 75.46, CEMS	Alternate Monitoring Systems Missing Data Substitution Criteria
40 CFR 75.47 , CEMS	Alternate Monitoring Systems Criteria For a Class of Affected Unit
40 CFR 75.48 , CEMS	Petition for Alternate Monitoring Systems
40 CFR 75.53 , CEMS	Monitoring Plan
40 CFR 75.54 , CEMS	General Recordkeeping Provisions
40 CFR 75.55 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.55 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.56 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.57 , CEMS	General Recordkeeping Provisions
40 CFR 75.58 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.58 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.59 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.60 , CEMS	General Reporting Requirements

Emissions Unit Information Section	1	of	10	Fossil Steam Unit 1
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List of Applicable Federal Regulations

40 CFR 75.61 , CEMS	Reporting Requirements Notifications
40 CFR 75.62 , CEMS	Monitoring Plan Reporting Requirements
40 CFR 75.63 , CEMS	Certification Reporting Requirements
40 CFR 75.64 (a) , CEMS	Quarterly Reports Submission
40 CFR 75.64 (b), CEMS	Quarterly Reports Designated Representative Statement
40 CFR 75.64 (c) , CEMS	Quarterly Reports Compliance Certification
40 CFR 75.64 (d) , CEMS	Quarterly Reports Electronic Submittal
40 CFR 75.66, CEMS	Petitions to the Administrator (if required)
40 CFR Part 75 - Appendix A-1	Installation and Measurement Locations
40 CFR Part 75 - Appendix A-2	Equipment Specifications
40 CFR Part 75 - Appendix A-3	Performance Specifications
40 CFR Part 75 - Appendix A-4	Data Handling and Acquisition Systems
40 CFR Part 75 - Appendix A-5	Calibration Gasses
40 CFR Part 75 - Appendix A-6	Certification Tests and Procedures
40 CFR Part 75 - Appendix A-7	Calculations
40 CFR Part 75 - Appendix B	QA/QC Procedures
40 CFR Part 75 - Appendix C-1	Missing Data; SO2 & NOx for controlled sources
40 CFR Part 75 - Appendix C-2	Missing Data ; Load Based Procedure; NOx & Flow
40 CFR Part 75 - Appendix D	Optional SO2 Emissions Protocol for Gas Fired Units

Emissions Unit Information Section	1_	of	10	Fossil Steam Unit 1
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List of Applicable Federal Regulations

10 0000	
40 CFR Part 75 - Appendix F	Conversion Procedures
40 CFR Part 75 - Appendix G-2	Conversion Procedures
10 CFR Part 75 - Appendix G-4	Conversion Procedures
0 CFR Part 75 - Appendix H	Conversion Procedures
10 CFR 77.3, Excess Emissions	Future SO2 Offset Plans
10 CFR 77.5 (b), Excess Emissions	Future Deduction of SO2 Allowances for Excess SO2 Emissions
0 CFR 77.6, Excess Emissions	Future Penalties for Excess Emissions of SO2 and NOx
	SO2 and NOx

Emissions Unit Information Section	1	of	10	Fossil Steam U	Unit 1
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(Regulated Emissions Units Only)

List of Applicable State Regulations

FAC 62-204.800(12) (State Only)	Acid Rain Program
FAC 62-204.800(13) (State Only)	Allowances
FAC 62-204.800(14) (State Only)	Acid Rain Program Monitoring
FAC 62-204.800(16) (State Only)	Excess Emissions
FAC 62-210.650, Stationary Sources	Circumvention; EU's with control device
FAC 62-210.700 (1), Stationary Sources	Excess Emissions
FAC 62-210.700 (4), Stationary Sources	Excess Emissions & Poor Maintenance
FAC 62-210.700 (6), Stationary Sources	Excess Emissions Notification
FAC 62-210.300 , Acid Rain	Acid Rain Unit Applicability
FAC 62-210.320 (1)(a),(2), Acid Rain	Acid Rain Unit Application Shield
FAC 62-210.330 (1)(a)1., Acid Rain	Acid Rain Unit Compliance Options
FAC 62-210.340 , Acid Rain	New and Retired Unit Exemptions
FAC 62-210.350(2);(3);(6), Acid Rain	Acid Rain Unit Certification
FAC 62-210.370 , Acid Rain	Acid Rain Unit Revisions & Corrections
FAC 62-210.430 , Acid Rain	Compliance Options for Acid Rain Units
FAC 62-296.405(2), New FFSG	NSPS
FAC 62-297.310(1), Emiss. Monitoring	Test Runs - Mass Emissions
FAC 62-297.310(2)(b), Emiss. Monitoring	Operating Rate
FAC 62-297.310(3), Emiss. Monitoring	Calculation of Emissions

Emissions Unit Information Section	1_	_of_	10	Fossil Steam	Unit	ł
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List of Applicable State Regulations

Table 62-297.310-1, Emiss. Monitoring	
FAC 62-297.310(7)(a)9, Emiss. Monitoring	FDEP Notification 15 days prior to tests
FAC 62-297.310(7)(c), Emiss. Monitoring	Waiver for Compliance Tests for Fuel Sampling
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Emissions Unit Information Section	<u> </u>	of	<u>10</u>	Fossil Steam Unit	: 1
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D. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on P Flow Diagram? See Figure		2. Emissi	on Point Type Code:	1			
3. Descriptions of Emission P	3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to						
100 characters per point):				(
Unit exhaust through sing	gle stack						
4. ID Numbers or Description	e of Emission Ur	nite with this En	viccion Point in Comme				
4. ID Numbers of Description	s of Emission of	ints with this En	ussion rount in Comme	on:			
5. Discharge Type Code:	6. Stack Heigl		7. Exit Diameter:				
V		499 feet	36	feet			
8. Exit Temperature:		umetric Flow	10. Water Vapor:				
338 °F	Rate: 2,6	634,519 acfm		⁰ / ₀			
11. Maximum Dry Standard Flo		12. Nonstack I	Emission Point Height:				
	dscfm			feet			
13. Emission Point UTM Coord	linates:	W - 1					
Zone: 17 E	ast (km): 5430	075 Nor	th (km): 2993085				
14. Emission Point Comment (limit to 200 chara	acters):					
Values for fields 8 and 9 d	erived from con	npliance tests (EPA Method 17)				
(July 7, 1994)		•	,				
				1			

Emissions Unit Information Section	<u>1</u>	of_	<u>10</u>	Fossil Steam Unit 1
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E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

Segment Description and Rate: Segment 1 of 7 1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Unit 1 Firing Natural Gas** 2. Source Classification Code (SCC): 3. SCC Units: 1-01-006-01 **Million Cubic Feet** 4. Maximum Hourly Rate: 5. Maximum Annual Rate: 6. Estimated Annual Activity 8.61 75,424 Factor: 7. Maximum % Sulfur: 8. Maximum % Ash: 9. Million Btu per SCC Unit: 0.0031 1,050 10. Segment Comment (limit to 200 characters): %S = [10gr of S/1000 CF gas] * [1 lb S/7000 gr] [CF gas/0.046 lb gas]*100 = 0.0031%S Segment Description and Rate: Segment 2 of 7 1. Segment Description (Process/Fuel Type) (limit to 500 characters): Unit 1 Firing No. 6 Residual Fuel Oil 2. Source Classification Code (SCC): 3. SCC Units: 1-01-004-01 **Thousand Gallons** 4. Maximum Hourly Rate: 5. Maximum Annual Rate: 6. Estimated Annual Activity 56.9 498,513 Factor: % 7. Maximum % Sulfur: 8. Maximum % Ash: 9. Million Btu per SCC Unit: 0.7152 10. Segment Comment (limit to 200 characters): This emission unit may burn up to 1% sulfur oil provided it is blended with a sufficient quantity of natural gas such that the SO2 emissions are kept below 0.8lb/mmBtu

Emissions Unit Information	Section 1	of <u>10</u> Fo	ssil	Steam Unit 1
E. SEG	MENT (PROCE (All Emi	CSS/FUEL) INF issions Units)	ORI	MATION
Segment Description and Ra	ate: Segment_	<u>3</u> of <u>7</u>		
Segment Description (Pro Unit 1 Firing Propane	cess/Fuel Type)	(limit to 500 cha	ıract	ers):
• /		3. SCC Units Million Cu		Feet
4. Maximum Hourly Rate: 8.65	5. Maximum 865		T	Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit: 1,000
10. Segment Comment (limit Unit 1 is currently permit propane, or on-spec. used of lighting off the boiler for sta	itted to burn a n il from FPL ope	nixture of natur	al g	as, No. 6 oil, No. 2 oil, primarily used for
Segment Description and Ra	te: Segment	<u>4</u> of <u>7</u>		
1. Segment Description (Prod Unit 1 Firing No. 2 Fuel ((limit to 500 ch	aract	ers);
2. Source Classification Code	e (SCC):	3. SCC Units	:	

5. Maximum Annual Rate:

557,162.3

Unit 1 is currently permitted to burn a mixture of natural gas, No. 6 oil, No. 2 oil, propane, or on-spec. used oil from FPL operations. No. 2 oil is primarily used for

8. Maximum % Ash:

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1-01-005-01

63.603

0.007

during boiler for start-up.

10. Segment Comment (limit to 200 characters):

4. Maximum Hourly Rate:

7. Maximum % Sulfur:

Factor:

6. Estimated Annual Activity

9. Million Btu per SCC Unit:

136

%

Thousand Gallons

Emissions Unit Information Section	<u>1</u>	of_	10	Fossil Steam U	Jnit	1
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E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)

		(All Elli				
Se	gment Description and Ra	te: Segment	<u>5</u> of <u>7</u>			
1.	Segment Description (Proc Unit 1 Co-Firing On-Spe	• •	•	-		
2.	Source Classification Code	e (SCC):	3. SCC Units Thousand			
4.	Maximum Hourly Rate: 0.5	5. Maximum 1	Annual Rate: ,500	6. Estimated Annual Activity Factor:		
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:		
ma per	ex. sulfur content of 0.7%	n is for co-firing is the current li ximum annual l	g with Natural mit. FPL burns	gas. When firing 100% oil, a sonly on-specification used oil, a both Units 1 and 2 (current		
Se	gment Description and Ra	te: Segment	<u>6</u> of <u>7</u>			
1. Segment Description (Process/Fuel Type) (limit to 500 characters): Unit 1 Co-Firing all possible combinations of Natural Gas, No. 6 Residual Oil, No. 2 Fuel Oil, On-Spec. Used Oil, and Propane						
			•	,		
2.	Source Classification Coc 1-01-006-01	•	3. SCC Unit	s: pic Ft. and Thousand Gallons		
		le (SCC):	3. SCC Unit			
	1-01-006-01 Maximum Hourly Rate:	le (SCC): 5. Maximum	3. SCC Unit Million Cut Annual Rate:	6. Estimated Annual Activity		

Em	nissions Unit Information	Section1_	of <u>1</u>	<u>)</u>	Fossil S	Steam Unit 1
	E. SEGN	MENT (PROCE (All Emis				MATION
<u>Seg</u>	ment Description and Ra	ite: Segment	<u>7</u> of _	_7	=	
	Segment Description (Proc Unit 1 Boiler Chemical C while firing natural gas o	leaning waste e				ers): ocess may be undertaken
2.	Source Classification Code	e (SCC):	3. SC			
	1-01-013-01		Thousand Gallons			
4.	Maximum Hourly Rate:	5. Maximum A	Annual 1	Rate:	6.	Estimated Annual Activity
	3	7	00		•	Factor:
7.	Maximum % Sulfur:	8. Maximum 9	% Sulfu	r:	9.	Million Btu per SCC Unit:
10.	Segment Comment (limit t	to 200 characters)):		!	

Items 6 - 9 do not apply. This activity to be undertaken on a periodic basis in accordance with DARM guidance, and EPA waste rules (40 CFR 279.72) and may include evaporation of waste from Units 3 & 4 HRSGs.

Emissions Unit Information Section	1	of	10	Fossil Steam Unit
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F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	077	Device Code	EL.
PWI	0//		EL
SO2			EL
NOx	025	026	EL
СО			NS
VOC			NS
PM10			NS
H133			NS
SAM			NS
H106			NS
H107			NS
· · · · · · · · · · · · · · · · · · ·			
		-	

Emissions Unit Information Section	1_	of _	10	Fossil Steam Unit 1
Pollutant Detail Information Page	1	_ of _	3	

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

Potential/Fugitive Emissions								
1. Pollutant Emitted: PM	2. Total Percent Efficiency of Control:							
3. Potential Emissions: 865 lb/hour	3,788.7 tons/year	4. Synthetically Limited? [NO]						
5. Range of Estimated Fugitive Emissions:	to to	ns/year						
6. Emission Factor: 0.1 lb/mmBtu Reference: 40 CFR 60.42(a)(1)		7. Emissions Method Code: 0						
0.1 lb/mmBtu * 8,650 mmBtu/hr = 865 lb/								
·	9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):							
Allowable Emissions Allowable Emissions								
Basis for Allowable Emissions Code: Emission limit required by rule	2. Future Effective Da Emissions:	ate of Allowable						
3. Requested Allowable Emissions and Units: 0.1 lb/mmBtu	4. Equivalent Allowal 865 lb/hour 3,	ble Emissions: 315.1 tons/year						
5. Method of Compliance (limit to 60 character DEP Rule 62-296.405(1)(e)2	rs):							
6. Allowable Emissions Comment (Desc. of Or 0.1 lb/mmBtu = reg. Limit for PM [Rule 6 oil.		•						

En	nissions Unit Information Section <u>1</u> o	of_	10	_ Fossil Steam	Unit 1		
Po	llutant Detail Information Page 2 o	f	3				
G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only) Potential/Fugitive Emissions							
1.	Pollutant Emitted: SO2	2.	Total	Percent Efficie	ency of Control:		
3.	Potential Emissions: 6,920 lb/hour	30),309.0	6 tons/year	4. Synthetically Limited? [N]		
5.	Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3			to to	ns/year		
6.	Emission Factor: 0.8 lb/mmBtu; Reference: 40 CFR 60.43(a)(1)				7. Emissions Method Code: 0		
0.	8. Calculation of Emissions (limit to 600 characters): 8,650 mmBtu/hr * 0.8 lb/mmBtu = 6,920 lb/hr (6,920 lb/hr * 8760 hr/yr) / 2000 lb/ton = 30,309.6 ton/yr						
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): This emission unit is limited to firing 0.7% sulfur oil while firing 100% oil and is limited to firing 1 % sulfur oil while co-firing with Natural Gas. Compliance is based on a 3-hour averaging period.							
All	owable Emissions Allowable Emissions1	<u> </u>	_ of	1			
1.	Basis for Allowable Emissions Code: OTHER	2.		re Effective Da	te of Allowable		
3.	Requested Allowable Emissions and Units: 0.8 lb/mmBtu	4.	-	ivalent Allowab 6,920 lb/hour	1		
5.	5. Method of Compliance (limit to 60 characters): Fuel Specifications and vendor sampling and analysis						

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Equivalent allowable emissions for liquid fuel firing. This unit is subject to 40 CFR

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60.43(a)(1) requirements.

Emissions Unit Information Section 1 of 10 Fossil Steam Unit 1						
Pollutant Detail Information Page 3 o	f <u>3</u>					
G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only) Potential/Fugitive Emissions						
Pollutant Emitted: NOx	2. Total Percent Efficiency of Control:					
3. Potential Emissions: 2,595 lb/hour	4. Synthetically Limited? [No]					
5. Range of Estimated Fugitive Emissions:	to tons/year					
6. Emission Factor: 0.3 lb/mmBtu Reference: 40 CFR 60.44(a)(2)	7. Emissions Method Code: 0					
8. Calculation of Emissions (limit to 600 characters): 0.3 lb/mmBtu * 8,650 mmBtu/hr = 2,595 lb/hr (oil) (2,595 lb/hr * 8760 hr/yr) / 2000 lb/ton = 11,366.1 tons/year (oil) 0.2 lb/mmBtu * 9,040 mmBtu/hr = 1,808 lb/hr (gas) (1,808 lb/hr * 8,760 hr/yr) / 2,000 lb/ton = 7,919 tons/yr (gas) 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):						
Emission limit calculated for oil and gas c	onibustion.					
Allowable Emissions Allowable Emissions	<u>1</u> of <u>1</u>					
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:					
3. Requested Allowable Emissions and Units: 0.3 lb/mmBtu oil 0.2 lb/mmBtu natural gas	4. Equivalent Allowable Emissions: oil 2,595 lb/hour 11,366.1 tons/year gas 1,808 lb/hour 7,919 tons/year					
5. Method of Compliance (limit to 60 character CEM Part 75, arithmetic avg. of 3 consec	, ·					
6. Allowable Emissions Comment (Desc. of Op This emission unit utilizes Low NOx burn to control emissions of NOx. When co-firi on the percentage of heat input by each fu	ers as well as off-stoichoimetric combustion ing oil and gas, the emission limit is based					

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2 1. Visible Emissions Subtype: 2. Basis for Allowable Opacity: **VE20** [X] Rule 1 Other 3. Requested Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: see comment below min/hour 4. Method of Compliance: VE Test (EPA Method 9) 5. Visible Emissions Comment (limit to 200 characters): One six-minute period per hour of not more than 27% opacity (40 CFR 60.42(a)(2)). Visible Emissions Limitation: Visible Emissions Limitation 2 of 2 1. Visible Emissions Subtype: 2. Basis for Allowable Opacity: **VE99** [X] Rule 3. Requested Allowable Opacity: Normal Conditions: 100 % Exceptional Conditions: 100 % Maximum Period of Excess Opacity Allowed: 60 min/hour 4. Method of Compliance: VE Test (EPA Method 9) 5. Visible Emissions Comment (limit to 200 characters): FDEP Rule 62-210.700(1) & (2) allows up to 100% opacity for 2 hours/24 hour period for excess visible emissions from start-up, shut-down, and malfunctions.

Emissions only information section 1 of 10 rossii steam only	Emissions Unit Information Section	1	of	10	Fossil Steam Unit
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I. CONTINUOUS MONITOR INFORMATION (Only Regulated Emissions Units Subject to Continuous Monitoring)

<u>Co</u>	ontinuous Monitoring System: Continuous	Monitor <u>1</u> of <u>3</u>
1.	Parameter Code: EM	2. Pollutant(s): NOx
3.	CMS Requirement:	[X] Rule [] Other
4.	Monitor Information Manufacturer:: NOx = TECO Model Number: NOx = 42C Serial Number: NOx = 42C-74012-375	$CO_2 = Milton Roy$ $CO_2 = 3300$ $CO_2 = N3K4369T$
5.	Installation Date: 04/18/2002	6. Performance Specification Test Date: 4/24/2002
7.	Continuous Monitor Comment (limit to 200 NOx Required by 40 CFR 75.10(a)(2); CC 40 CFR 75 Appendix E. CO ₂ data is calculation G-4.	O ₂ provides % O ₂ data to NOx monitor per
	entinuous Monitoring System: Continuous	
1.	Parameter Code: EM	2. Pollutant(s): SO ₂
3.	CMS Requirement:	[X] Rule [] Other
4.	Monitor Information Manufacturer: SO ₂ Oil Mass Flow = Model Number: SO ₂ Oil Mass Flow = Discount Serial Number: SO ₂ Oil Mass Flow = 10	300
5.	Installation Date: 04/01/2000	6. Performance Specification Test Date: 04/24/2002
7.	Continuous Monitor Comment (limit to 200 SO ₂ Required by 40 CFR 75.10(a)(1); SO ₂ appendix D	

Emissions Unit Information Section	1_	of	<u>10</u>	Fossil Steam Unit 1	
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I. CONTINUOUS MONITOR INFORMATION (Only Regulated Emissions Units Subject to Continuous Monitoring)

1. Parameter Code: EM	2. Pollutant(s): Visible Emissions
3. CMS Requirement	[X] Rule [] Other
Monitor Informatic	nPhoenix Instruments
Model Number: Serial Number:	OPAC 20/20 OPAC-1069/OPAC-1070
Serial Number: 5. Installation Date: 12/13/2000	OPAC-1069/OPAC-1070 6. Performance Specification Test Date:

Emissions Unit Information Section	<u>1</u>	of	<u>10</u>	Fossil Steam Unit 1
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J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION (Regulated Emissions Units Only)

Supplemental Requirements

l	l.	Process Flow Diagram
		[X] Attached, Document ID: PMREU1-1.bmp [] Not Applicable [] Waiver Requested
l	2.	Fuel Analysis or Specification
		[X] Attached, Document ID: PMRU1-2.txt [] Not Applicable [] Waiver Requested
l	3.	Detailed Description of Control Equipment
		[X] Attached, Document ID: PMRU1-3.txt [] Not Applicable [] Waiver Requested
	4.	Description of Stack Sampling Facilities
		[X] Attached, Document ID: PMREU1-4.ipg [] Not Applicable [] Waiver Requested
l	5.	Compliance Test Report
		[] Attached, Document ID:
		[X] Previously submitted, Date: July 15, 1994
		[] Not Applicable
ľ	6.	Procedures for Startup and Shutdown
		[X.] Attached, Document ID PMRU1-6.txt [] Not Applicable [] Waiver Requested
l	7.	Operation and Maintenance Plan
		[] Attached, Document ID: [X] Not Applicable [] Waiver Requested
l	8.	Supplemental Information for Construction Permit Application
		[] Attached, Document ID: [X] Not Applicable
l	9.	Other Information Required by Rule or Statute
		[] Attached, Document ID: [X] Not Applicable
ĺ	10.	Supplemental Requirements Comment:
L		

	Emissions Unit	Information Section	1	of	10	Fossil Steam Unit
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Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation	
[X] Attached, Document ID: PMRU1-11.txt [] Not Applicable	
12. Alternative Modes of Operation (Emissions Trading)	
[] Attached, Document ID: [X] Not Applicable	
13. Identification of Additional Applicable Requirements	
[X] Attached, Document ID: PMRU1-13.txt [] Not Applicable	
14. Compliance Assurance Monitoring Plan	
[] Attached, Document ID: [X] Not Applicable	
(Note: Refer to Attachment PMRCAM)	
15. Acid Rain Part Application (Hard-copy Required)	
[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: PRMU1-15	
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:	
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:	
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:	
[] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:	
[] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:	
[] Not Applicable	
1	

Emissions Unit Information Section	<u>2</u>	of	<u>10</u>	Fossil Steam	Unit	2
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III. EMISSIONS UNIT INFORMATION

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

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

151	missions Offic Des	errption and Status				
1.	Type of Emission	ns Unit Addressed in Thi	s Section: (Check one)			
[]	[X] 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).					
[• • •					
[on addresses, as a single emises which produce fugitive em			
2.	Regulated or Unr	egulated Emissions Unit	? (Check one)			
[>	(1) The emissions emissions unit.	unit addressed in this En	nissions Unit Information Se	ction is a regulated		
[The emissions emissions unit.	unit addressed in this Em	nissions Unit Information Se	ction is an unregulated		
3.	 Description of Emissions Unit Addressed in This Section (limit to 60 characters): Fossil Fuel Fired Steam Generator # 2 					
4.	Emissions Unit Io ID: 02	lentification Number:		[] No ID [] ID Unknown		
5.	Emissions Unit Status Code:	6. Initial Startup Date: 06/1981	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? [Y]		
9.	9. Emissions Unit Comment: (Limit to 500 Characters) Emission Unit 02 (Martin Unit 2) is a nominal 863 MW(electrical) steam generator fired on Natural Gas or using No.2 or No.6 fuel oil and consists of a boiler/steam generator driving a single reheat turbine generator.					

Er	nissions Unit Control Equipment			
1.	Control Equipment/Method Descript	tion (Limi	t to 200 characters pe	r device or method):
	Multiple Cyclone w/o Fly Ash Rein Staged Combustion	njection		
2.	Control Device or Method Code(s):	077,025	-	
<u>En</u>	nissions Unit Details			
1.	Package Unit:			
	Manufacturer: N/A	M	odel Number: N/A	
2.	Generator Nameplate Rating:	863.3	MW	
3.	Incinerator Information:			
	Dwell Temperatu			°F
	Dwell Tin Incinerator Afterburner Temperatu			seconds
	In an anaton A Honless and There is a contra			°F

Emissions Unit Information Section 2 of 10 Fossil Steam Unit 2

Emissions Unit Information Section	2	of_	10	Fossil Steam Unit
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B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1.	Maximum Heat Input Rate:	9,040	mmBtu/hr		
2.	Maximum Incineration Rate:		lb/hr	**	tons/day
3.	Maximum Process or Throughpo	ıt Rate:		·	
4.	Maximum Production Rate:		····		·
5.	Requested Maximum Operating	Schedule:			
		hours/day	•		days/week
<u></u>		weeks/yea	ar	8,760	hours/year
	note for purpose of particulate heat input when firing fuel oil			n applicat	le. The maximum

List of Applicable Federal Regulations

40 CFR 60.42 (a)(1), NSPS	Compliance with fuel oil Sulfur limits
40 CFR 60.42 (a)(2), NSPS	Compliance with fuel oil Sulfur limits
40 CFR 60.43 (a)(1), NSPS	Compliance with visible Emission limits
40 CFR 60.43 (b) , NSPS	Compliance with visible Emission limits
40 CFR 60.43 (c) , NSPS	Compliance with visible Emission limits
40 CFR 60.44 (a)(1), NSPS	Compliance with SO2 emission limits
40 CFR 60.44 (b)(2), NSPS	Compliance with SO2 emission limits
40 CFR 60.45 (a) , NSPS	Requirements for CEMS
40 CFR 60.45 (b)(1), NSPS	Requirements for CEMS
40 CFR 60.45 (b)(2) , NSPS	Requirements for CEMS
40 CFR 60.45 (b)(3), NSPS	Requirements for CEMS
40 CFR 60.45 (b)(4), NSPS	Requirements for CEMS
40 CFR 60.45 (c), NSPS	Requirements for CEMS
40 CFR 60.45 (e) , NSPS	Requirements for CEMS
40 CFR 60.45 (g)(1), NSPS	Requirements for CEMS
40 CFR 60.45 (g)(2), NSPS	Requirements for CEMS
40 CFR 60.45 (g)(3), NSPS	Requirements for CEMS
40 CFR 60.46 (a) , NSPS	Compliance Reference Test Methods Requirements
40 CFR 60.46 (b), NSPS	Compliance Reference Test Methods Requirements

Emissions Unit Information Sec	tion 2	of	10	Fossil Steam	Unit	2

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40 CFR 60.46 (c), NSPS	Compliance Reference Test Methods Requirements
40 CFR 60.46 (d)(1), NSPS	Compliance ReferenceTest Methods Requirements
40 CFR 60.46 (d)(2), NSPS	Compliance Reference Test Methods Requirements
40 CFR 60.46 (d)(3), NSPS	Compliance Reference Test Methods Requirements
40 CFR 60.46 (d)(4), NSPS	Compliance Reference Test Methods Requirements
40 CFR 60.46 (d)(5), NSPS	Compliance Reference Test Methods Requirements
40 CFR 279.72, Analysis and Records	On-Specification Used Oil
40 CFR 60.11(a), NSPS	Compliance with Opacity limits
40 CFR 60.11(b), NSPS	Compliance with Opacity limits
40 CFR 60.11(c), NSPS	Compliance with Opacity limits
40 CFR 60.11(d), NSPS	Compliance with Opacity limits
40 CFR 60.11(e)(2), NSPS	Compliance with Opacity limits
40 CFR 60.12, NSPS	Circumvention of Monitoring Requirements
40 CFR 60.13(a), NSPS	Continuous Emission Monitoring
40 CFR 60.13(d)(1), NSPS	Continuous Emission Monitoring
40 CFR 60.13(e), NSPS	Continuous Emission Monitoring
40 CFR 60.13(e), NSPS	Continuous Emission Monitoring
40 CFR 60.7(b), NSPS	Excess Emissions Reports -
40 CFR 60.7(f), NSPS	Excess Emissions Reports

Emissions Unit 1	Information Se	ection	2	of	10	Fossil Steam	Unit	2

List of Applicable Federal Regulations

40 CFR 72.9 (a), Acid Rain Permits	Permit requirements
40 CFR 72.9 (b), Acid Rain Permits	Monitoring Requirements
40 CFR 72.9 (c)(1), Acid Rain Permits	SO2 Allowance Requirements - Holding
40 CFR 72.9 (c)(2), Acid Rain Permits	SO2 Allowance - Excess Emissions Violations
40 CFR 72.9 (c)(3)(iii), Acid Rain Permits	SO2 Allowance - Phase II Unit applicability
40 CFR 72.9 (c)(4), Acid Rain Permits	SO2 Allowance Tracking System Accounts
40 CFR 72.9 (c)(5), Acid Rain Permits	SO2 Allowance Year of Use Requirement
40 CFR 72.9 (d), Acid Rain Permits	NOx Requirements
40 CFR 72.9 (e), Acid Rain Permits	Excess Emission Requirements & Offsets
40 CFR 72.9 (f), Acid Rain Permits	Recordkeeping and Reporting
40 CFR 72.9 (g), Acid Rain Permits	Liability and Civil Penalty
40 CFR 72.20 (a), Acid Rain Permits	Designated Representative Requirement
40 CFR 72.20 (b), Acid Rain Permits	Designated Representative Legal Binding
40 CFR 72.20 (c), Acid Rain Permits	Designated Representative Certification
40 CFR 72.21, Acid Rain Permits	Submissions by Designated Representative
40 CFR 72.22, Acid Rain Permits	Alternate Designated Representative Requirement
40 CFR 72.23, Acid Rain Permits	Changing Designated Representatives or Owners
40 CFR 72.24, Acid Rain Permits	Designated Representative Certificate of Representation
40 CFR 72.30 (a), Acid Rain Permits	Acid Rain Permit Duty to Apply

List of Applicable Federal Regulations

40 CFR 72.30 (b) (2), Acid Rain Permits	Acid Rain Permit Requirements to apply for Phase II
40 CFR 72.30 (c), Acid Rain Permits	Acid Rain Permit Renewal application prior to Permit Expiration
40 CFR 72.30 (d), Acid Rain Permits	Acid Rain Permit Submittal Requirements
40 CFR 72.31, Acid Rain Permits	Acid Rain Permit Information Requirements
40 CFR 72.32, Acid Rain Permits	Permit Application Shield
40 CFR 72.33 (b), Acid Rain Permits	Identification of Dispatch System
40 CFR 72.33 (c), Acid Rain Permits	Dispatch System Requirements
40 CFR 72.33 (d), Acid Rain Permits	Changing Dispatch System Identification
40 CFR 72.40, Acid Rain Permits	Compliance Plan Application Requirements
40 CFR 72.50, Acid Rain Permits	General Permit Requirements
40 CFR 72.51, Acid Rain Permits	Permit Shield
40 CFR 72.90, Acid Rain Permits	Annual Compliance Certification
40 CFR 73.30, SO2 Allowance System	Allowance Tracking System Accounts
40 CFR 73.31, SO2 Allowance System	Establishment of Accounts
40 CFR 73.32, SO2 Allowance System	Allowance Account Contents
40 CFR 73.33, SO2 Allowance System	Authorized Account Representative
40 CFR 73.35 (a), SO2 Allowance System	Compliance and Allowance Transfer Deadline
40 CFR 73.35 (b), SO2 Allowance System	Allowance Deductions for Compliance
40 CFR 73.35 (c), SO2 Allowance System	Identification of Allowances by Serial Number

Emissions Unit Information Section	2	of	10	Fossil Steam Unit 2

List of Applicable Federal Regulations

40 CFR 73.35 (d), SO2 Allowance System	Deductions for Excess Emissions
40 CFR 75.4, CEMS	Compliance Dates
40 CFR 75.5, CEMS	Prohibitions
40 CFR 75.10 (a) (1), CEMS	Primary Measurement - SO2
40 CFR 75.10 (a) (2), CEMS	Primary Measurement - NOx
40 CFR 75.10 (a) (3) (iii), CEMS	Primary Measurement - CO2 & O2 Monitor
40 CFR 75.10 (b), CEMS	Primary Equipment Performance Requirements
40 CFR 75.10 (c), CEMS	Heat Input Measurement Requirement
40 CFR 75.10 (e), CEMS	Optional Backup Monitor Requirements
40 CFR 75.10 (f), CEMS	Minimum Measurement Capability
40 CFR 75.11 (d), CEMS	SO2 Emission Monitoring Requirements for Gas-Fired Units
40 CFR 75.11 (e), CEMS	SO2 Emissions Monitoring Gas-Fired Units
40 CFR 75.12 (a), CEMS	NOx Monitoring
40 CFR 75.12 (b), CEMS	NOx Monitoring Moisture Correction
40 CFR 75.12 (c), CEMS	NOx Monitoring Determination of NOx Emission Rate - Appendix F
40 CFR 75.13 (b), CEMS	CO2 Emissions Monitoring Appendix G
40 CFR 75.13 (c), CEMS	CO2 Mass Emissions Monitoring Appendix F
40 CFR 75.14 (c), CEMS	Opacity Monitoring Gas Unit Exemption
40.CFR 75.20 (a), CEMS	Initial Certification & Loss of Certification

Emissions Unit Information Section	2	of	<u>10</u>	Fossil Steam	Unit	2
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List of Applicable Federal Regulations

40 CFR 75.20 (b), CEMS	Recertification Approval Process
40 CFR 75.20 (c), CEMS	Certification Procedures
40 CFR 75.20 (d), CEMS	Certification and QA/QC for Backup Monitors
40 CFR 75.20 (f), CEMS	Certification of Alternative Monitoring Systems
40 CFR 75.21 (a), CEMS	CEMS QA/QC
40 CFR 75.21 (e), CEMS	Calibration Gasses for CEMS QA/QC
40 CFR 75.21 (d), CEMS	QA/QC RATA Periodic Notification
40 CFR 75.21 (e), CEMS	QA/QC Audit Consequences
40 CFR 75.22 , CEMS	Reference Test Methods
40 CFR 75.24, CEMS	Out of Control Periods and Bias Adjustment
40 CFR 75.30 (a)(3), CEMS	NOx Missing Data Substitution Procedures
40 CFR 75.30 (a)(4), CEMS	SO2 Missing Data Substitution Procedures
40 CFR 75.30 (b), CEMS	Missing Data Substitution Procedures for Backup Monitors
40 CFR 75.30 (c), CEMS	Missing Data Substitution using Backup Monitors
40 CFR 75.30 (d), CEMS	SO2 Missing Data Substitution - Gas Units
40 CFR 75.31 , CEMS	Initial Missing Data Procedures
40 CFR 75.32 , CEMS	Monitoring Data Availability for Missing Data
40 CFR 75.33 , CEMS	Standard Missing Data Procedures
40 CFR 75.36 , CEMS	Missing Data for Heat Input

DEP Form No. 62-210.900(1) - Form

0237560/4/4.3/4.3.1 Martin/FPL-PMR_KFK_Form1_EU10 Effective: 2/11/99 15 7/2/03

Emissions one mornation section $\frac{\pi}{2}$ or to rossi steam one.	Emissions Unit Information Section	2	of	10	Fossil Steam Unit 2
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40 CFR 75.40 , CEMS	Alternate Monitoring Systems General Demonstration Requirements
40 CFR 75.41 , CEMS	Alternate Monitoring Systems Precision Criteria
40 CFR 75.42 , CEMS	Alternate Monitoring Systems Reliability Criteria
40 CFR 75.43 , CEMS	Alternate Monitoring Systems Accessibility Criteria
40 CFR 75.44 , CEMS	Alternate Monitoring Systems Timeliness Criteria
40 CFR 75.45 , CEMS	Alternate Monitoring Systems Daily QA
40 CFR 75.46, CEMS	Alternate Monitoring Systems Missing Data Substitution Criteria
40 CFR 75.47 , CEMS	Alternate Monitoring Systems Criteria For a Class of Affected Unit
40 CFR 75.48 , CEMS	Petition for Alternate Monitoring Systems
40 CFR 75.53 , CEMS	Monitoring Plan
40 CFR 75.54 , CEMS	General Recordkeeping Provisions
40 CFR 75.55 (e), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.55 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.56 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.57 , CEMS	General Recordkeeping Provisions
40 CFR 75.58 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.58 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.59 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.60 , CEMS	General Reporting Requirements

Emissions Unit Information Section 2 of	10	Fossil Steam Unit 2
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List of Applicable Federal Regulations

40 CFR 75.61 , CEMS	Reporting Requirements Notifications
40 CFR 75.62 , CEMS	Monitoring Plan Reporting Requirements
40 CFR 75.63 , CEMS	Certification Reporting Requirements
40 CFR 75.64 (a), CEMS	Quarterly Reports Submission
40 CFR 75.64 (b), CEMS	Quarterly Reports Designated Representative Statement
40 CFR 75.64 (c), CEMS	Quarterly Reports Compliance Certification
40 CFR 75.64 (d), CEMS	Quarterly Reports Electronic Submittal
40 CFR 75.66 , CEMS	Petitions to the Administrator (if required)
40 CFR Part 75 - Appendix A-1	Installation and Measurement Locations
40 CFR Part 75 - Appendix A-2	Equipment Specifications
40 CFR Part 75 - Appendix A-3	Performance Specifications
40 CFR Part 75 - Appendix A-4	Data Handling and Acquisition Systems
40 CFR Part 75 - Appendix A-5	Calibration Gasses
40 CFR Part 75 - Appendix A-6	Certification Tests and Procedures
40 CFR Part 75 - Appendix A-7	Calculations
40 CFR Part 75 - Appendix B	QA/QC Procedures
40 CFR Part 75 - Appendix C-1	Missing Data; SO2 & NOx for controlled sources
40 CFR Part 75 - Appendix C-2	Missing Data ; Load Based Procedure; NOx & Flow
40 CFR Part 75 - Appendix D	Optional SO2 Emissions Protocol for Gas Fired Units

Emissions Unit Information Section	2	of	10	Fossil Steam Unit 2
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List of Applicable Federal Regulations

40 CFR Part 75 - Appendix F	Conversion Procedures
40 CFR Part 75 - Appendix G-2	Conversion Procedures
40 CFR Part 75 - Appendix G-4	Conversion Procedures
40 CFR Part 75 - Appendix H	Conversion Procedures
40 CFR 77.3, Excess Emissions	Future SO2 Offset Plans
40 CFR 77.5 (b), Excess Emissions	Future Deduction of SO2 Allowances for Excess SO2 Emissions
40 CFR 77.6, Excess Emissions	Future Penalties for Excess Emissions of SO2 and NOx

Emissions Unit Information Section	2	of	10	Fossil Steam Unit 2

List of Applicable State Regulations

FAC 62-204.800(12) (State Only)	Acid Rain Program
FAC 62-204.800(13) (State Only)	Allowances
FAC 62-204.800(14) (State Only)	Acid Rain Program Monitoring
FAC 62-204.800(16) (State Only)	Excess Emissions
FAC 62-210.650, Stationary Sources	Circumvention; EU's with control device
FAC 62-210.700 (1), Stationary Sources	Excess Emissions
FAC 62-210.700 (4), Stationary Sources	Excess Emissions & Poor Maintenance
FAC 62-210.700 (6), Stationary Sources	Excess Emissions Notification
FAC 62-210.300, Acid Rain	Acid Rain Unit Applicability
FAC 62-210.320 (1)(a),(2), Acid Rain	Acid Rain Unit Application Shield
FAC 62-210.330 (1)(a)1., Acid Rain	Acid Rain Unit Compliance Options
FAC 62-210.340 , Acid Rain	New and Retired Unit Exemptions
FAC 62-210.350(2);(3);(6), Acid Rain	Acid Rain Unit Certification
FAC 62-210.370 , Acid Rain	Acid Rain Unit Revisions & Corrections
FAC 62-210.430 , Acid Rain	Compliance Options for Acid Rain Units
FAC 62-296.320(4)(b),Stationary Units	CT & Diesel Unit (State Only)
FAC 62-297.405(2), New FFSG	NSPS
FAC 62-297.310(2)(b), Emiss. Monitoring	Operating Rate
FAC 62-297.310(3), Emiss. Monitoring	Calculation of Emissions

Emissions Unit Information Section	2	of	<u>10</u>	Fossil Steam Unit 2
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List of Applicable State Regulations

Table 62-297.310-1, Emiss. Monitoring	
FAC 62-297.310(7)(a)9, Emiss. Monitoring	FDEP Notification 15 days prior to tests
FAC 62-297.310(7)(c), Emiss. Monitoring	Waiver for Compliance Tests for Fuel Sampling
, , , , , , , , , , , , , , , , , , ,	
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Emissions Unit Information Section	2	of_	<u>10</u>	Fossil Steam U	nit 2
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D. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

Emission Point Description and Type

Identification of Point on P Flow Diagram? See Figure		2. Emissio	n Point Type Code:	1
3. Descriptions of Emissic (limit to 100 characters		ising this Emissic	ons Unit for VE Track	ing
Unit exhaust through sing	le stack			
4. ID Numbers or Description	s of Emission U	nits with this Emi	ission Point in Comm	on:
5. Discharge Type Code:	6. Stack Heig		7. Exit Diameter:	
V		499 feet	36	feet
8. Exit Temperature:	9. Actual Vol	umetric Flow	10. Water Vapor:	
338 °F	Rate: 2,	634,519 acfm	•	%
11. Maximum Dry Standard Flo	ow Rate: dscfm	12. Nonstack Er	mission Point Height:	feet
13. Emission Point UTM Coord	dinates:			
Zone: 17 E	ast (km): 543	075 Nort	h (km): 2993004	
14. Emission Point Comment (l	limit to 200 char	acters);		
Values for fields 8 and 9 d (July 7, 1994)	erived from co	mpliance tests (E	CPA Method 17)	

Emissions Unit Information Section 2 of 10 Fossil Steam Unit
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Segment Description and Ra	ate: Segment]	l of <u>7</u>	
1. Segment Description (Pro Unit 2 Firing Natural Ga	• • •	(limit to 500 ch	naracters):
2. Source Classification Cod 1-01-006-01	e (SCC):	3. SCC Units Million C	
4. Maximum Hourly Rate:	5. Maximum A		6. Estimated Annual Activity
8.61	75,424		Factor:
7. Maximum % Sulfur: 0.0031	8. Maximum 9	∕₀ Ash:	9. Million Btu per SCC Unit: 1,050
10. Segment Comment (limit	to 200 characters):	
8/ C - 110 - CC/1000 CT) & E4 III (0/5000	1105 10	0.44
%S = [10gr of S/1000 CF ga	s] * [1 lb S//000	gr] [CF gas/0.	046 lb gas]*100 = 0.0031%S
			
Segment Description and Ra	ite: Segment <u>2</u>	of <u>7</u>	
1. Segment Description (Prod		(limit to 500 cl	naracters):
Unit 2 Firing No. 6 Resid	lual Fuel Oil		
2 9 01 -: 6 -: 0 -1	(0,00)		
2. Source Classification Code 1-01-004-01	e (SCC):	3. SCC Unit	
4. Maximum Hourly Rate:	5. Maximum A		6. Estimated Annual Activity
56.9	498,51		Factor: %
7. Maximum % Sulfur:	8. Maximum %		9. Million Btu per SCC Unit:
0.7			152
10. Segment Comment (limit t	,		
This emission unit may b	ourn up to 1% su	ılfur oil provic	led it is blended with a
sufficient quantity of nat 0.8lb/mmBtu	ural gas such the	at the SO2 em	issions are kept below
v.o.w/mmptu			
			·····

Emissions Unit Information Section	2	of	10	Fossil Steam Unit 2
	_	•		1 OSSII STUMIN CHILL

Segment Description and Ra	ate: Segment3	of <u>7</u>	
Segment Description (Pro Unit 2 Firing Propane	cess/Fuel Type) (limit to 500 ch	aracters):
	-		
2. Source Classification Cod	e (SCC):	3. SCC Units	<u> </u>
1-01-006-01		Million C	
4. Maximum Hourly Rate: 8.65	5. Maximum / 865	Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum %	∕₀ Ash:	9. Million Btu per SCC Unit: 1,000
10. Segment Comment (limit	to 200 characters)):	
			ral gas, No. 6 oil, No. 2 oil,
propane, or on-spec. used o		rations. Propa	ne is primarily used for
lighting off the boiler for sta	ert-up.		
		-	
Segment Description and Ra	ate: Segment 4	of <u>7</u>	•
1. Segment Description (Pro-		(limit to 500 cl	haracters):
Unit 2 Firing No. 2 Fuel	Oil		
2. Source Classification Cod	2 (SCC):	3. SCC Unit	
1-01-005-01	e (SCC).	Thousand	
4. Maximum Hourly Rate:	5. Maximum A		6. Estimated Annual Activity
63.603	557,16		Factor: %
7. Maximum % Sulfur: 0.007	8. Maximum %	6 Ash:	9. Million Btu per SCC Unit: 136
10. Segment Comment (limit	,		
			ral gas, No. 6 oil, No. 2 oil,
		perations. No	. 2 oil is primarily used for
during boiler for start-up	р.		

Emissions Unit Information Section	2	of	<u>10</u>	Fossi	il Steam	Unit	t 2
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	(All Emissions Units)
<u>Se</u>	egment Description and Rate: Segment 5 of 7
1.	Segment Description (Process/Fuel Type) (limit to 500 characters):
	Unit 2 Co-Firing On-Specification Used Oil from FPL Operations

2.	Source Classification Cod	e (SCC):	3. SCC Units	 }:	
	1-01-013-01		Thousand	l Gal	lons .
4.	Maximum Hourly Rate: 0.5	5. Maximum 1	Annual Rate: ,500	6.	Estimated Annual Activity Factor:
7.	Maximum % Sulfur: 1	8. Maximum	% Ash:	9.	Million Btu per SCC Unit:

10. Segment Comment (limit to 200 characters):

Maximum % Sulfur given is for co-firing with Natural gas. When firing 100% oil, a max. sulfur content of 0.7% is the current limit. FPL burns only on-specification used oil, per 40 CFR 279.72. The maximum annual limit is based on both Units 1 and 2 (current Title V permit, Condition A.11).

Segment Description and Rate:	Segment	<u>6</u>	of	<u>7</u>
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1.	Segment Description (Process/Fuel Type) (limit to 500 characters):
ı	Unit 2 Co-Firing all possible combinations of Natural Gas, No. 6 Residual Oil, No. 2
	Fuel Oil, On-Spec. Used Oil, and Propane
!	

2.	Source Classification Cod 1-01-006-01	e (SCC):	3. SCC Uni Million Cu	ts: bic Ft. and Thousand Gallons
4.	Maximum Hourly Rate: 3	5. Maximum A 500		6. Estimated Annual Activity Factor: %
7.	Maximum % Sulfur: 1	8. Maximum % 0.1	% Ash:	9. Million Btu per SCC Unit:

10. Segment Comment (limit to 200 characters):

Unit 2 is permitted to burn a mixture of nat. gas, No.6 oil, No.2 oil, propane, or onspec. used oil. Permit allows Unit 1 to burn a mixture of the above fuels provided max. SO2 rate is 0.8 lbs/mmBtu.

Emissions Unit Information Section 2 of 10 Fossil Steam Unit
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Segment Description and R	ate: Segment	<u>7</u> _ of7	
Segment Description (Pro Unit 2 Boiler Chemical (while firing natural gas	Cleaning waste		naracters): nis process may be undertaken
2. Source Classification Cod	le (SCC):	3. SCC Units);
1-01-013-01		Th	ousand Gallons
4. Maximum Hourly Rate: 3	5. Maximum	Annual Rate: 700	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum	% Sulfur:	9. Million Btu per SCC Unit:
10. Segment Comment (limit	to 200 characters	3).	
Items 6 - 9 do not apply.	This activity is guidance, and I	to be undertak EPA waste rule	sen on a periodic basis in s (40 CFR 279.72) and may

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	077		EL
SO2			EL
NOx	025	026	EL
СО			NS
VOC			NS
PM10			NS
H133			NS
SAM			NS
H106			NS
H107			NS
			- A-1
94.84			

Emissions Unit Information Section	<u>2</u>	of	<u>10</u>	Fossil Steam Unit 2
Pollutant Detail Information Page	1	of	3	_

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: PM	2. Total Percent Efficie	ency of Control:
3. Potential Emissions:	1	4. Synthetically
865 lb/hour	3,788.7 tons/year	Limited? [NO]
5. Range of Estimated Fugitive Emissions:		
[]1 []2 []3	to to	ns/year
6. Emission Factor: 0.1 lb/mmBtu		7. Emissions
Reference: 40 CFR 60.42(a)(1)		Method Code: 0
8. Calculation of Emissions (limit to 600 chars 0.1 lb/mmBtu * 8,650 mmBtu/hr = 865 lb (865 lb/hr * 8760 hr/yr) / 2000 lb/ton = 3,	/hr	
9. Pollutant Potential/Fugitive Emissions Com	iment (limit to 200 charac	ters):
Allowable Emissions Allowable Emissions	<u>1</u> of <u>1</u>	
Basis for Allowable Emissions Code: Emission limit required by rule	2. Future Effective Da Emissions:	ate of Allowable
3. Requested Allowable Emissions and Units: 0.2 lb/mmBtu steady state	4. Equivalent Allowal 865 lb/hour 3 ,	ole Emissions: 315.1 tons/year
5. Method of Compliance (limit to 60 characted DEP Rule 62-296.405(1)(e)2	ers):	
6. Allowable Emissions Comment (Desc. of Control of Con		•

Emissions Unit Information Section 2	of 10 Fossil Steam Unit 2
Pollutant Detail Information Page 2 o	f_3
(Regulated En	TANT DETAIL INFORMATION nissions Units - truction Review Pollutants Only)
Potential/Fugitive Emissions	
1. Pollutant Emitted: SO2	2. Total Percent Efficiency of Control:
3. Potential Emissions: 6,920 lb/hour	30,309.6 tons/year 4. Synthetically Limited? [N]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	totons/year
6. Emission Factor: 0.8 lb/mmBtu; Reference: 40 CFR 60.43(a)(1)	7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters) 8,650 mmBtu/hr * 0.8 lb/mmBtu = 6,920 ll (6,920 lb/hr * 8760 hr/yr) / 2000 lb/ton = 3	o/hr
9. Pollutant Potential/Fugitive Emissions Command This emission unit is limited to firing 0.7% limited to firing 1 % sulfur oil while co-firms 1 % sulfur oi	sulfur oil while firing 100% oil and is
Allowable Emissions Allowable Emissions 1	of <u>1</u>
Basis for Allowable Emissions Code: OTHER	Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.8 lb/mmBtu	4. Equivalent Allowable Emissions: 6,920 lb/hour 30,309.6 tons/year
5. Method of Compliance (limit to 60 character Fuel Specifications and vendor sampling a	•

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Equivalent allowable emissions for liquid fuel firing. This unit is subject to 40 CFR

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60.43(a)(1) requirements.

Emissions Unit Information Section	ı <u>2</u>	_ of _	10	Fossil Steam Unit 2
Pollutant Detail Information Page	3	_ of	3	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

_			
1.	Pollutant Emitted: NOx	2. Total Percent Efficie	ency of Control:
3.	Potential Emissions:		4. Synthetically
	2,595 lb/hour	11,366.1 tons/year	Limited? [No]
5.	Range of Estimated Fugitive Emissions:	·	
	[]1 []2 []3	to to:	ns/year
6.	Emission Factor: 0.3 lb/mmBtu		7. Emissions
	Reference: 40 CFR 60.44(a)(2)		Method Code: 0
8.	,	,	
	0.3 lb/mmBtu * 8,650 mmBtu/hr = 2,595 l	• •	
	(2,595 lb/hr * 8760 hr/yr) / 2,000 lb/ton = 1	,	
	0.2 lb/mmBtu * 9,040 mmBtu/hr = 1,808 ll	.0 /	
	(1,808 lb/hr * 8,760 hr/yr) / 2,000 lb/ton =	7,919 tons/year (gas)	
		411	
9.	Pollutant Potential/Fugitive Emissions Comm	•	ters):
	Emission limit calculated for oil and gas co	ombustion.	
All	lowable Emissions Allowable Emissions	of <u>1</u>	
1.	Basis for Allowable Emissions Code:	2. Future Effective Da	ite of Allowable
	OTHER	Emissions:	
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowab	ole Emissions:
	0.3 lb/mmBtu oil	· ·	11,366.1 tons/year
	0.2 lb/mmBtu natural gas	gas 1,808 lb/hour	7,919 tons/year
5.	Method of Compliance (limit to 60 character	/	
	CEM Part 75, arithmetic avg. of 3 consecutive avg.	utive 1-hour periods	
			;
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to	o 200 characters):
	This emission unit utilizes Low NOx burn	<u> </u>	
	to control emissions of NOx. When co-firi	ng oil and gas, the emis	sion limit is based
	on the percentage of heat input by each fu		

Emissions Unit Information Section 2	of <u>10</u> Fossil Steam Unit 2
Pollutant Detail Information Page 3	of <u>3</u>
	SIONS INFORMATION Units Subject to a VE Limitation)
Visible Emissions Limitation: Visible Emis	sions Limitation 1 of 2
1. Visible Emissions Subtype: VE20	Basis for Allowable Opacity: X Rule Other
3. Requested Allowable Opacity: Normal Conditions: Maximum Period of Excess Opacity Allow	exceptional Conditions: 27 % min/hour
4. Method of Compliance: VE Test (EPA Method 9)	
5. Visible Emissions Comment (limit to 200 One 6-minute period per hour of not mo	characters): ore than 27% opacity [40 CFR 60.42(a)(2)].
Visible Emissions Limitation: Visible Emissions	sions Limitation <u>2</u> of <u>2</u>
1. Visible Emissions Subtype: VE99	2. Basis for Allowable Opacity: [X] Rule [] Other
Requested Allowable Opacity: Normal Conditions: 100 % E Maximum Period of Excess Opacity Allow	xceptional Conditions: 100 % red: 60 min/hour
4. Method of Compliance: VE Test (EPA Method 9)	
5. Visible Emissions Comment (limit to 200 FDEP Rule 62-210.700(1) & (2) allows u for excess visible emissions from start-u	p to 100% opacity for 2 hours/24 hour period

Emissions Unit Information Section 2	of 10 Fossil Steam Unit 2
Pollutant Detail Information Page 3	of <u>3</u>
	NITOR INFORMATION Subject to Continuous Monitoring)
Continuous Monitoring System: Continuous	Monitor <u>1</u> of <u>3</u>
1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement:	[X] Rule [] Other
4. Monitor Information Manufacturer: NOx = TECO Model Number: NOx = 42 Serial Number: NOx = 42-45961-275K	CO_2 = Milton Roy CO_2 = 3300 CO_2 = N3K8184T
5. Installation Date: 01/31/1994	6. Performance Specification Test Date: 12/09/94
7. Continuous Monitor Comment (limit to 200 NOx required by 40 CFR 75.10(a)(2); CC per 40 CFR 75 Appendix E. CO ₂ data is equation G-4.	O ₂ provides % O ₂ data to NOx monitor
Continuous Monitoring System: Continuous	Monitor <u>2</u> of <u>3</u>
1. Parameter Code: EM	2. Pollutant(s): SO ₂
3. CMS Requirement:	[X] Rule [] Other
4. Monitor Information Manufacturer: SO ₂ = TECO Model Number: SO ₂ = 43B Serial Number: SO ₂ = 43B-46556-276	
5. Installation Date: 01/31/1994	6. Performance Specification Test Date: 12/09/94
7. Continuous Monitor Comment (limit to 200 SO ₂ Required by 40 CFR 75.10(a)(1); SO appendix D	,

Emissions Unit Information Section		_ of	10	_ Fossil Steam Unit 2
Pollutant Detail Information Page	3	_ of _	3	

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

Continuous Monitoring System: Continuous Monitor 3 of 3

1. Parameter Code: EM	2. Pollutant(s): Visible Emissions
3. CMS Requirement:	[X] Rule [] Other
4. Monitor Information Manufacturer: Lear Sigler Model Number: RM 41 Serial Number: 924/966	
5. Installation Date: 03/01/1978	6. Performance Specification Test Date: 01/05/1995
7. Continuous Monitor Comment (limit to Two serial numbers are provided be transmissometer.	o 200 characters): cause each duct leading to the stack has its own

Emissions Unit Information Section	2	_ of _	10	_ Fossil Steam Unit 2
Pollutant Detail Information Page	3	_ of _	3	

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

Supplemental Requirements

1.	Process Flow Diagram
	[X] Attached, Document ID: PMRU2-1.ipg [] Not Applicable [] Waiver Requested
2.	Fuel Analysis or Specification
	[X] Attached, Document ID: PMRU1-2.txt [] Not Applicable [] Waiver Requested
3.	Detailed Description of Control Equipment
	[X] Attached, Document ID: PMRU1-3.txt [] Not Applicable [] Waiver Requested
4.	Description of Stack Sampling Facilities
	[X] Attached, Document ID: PMRU1-4.jpg [] Not Applicable [] Waiver Requested
5.	Compliance Test Report
	[] Attached, Document ID:
	[] Previously submitted, Date:
	[X] Not Applicable
6.	Procedures for Startup and Shutdown
	[X] Attached, Document ID PMRU1-6.txt [] Not Applicable [] Waiver Requested
7.	Operation and Maintenance Plan
	[] Attached, Document ID: [X] Not Applicable [] Waiver Requested
8.	Supplemental Information for Construction Permit Application
	[] Attached, Document ID: [X] Not Applicable
9.	Other Information Required by Rule or Statute
	[] Attached, Document ID: [X] Not Applicable
10	. Supplemental Requirements Comment:
L	

Emissions Unit Information Section 2 of 10 Fossil Steam Unit 2
Pollutant Detail Information Page 3 of 3
Additional Supplemental Requirements for Title V Air Operation Permit Applications
11. Alternative Methods of Operation
[X] Attached, Document ID: PMRU1-11.txt [] Not Applicable
12. Alternative Modes of Operation (Emissions Trading)
[] Attached, Document ID: [X] Not Applicable
13. Identification of Additional Applicable Requirements
[X] Attached, Document ID: PMRU1-13.txt [] Not Applicable
14. Compliance Assurance Monitoring Plan [] Attached, Document ID: [X] Not Applicable
(Refer to Attachment PMRCAM)
15. Acid Rain Part Application (Hard-copy Required)
[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: PMRU1-15
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:
[] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:
[] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:
[] Not Applicable

Emissions Unit Information Section	3	of	<u>10</u>	Comb. Turbine w/HRSG ((CT	32	A)
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III. EMISSIONS UNIT INFORMATION

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

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

	Emissions out Description and Status						
1.	Type of Emission	ns Unit Addressed in This	s Section: (Check one)				
[}	[X] 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.						
[on addresses, as a single emisses which produce fugitive em				
2.	Regulated or Unr	regulated Emissions Unit	? (Check one)				
[X	[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.						
{	emissions unit.						
3.	3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Combustion Turbine with Heat Recovery Steam Generator (HRSG) CT 3A						
4.	4. Emissions Unit Identification Number: [] No ID [] ID Unknown						
5.	Emissions Unit Status Code:	6. Initial Startup Date: 02/16/94	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? [Y]			
9.	(
	Each combined cycle unit consists of two combustion turbines with each unit firing into						
	a Heat Recovery Steam Generator (HRSG). Each combustion turbine is connected to						
	an electrical generator. Waste heat recovered in the HRSG's is sent to a steam turbine- generator for production of additional electric power. Generator nameplate rating is						
	given for the CT-coupled generator only.						
				,			

Emissions Unit Information Section	3	of <u>10</u>	Comb. Turbine w/HRSG (CT 3A)
Emissions Unit Control Equipment			
1. Control Equipment/Method Descri	ption (Li	mit to 200	characters per device or method):
Dry Low- NO_X Combustors for N distillate oil combustion.	latural G	as combu	stion and steam injection for
2. Control Device or Method Code(s)	: 025		
Emissions Unit Details			
1. Package Unit:			
Manufacturer: GE	Model	Number: 1	MS7001FA
2. Generator Nameplate Rating:	204	MW	
3. Incinerator Information:			
Dwell Tempera			°F
Dwell T			seconds
Incinerator Afterburner Tempera	ture.		°F

Emissions Unit Information Section	3	of	10	Comb. Turbine w/HRSG (CT 3A

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

Emissions Unit Operating Capacity and Schedule

1.	Maximum Heat Input Rate:	1,966	mmBtu/hr		
2.	Maximum Incineration Rate:		lb/hr		tons/day
3.	Maximum Process or Throughp	ut Rate:	- 1		
4.	Maximum Production Rate:	· <u> </u>	•		
5.	Requested Maximum Operating	Schedule:			
		hours/day			days/week
		weeks/yea	r	8,760	hours/year
	Maximum Heat Input (HI) Ra 40 deg. F. Max.; HI for dist. O sampling and analysis. Opera calendar year.	il = 1,846 n	ımBtu. Compli	iance metl	hod for HI is fuel

	Emissions	Unit Information	Section	3	of	10	Comb. Turbine w/HRSG (CT 3	A
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List of Applicable Federal Regulations

40 CFR 72.9 (a) Acid Rain Permits	Permit requirements
40 CFR 72.9 (b), Acid Rain Permits	Monitoring Requirements
40 CFR 72.9 (c)(1), Acid Rain Permits	SO2 Allowance Requirements - Holding
40 CFR 72.9 (c)(2), Acid Rain Permits	SO2 Allowance - Excess Emissions Violations
40 CFR 72.9 (c)(3)(iii), Acid Rain Permits	SO2 Allowance - Phase II Unit applicability
40 CFR 72.9 (c)(4), Acid Rain Permits	SO2 Allowance Tracking System Accounts
40 CFR 72.9 (c)(5), Acid Rain Permits	SO2 Allowance Year of Use Requirement
40 CFR 72.9 (d), Acid Rain Permits	NOx Requirements
40 CFR 72.9 (e), Acid Rain Permits	Excess Emission Requirements & Offsets
40 CFR 72.9 (f), Acid Rain Permits	Recordkeeping and Reporting
40 CFR 72.9 (g), Acid Rain Permits	Liability and Civil Penalty
40 CFR 72.20 (a), Acid Rain Permits	Designated Representative Requirement
40 CFR 72.20 (b), Acid Rain Permits	Designated Representative Legal Binding
40 CFR 72.20 (c), Acid Rain Permits	Designated Representative Certification
40 CFR 72.21, Acid Rain Permits	Submissions by Designated Representative
40 CFR 72.22, Acid Rain Permits	Alternate Designated Representative Requirement
40 CFR 72.23, Acid Rain Permits	Changing Designated Representatives or Owners
40 CFR 72.24, Acid Rain Permits	Designated Representative Certificate of Representation
40 CFR 72.30 (a), Acid Rain Permits	Acid Rain Permit Duty to Apply

Emissions Unit Information Section 3 of 10 Comb. Turbine w/HRSG (CT 3	[3A]	C'	IRSG (Comb. Turbine w/H.) (10	of	3	Information Section	Info	Unit	sions	Emis
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List of Applicable Federal Regulations

40 CFR 72.30 (b) (2), Acid Rain Permits	Acid Rain Permit Requirements to apply for Phase II
40 CFR 72.30 (c), Acid Rain Permits	Acid Rain Permit Renewal application prior to Permit Expiration
40 CFR 72.30 (d), Acid Rain Permits	Acid Rain Permit Submittal Requirements
40 CFR 72.31, Acid Rain Permits	Acid Rain Permit Information Requirements
40 CFR 72.32, Acid Rain Permits	Permit Application Shield
40 CFR 72.33 (b), Acid Rain Permits	Identification of Dispatch System
40 CFR 72.33 (c), Acid Rain Permits	Dispatch System Requirements
40 CFR 72.33 (d), Acid Rain Permits	Changing Dispatch System Identification
40 CFR 72.40, Acid Rain Permits	Compliance Plan Application Requirements
40 CFR 72.50, Acid Rain Permits	General Permit Requirements
40 CFR 72.51, Acid Rain Permits	Permit Shield
40 CFR 72.90, Acid Rain Permits	Annual Compliance Certification
40 CFR 73.30, SO2 Allowance System	Allowance Tracking System Accounts
40 CFR 73.31, SO2 Allowance System	Establishment of Accounts
40 CFR 73.32, SO2 Allowance System	Allowance Account Contents
40 CFR 73.33, SO2 Allowance System	Authorized Account Representative
40 CFR 73.35 (a), SO2 Allowance System	Compliance and Allowance Transfer Deadline
40 CFR 73.35 (b), SO2 Allowance System	Allowance Deductions for Compliance
40 CFR 73.35 (c), SO2 Allowance System	Identification of Allowances by Serial Number

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Emissions Unit Information Section	3	of	10	Comb. Turbine w/HRSG	(CT 3A)
Cimpotono Chit Intol Ination Section		O.I	10	Comb. 1 di bine 17/11100	$(oldsymbol{ } oldsymbol{ $

40 CFR 73.35 (d), SO2 Allowance System	Deductions for Excess Emissions
40 CFR 75.4, CEMS	Compliance Dates
40 CFR 75.5, CEMS	Prohibitions
40 CFR 75.10 (a) (1), CEMS	Primary Measurement - SO2
40 CFR 75.10 (a) (2), CEMS	Primary Measurement - NOx
40 CFR 75.10 (a) (3) (i), CEMS	Primary Measurement - CO2 & O2 Monitor
40 CFR 75.10 (b), CEMS	Primary Equipment Performance Requirements
40 CFR 75.10 (c), CEMS	Heat Input Measurement Requirement
40 CFR 75.10 (f), CEMS	Minimum Measurement Capability
40 CFR 75.10 (g), CEMS	
40 CFR 75.11 (d), CEMS	SO2 Emission Monitoring Requirements for Gas-Fired Units
40 CFR 75.11 (e), CEMS	SO2 Emissions Monitoring Gas-Fired Units
40 CFR 75.12 (a), CEMS	NOx Monitoring
40 CFR 75.12 (b), CEMS	NOx Monitoring Moisture Correction
40 CFR 75.12 (c), CEMS	NOx Monitoring Determination of NOx Emission Rate - Appendix F
40 CFR 75.13 (b), CEMS	CO2 Emissions Monitoring Appendix G
40 CFR 75.13 (c), CEMS	CO2 Mass Emissions Monitoring Appendix F
40 CFR 75.14 (c), CEMS	Opacity Monitoring Gas Unit Exemption
40 CFR 75.20 (a), CEMS	Initial Certification & Loss of Certification

Emissions Unit Information Section	3	of	10	Comb. Turbine w/HRSG (CT 3A	.)
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List of Applicable Federal Regulations

40 CFR 75.20 (b), CEMS	Recertification Approval Process
40 CFR 75.20 (c), CEMS	Certification Procedures
40 CFR 75.20 (d), CEMS	Certification and QA/QC for Backup Monitors
40 CFR 75.20 (f), CEMS	Certification of Alternative Monitoring Systems
40 CFR 75.21 (a), CEMS	CEMS QA/QC
40 CFR 75.21 (c), CEMS	Calibration Gasses for CEMS QA/QC
40 CFR 75.21 (d), CEMS	QA/QC RATA Periodic Notification
40 CFR 75.21 (e), CEMS	QA/QC Audit Consequences
40 CFR 75.22 , CEMS	Reference Test Methods
40 CFR 75.24 , CEMS	Out of Control Periods and Bias Adjustment
40 CFR 75.30 (a)(3), CEMS	NOx Missing Data Substitution Procedures
40 CFR 75.30 (a)(4), CEMS	SO2 Missing Data Substitution Procedures
40 CFR 75.30 (b), CEMS	Missing Data Substitution Procedures for Backup Monitors
40 CFR 75.30 (c), CEMS	Missing Data Substitution using Backup Monitors
40 CFR 75.30 (d), CEMS	SO2 Missing Data Substitution - Gas Units
40 CFR 75.31 , CEMS	Initial Missing Data Procedures
40 CFR 75.32 , CEMS	Monitoring Data Availability for Missing Data
40 CFR 75.33 , CEMS	Standard Missing Data Procedures
40 CFR 75.36, CEMS	Missing Data for Heat Input

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40 CFR 75.40 , CEMS	Alternate Monitoring Systems General Demonstration Requirements
40 CFR 75.41 , CEMS	Alternate Monitoring Systems Precision Criteria
40 CFR 75.42 , CEMS	Alternate Monitoring Systems Reliability Criteria
40 CFR 75.43 , CEMS	Alternate Monitoring Systems Accessibility Criteria
40 CFR 75.44 , CEMS	Alternate Monitoring Systems Timeliness Criteria
40 CFR 75.45 , CEMS	Alternate Monitoring Systems Daily QA
40 CFR 75.46 , CEMS	Alternate Monitoring Systems Missing Data Substitution Criteria
40 CFR 75.47 , CEMS	Alternate Monitoring Systems Criteria For a Class of Affected Unit
40 CFR 75.48 , CEMS	Petition for Alternate Monitoring Systems
40 CFR 75.53 , CEMS	Monitoring Plan
40 CFR 75.54 , CEMS	General Recordkeeping Provisions
40 CFR 75.55 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.55 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.56 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.57 , CEMS	General Recordkeeping Provisions
40 CFR 75.58 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.58 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.59 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.60 , CEMS	General Reporting Requirements

40 CFR 75.61 , CEMS	Reporting Requirements Notifications
40 CFR 75.62 , CEMS	Monitoring Plan Reporting Requirements
40 CFR 75.63 , CEMS	Certification Reporting Requirements
40 CFR 75.64 (a), CEMS	Quarterly Reports Submission
40 CFR 75.64 (b), CEMS	Quarterly Reports Designated Representative Statement
40 CFR 75.64 (c), CEMS	Quarterly Reports Compliance Certification
40 CFR 75.64 (d), CEMS	Quarterly Reports Electronic Submittal
40 CFR 75.65 , CEMS	
40 CFR 75.66, CEMS	Petitions to the Administrator (if required)
40 CFR Part 75 - Appendix A-1	Installation and Measurement Locations
40 CFR Part 75 - Appendix A-2	Equipment Specifications
40 CFR Part 75 - Appendix A-3	Performance Specifications
40 CFR Part 75 - Appendix A-4	Data Handling and Acquisition Systems
40 CFR Part 75 - Appendix A-5	Calibration Gasses
40 CFR Part 75 - Appendix A-6	Certification Tests and Procedures
40 CFR Part 75 - Appendix A-7	Calculations
40 CFR Part 75 - Appendix B	QA/QC Procedures
40 CFR Part 75 - Appendix C-1	Missing Data; SO2 & NOx for Controlled sources
40 CFR Part 75 - Appendix C-2	Missing Data ; Load Based Procedure; NOx & Flow

C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

40 CFR Part 75 - Appendix D	Optional SO2 Emissions Protocol for Gas Fired Units
40 CFR Part 75 - Appendix F	Conversion Procedures
40 CFR Part 75 - Appendix G-2	Conversion Procedures
40 CFR Part 75 - Appendix G-4	Conversion Procedures
40 CFR Part 75 - Appendix H	Conversion Procedures
40 CFR 77.3, Excess Emissions	Future SO2 Offset Plans
40 CFR 77.5 (b), Excess Emissions	Future Deduction of SO2 Allowances for Excess SO2 Emissions
40 CFR 77.6, Excess Emissions	Future Penalties for Excess Emissions of SO2 and NOx
40 CFR 60.332(a)(1) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.332(b) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.332(f) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.332(k), Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.333(b) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.333(k) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.334(a) , Subpart GG	Monitoring of water injection during firing of oil
40 CFR 60.334(b)(1) , Subpart GG	Monitoring of operation during firing of oil, oil specifications
40 CFR 60.334(b)(2) , Subpart GG	Monitoring of operation during firing of natural gas, gas specifications
40 CFR 60.334(c)(1), Subpart GG	Monitoring of NOx emissions at load conditions during operation
40 CFR 60.335, Subpart GG	Custom Fuel Monitoring Schedule for Natural Gas

C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

List of Applicable State Regulations

FAC 62-204.800(12) (State Only)	Acid Rain Program
FAC 62-204.800(13) (State Only)	Allowances
FAC 62-204.800(14) (State Only)	Acid Rain Program Monitoring
FAC 62-204.800(16) (State Only)	Excess Emissions
FAC 62-210.650, Stationary Sources	Circumvention; EU's with control device
FAC 62-210.700 (1), Stationary Sources	Excess Emissions
FAC 62-210.700 (4), Stationary Sources	Excess Emissions & Poor Maintenance
FAC 62-210.700 (6), Stationary Sources	Excess Emissions Notification
FAC 62-210.300 , Acid Rain	Acid Rain Unit Applicability
FAC 62-210.320 (1)(a),(2), Acid Rain	Acid Rain Unit Application Shield
FAC 62-210.330 (1)(a)1., Acid Rain	Acid Rain Unit Compliance Options
FAC 62-210.340 , Acid Rain	New and Retired Unit Exemptions
FAC 62-210.350(2);(3);(6), Acid Rain	Acid Rain Unit Certification
FAC 62-210.370 , Acid Rain	Acid Rain Unit Revisions & Corrections
FAC 62-210.430 , Acid Rain	Compliance Options for Acid Rain Units
FAC 62-296.320(4)(b),Stationary Units	CT & Diesel Unit (State Only)
FAC 62-297.310(1), Emiss. Monitoring	Test Runs - Mass Emissions
FAC 62-297.310(2)(b), Emiss. Monitoring	Operating Rate
FAC 62-297.310(3), Emiss. Monitoring	Calculation of Emissions
FAC 62-297.310(8), Emiss. Monitoring	Test Reports

C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

List of Applicable State Regulations

FAC 62-297.310(4)(a), Emiss. Monitoring	Applicable Test Procedures , Sampling Time
FAC 62-297.310(4)(b), Emiss. Monitoring	Sample Volume
FAC 62-297.310(4)(c), Emiss. Monitoring	Required Low Rate Range-PM, H2SO4,F
FAC 62-297.310(4)(d), Emiss. Monitoring	Calibration
FAC 62-297.310(4)(e), Emiss. Monitoring	EPA Method 5 (applicable when combusting oil)
FAC 62-297.310(5), Emiss. Monitoring	Determination of Process Variables
FAC 62-297.310(6)(a), Emiss. Monitoring	Permanent Testing Facilities
FAC 62-297.310(6)(c), Emiss. Monitoring	Sampling Ports
FAC 62-297.310(6)(d), Emiss. Monitoring	Work Platforms
FAC 62-297.310(6)(e), Emiss. Monitoring	Access
FAC 62-297.310(6)(f), Emiss. Monitoring	Electrical Power Provisions
FAC 62-297.310(6)(g), Emiss. Monitoring	Equipment Support
FAC 62-297.310(7)(a)3, Emiss. Monitoring	Permit Renewal Test Requirement
FAC 62-297.310(7)(a)4b,Emiss. Monitoring	Annual Test Requirement
FAC 62-297.310(7)(a)5, Emiss. Monitoring	Exemption from PM Test if operation is less than 400 hrs on oil/distillate
FAC 62-297.310(7)(a)9, Emiss. Monitoring	FDEP Notification 15 days prior to tests
FAC 62-297.310(7)(c), Emiss. Monitoring	Waiver for Compliance Tests for Fuel Sampling

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

Emission Point Description and Type

Identification of Point on P Flow Diagram? See Figure	2. Emission Po	oint Type Code: 1					
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):							
Unit exhaust through single stack							
4. ID Numbers or Description	s of Emission Ui	nits with this Emi	ssion Point in Comm	on:			
5. Discharge Type Code: V	6. Stack Heig	ht: 213.3 feet	7. Exit Diameter: 20	feet			
8. Exit Temperature: 280 °F		umetric Flow 420,307 acfm	10. Water Vapor:	%			
11. Maximum Dry Standard Flow Rate: dscfm 12. Nonstack Emission Point Height: feet							
13. Emission Point UTM Coord	linates:						
Zone: 17 E	ast (km): 5432	Nortl	h (km): 299261				
14. Emission Point Comment (l	imit to 200 char	acters):					
The Volumetric Flow Rate condition while firing oil. The 2,352,904 acfm. The VFR wh	VFR while firi	ng nat. gas unde	r the same condition	n is			

Emissions Unit Information	Section <u>3</u>	of <u>10</u> C	omb. Turbine w/HRSG (CT 3A
E. SEG	MENT (PROCES (All Emis	SS/FUEL) INF ssions Units)	FORMATION
Segment Description and R	ate: Segment1	of <u>3</u>	
Segment Description (Pro Pipeline Natural Gas bu		•	aracters):
2. Source Classification Code	e (SCC)·	3. SCC Units	2*
2-01-002-01	c (BCC).	Million C	
4. Maximum Hourly Rate: 1.87	5. Maximum A 16,381.2	Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.0031	8. Maximum %		9. Million Btu per SCC Unit: 1,050
%S = [10gr of S/1000 CF ga	rs] * [1 lb S/7000	gr] [CF gas/0.0	046 lb gas]*100 = 0.0031%S
Segment Description and Ra	ate: Segment2	of <u>3</u>	
Segment Description (Pro Light Distillate Oil burn			naracters):
2. Source Classification Cod	le (SCC):	3. SCC Unit	s:
2-01-001-01		Thousand	l Gallons
4. Maximum Hourly Rate: 14.13	5. Maximum A 28,260	Annual Rate:	6. Estimated Annual Activity Factor: %
7. Maximum % Sulfur:	8. Maximum %	% Ash:	9. Million Btu per SCC Unit:

Max. annual rate is for 2,000 hrs of operation on Dist. Oil, which is limited in the PSD permit (4.a) and the Site Certification for the 4 CTs of Units 3 & 4.

10. Segment Comment (limit to 200 characters):

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant
22.4	Device Code	Device Code	Regulatory Code
PM			EL
SO2			EL
NOx	025	028	EL
CO			EL
VOC			EL
PM10			NS
SAM			. NS
H114			NS
FL			NS
H021			NS

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Emissions Unit Information Section	3_	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 3A)
Pollutant Detail Information Page	1	of	10	

Emissions-Limited and Preconstruction Review Pollutants Only)

D 4	4. 11/			T .	-
Poten	tial/	P HO	HIVE	H ma	2 mais
LOCCII			11110		3310113

Totalitin A Marit C Elitiosions	
1. Pollutant Emitted: PM10	2. Total Percent Efficiency of Control:
3. Potential Emissions:	4. Synthetically
60.6 lb/hour	100 tons/year Limited? [Yes]
5. Range of Estimated Fugitive Emissions:	
	totons/year
6. Emission Factor: 60.6 lb/hr	7. Emissions
Reference: see comment below	Method Code:
The hourly rate is for oil firing. The hour	ment (limit to 200 characters): e the same emission limit for PM and PM10,
are synth. limited based on PSD-FL-146. Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>
1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 18 lb/hour	4. Equivalent Allowable Emissions: 18 lb/hour 78.8 tons/year
5. Method of Compliance (limit to 60 character Not required for Natural Gas firing	rs):
6. Allowable Emissions Comment (Desc. Of O The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove for lb/hr emission rate is reflective of

	of <u>10</u> Comb. Turbine w/HRSG (CT 3A)
Allowable Emissions	<u>2</u> of <u>3</u>
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 60.6 lb/hour	4. Equivalent Allowable Emissions: 60.6 lb/hour 60.6 tons/year
5. Method of Compliance (limit to 60 character DEP Rule 62-296.405(1)(e)2 only for firing	,
6. Allowable Emissions Comment (Desc. of O The information given in fields 3 and 4 ab dist. oil operation. The four CT's of Units of 2,000 hours per year for dist. oil firing.	oove for lb/hr emission rate is reflective of s 3 & 4 are restricted to an aggregate limit
Allowable Emissions Allowable Emissions	3 of 3 2. Future Effective Date of Allowable
OTHER	Emissions:
3. Requested Allowable Emissions and Units: 100 tons/year	4. Equivalent Allowable Emissions: 100 tons/year
5. Method of Compliance (limit to 60 character	rs):

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

The information given in fields 3 and 4 above represents the annual tpy limit for PM-

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10 from all 4 CTs of Units 3 & 4.

Emissions Unit Information Section	<u>3</u>	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 3A)
Pollutant Detail Information Page	2	of	10	

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T. 4		¬ •.•	Emissions
Poton	tial/1	OVERBOARS	l miccione
I VICII	uava	uzinic	ELIHOSIUHS

	Pollutant Emitted: PM	2. Total Percent Effic	iency of Control:
3.	Potential Emissions: 60.6 lb/hour	100 tons/year	4. Synthetically Limited? [Yes]
5.	Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	tot	ons/year
6.	Emission Factor: 60.6 lb/mmBtu Reference: see comment below		7. Emissions Method Code: 0
8.	Calculation of Emissions (limit to 600 chara NA - limited by permit	cters):	
9.	Pollutant Potential/Fugitive Emissions Comm The PSD permit and Site Certification use		cters):
	10, The hourly rate is for oil firing. The ho Emissions are synth. limited based on PSI	ourly rate for Nat. Gas	
<u>Al</u>	10, The hourly rate is for oil firing. The ho	ourly rate for Nat. Gas D-FL-146.	
	10, The hourly rate is for oil firing. The ho Emissions are synth. limited based on PSI	ourly rate for Nat. Gas D-FL-146.	s is 18 lb/hr.
1.	10, The hourly rate is for oil firing. The home Emissions are synth. limited based on PSI lowable Emissions Allowable Emissions	Ourly rate for Nat. Gas D-FL-146. 1 of 3 2. Future Effective D	Date of Allowable able Emissions:
3.	10, The hourly rate is for oil firing. The home Emissions are synth. limited based on PSI lowable Emissions Allowable Emissions Basis for Allowable Emissions Code: OTHER Requested Allowable Emissions and Units:	ourly rate for Nat. Gas D-FL-146. 1 of 3 2. Future Effective D Emissions: 4. Equivalent Allowa 18 lb/hour 78.3	Date of Allowable able Emissions:

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Allowable Emissions Allowable Emissions	2 of <u>3</u>
1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 60.6 lb/hour	4. Equivalent Allowable Emissions: 60.6 lb/hour 60.6 tons/year
5. Method of Compliance (limit to 60 character DEP Rule 62-296.405(1)(e)2 only for firing	
Allowable Emissions Comment (Desc. of Open Comment)	perating Method) (limit to 200 characters):
The information given in fields 3 and 4 abdist. oil operation. The four CTs of Units 2,000 hours per year for dist. oil firing.	ove for lb/hr emission rate is reflective of 3 & 4 are restricted to an aggregate limit o
The information given in fields 3 and 4 ab dist. oil operation. The four CTs of Units	ove for lb/hr emission rate is reflective of 3 & 4 are restricted to an aggregate limit o
The information given in fields 3 and 4 ab dist. oil operation. The four CTs of Units 2,000 hours per year for dist. oil firing. Allowable Emissions Allowable Emissions	ove for lb/hr emission rate is reflective of 3 & 4 are restricted to an aggregate limit of 3 of 3 of 3. 2. Future Effective Date of Allowable

Emissions Unit Information Section	3	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 3A)
Pollutant Detail Information Page	3_	_ of _	10	

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions		
1. Pollutant Emitted: SO2	2. Total Percent Effic	iency of Control:
3. Potential Emissions: 920 lb/hour	568 tons/year	4. Synthetically Limited? [Yes
5. Range of Estimated Fugitive Emissions:	to to	ons/year
6. Emission Factor: 0.5 % Sulfur in Fuel Reference: see comment		7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 chara Not Applicable – Permit limit on % Sulfu		
Pollutant Potential/Fugitive Emissions Communications Sulfur content of distillate oil is limited to PSD permit. Oil firing in CTs of Units 3 & 2,000 hours per year for dist. oil firing.	0.5% max. and 0.3%	annual average by t
Allowable Emissions Allowable Emissions	1 of 2	
1111		
	2. Future Effective D	ate of Allowable
1. Basis for Allowable Emissions Code: OTHER	Future Effective D Emissions: Equivalent Alloware	
3. Requested Allowable Emissions and Units:	Future Effective D Emissions: 4. Equivalent Allowa 920 lb/hour s):	ble Emissions: 568 tons/year

		f <u>1</u>	<u> </u>
ΑI	lowable Emissions Allowable Emissions	<u>. </u>	of <u>3</u>
	Basis for Allowable Emissions Code: OTHER	1	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 91.5 lb/hour	1	Equivalent Allowable Emissions: 91.5 lb/hour 400.77 tons/year
5.	Method of Compliance (limit to 60 character ASTM Methods D 1072-80, D 3031-87, D-	-	82, or D3246-81 (or equivalent)
6			
6,	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	oerati	ng Method) (limit to 200 characters):
6. All	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab	ove f	ng Method) (limit to 200 characters): or lb/hr emission rate is reflective of
<u> </u>	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove forctor.	ng Method) (limit to 200 characters): or lb/hr emission rate is reflective of
Al l	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab natural gas operation at 100% capacity fallowable Emissions Allowable Emissions Basis for Allowable Emissions Code:	oeration ove for ctor.	ng Method) (limit to 200 characters): or lb/hr emission rate is reflective of of3 Future Effective Date of Allowable

from 4 combustion turbines.

Emissions Unit Information Section	3_	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 3A)
Pollutant Detail Information Page	4	of	10	

Emissions-Limited and Preconstruction Review Pollutants Only)

Poten	tial/F	ugitive	Emissions

Poten	tial/Fugitive Emissions		
1. Po	llutant Emitted: NO _X	2. Total Percent Efficient	ency of Control:
	tential Emissions: 461 lb/hour	3,108 tons/year	4. Synthetically Limited? [Yes]
5. Ra	inge of Estimated Fugitive Emissions:	to to	ns/year
6. En	nission Factor: 461 lb/hr		7. Emissions
	Reference: Permit derived		Method Code: 5
9. Po	llculation of Emissions (limit to 600 chara ot Applicable - Limited by PSD Permit. Ilutant Potential/Fugitive Emissions Com tential emission rates are based on oil f	ment (limit to 200 charac	ters):
rat an	te firing natural gas is 177 lb/hr at 40 d ibient temperatures may vary from the	egrees F. Note that emis se values.	
Allow	able Emissions Allowable Emissions	<u>1</u> of <u>3</u>	
1. Ba	sis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ite of Allowable
3. Re	quested Allowable Emissions and Units: 461 lbs/hr	4. Equivalent Allowat 461 lb/hour 3	ole Emissions: 3,108 tons/year
1	ethod of Compliance (limit to 60 characted inual stack testing using EPA Method 2		7E
En	lowable Emissions Comment (Desc. of Onissions based on distillate oil operation sed to an aggregate limit of 2,000 hours	The emissions of this p	pollutant are limited

	of <u>10</u> Comb. Turbine w/HRSG (CT 3A)
Pollutant Detail Information Page 4 0	f <u>10</u>
Allowable Emissions Allowable Emissions	<u>2</u> of <u>3</u>
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 177 lb/hour	4. Equivalent Allowable Emissions: 177 lb/hour 775.26 tons/year
5. Method of Compliance (limit to 60 character Annual stack testing using EPA Method 2	·
6. Allowable Emissions Comment (Desc. of Ol The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove for lb/hr emission rate is reflective of
Allowable Emissions Allowable Emissions	<u>3</u> of <u>3</u>
Allowable Emissions Allowable Emissions	2. Future Effective Date of Allowable Emissions:
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
Basis for Allowable Emissions Code: Emissions limit required by rule Requested Allowable Emissions and Units:	Future Effective Date of Allowable Emissions: 4. Equivalent Allowable Emissions: lbs/hr 3018 tons/year

Emissions Unit Information Section	<u>3</u> _	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 3A
Pollutant Detail Information Page	5	of	10	

Emissions-Limited and Preconstruction Review Pollutants Only)

Po	tential/Fugitive Emissions			
1.	Pollutant Emitted: VOCs	2. Tota	l Percent Effic	iency of Control:
3.	Potential Emissions: 11 lb/hour	57	tons/year	4. Synthetically Limited? [Yes]
5.	Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3		to to	ons/year
6.	Emission Factor: 11 lb/hr			7. Emissions
	Reference: Permit derived			Method Code: 5
8.	Calculation of Emissions (limit to 600 chara Not Applicable - Limited by PSD Permit.			
9.	Pollutant Potential/Fugitive Emissions Com Potential emission rates are based on oil f rate firing natural gas is 3 lb/hr at 40 deg temperatures may vary from these values	firing (wo rees F. N	rst case). The	allowable emission
Al	lowable Emissions Allowable Emissions	<u>1</u> of	<u>3</u>	
1.	Basis for Allowable Emissions Code: OTHER	1	ure Effective Dissions:	ate of Allowable
3.	Requested Allowable Emissions and Units: 11 lbs/hr	1		ıble Emissions: 1 tons/year
5.	Method of Compliance (limit to 60 characte Annual stack testing using EPA Method 1		lified Method	25A
6.	Allowable Emissions Comment (Desc. of O Emissions based on distillate oil operation based to an aggregate limit of 2,000 hours	ı. The em	issions of this	pollutant are limited

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Allowable Emissions Allowable Emissio	ons <u>2</u> of <u>3</u>
1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
 Requested Allowable Emissions and U 3 lb/hour 	Jnits: 4. Equivalent Allowable Emissions: 3 lb/hour 13.14 tons/year
5. Method of Compliance (limit to 60 cha Annual stack testing using EPA Met	,
	of Operating Mathed) (limit to 200 -1
5. Allowable Emissions Comment (Desc. The information given in fields 3 and natural gas operation at 100% capac	
6. Allowable Emissions Comment (Desc. The information given in fields 3 and natural gas operation at 100% capac	d 4 above for lb/hr emission rate is reflective of city factor. ns 3 of 3
6. Allowable Emissions Comment (Desc. The information given in fields 3 and natural gas operation at 100% capacation at 100% capacation. Allowable Emissions Allowable Emission. 1. Basis for Allowable Emissions Code:	ns 3 of 3 2. Future Effective Date of Allowable
6. Allowable Emissions Comment (Desc. The information given in fields 3 and natural gas operation at 100% capac	ns 3 of 3 2. Future Effective Date of Allowable Emissions:

Emissions Unit Information Section	 3	of	<u> 10</u>	Comb. Turbine w/HRSG (CT 3A)
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Emissions-Limited and Preconstruction Review Pollutants Only)

D - 4 4 2 -	1/17 242-	17
PATANTIA	I/HRIGHTIV	onniggian a
I Ottlitia	DI UZILI	ve Emissions

r otentian r ugitive Elmissions	
1. Pollutant Emitted: CO	2. Total Percent Efficiency of Control:
3. Potential Emissions: 105.8 lb/hour	4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	totons/year
6. Emission Factor: 105.8 lb/hr Reference: Permit derived	7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 char. Not Applicable - Limited by PSD Permit.	·
9. Pollutant Potential/Fugitive Emissions Com Potential emission rates are based on oil trate firing natural gas is 94.3 lb/hr at 40 ambient temperatures may vary from the	firing (worst case). The allowable emission degrees F. Note that emissions at other
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 105.8 lbs/hr	4. Equivalent Allowable Emissions: 105.8 lb/hour 105.8 tons/year
5. Method of Compliance (limit to 60 characte Annual stack testing using EPA Method	· ·
6. Allowable Emissions Comment (Desc. of C Emissions based on distillate oil operation based to an aggregate limit of 2,000 hours	n. The emissions of this pollutant are limited

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All	owable Emissions Allowable Emissions	<u>2</u> of <u>3</u>
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 94.3 lb/hour	4. Equivalent Allowable Emissions: 94.3 lb/hour 413.034 tons/year
5.	Method of Compliance (limit to 60 character Annual stack testing using EPA Method 1	,
- •	The information given in fields 2 and 4 al	perating Method) (limit to 200 characters):
	The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove for lb/hr emission rate is reflective of ctor.
<u>A11</u>	natural gas operation at 100% capacity fa owable Emissions Allowable Emissions	ove for lb/hr emission rate is reflective of ctor. 3 of3
<u>A11</u>	natural gas operation at 100% capacity fa owable Emissions Allowable Emissions Basis for Allowable Emissions Code:	ove for lb/hr emission rate is reflective of ctor.
All	natural gas operation at 100% capacity fa owable Emissions Allowable Emissions	ove for lb/hr emission rate is reflective of ctor. 3 of 3 2. Future Effective Date of Allowable

Emissions Unit Information Section	<u>3</u>	of	<u>10</u>	Comb. Turbine w/HRSG (CT 3A
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Potential/Fugitive Emissions

_				 	
1.	Pollutant Emitted: SAM	2.	Tota	l Percent Effici	ency of Control:
	(Sulfuric Acid Mist)				
3.	Potential Emissions:				4. Synthetically
	113 lb/hour		70	tons/year	Limited? [Yes]
5.	Range of Estimated Fugitive Emissions:				
		.		to to	ons/year
6.	Emission Factor: 113 lb/hr				7. Emissions
	Reference: Permit derived				Method Code: 5
8.	Calculation of Emissions (limit to 600 chara Not Applicable	cters):		
9.	Pollutant Potential/Fugitive Emissions Com	ment	(lim	it to 200 charac	cters):
	Potential emission rates are based on oil fi are synthetically limited based on Specific #PSD-FL-146.	iring	. Th	e emissions of	this pollutant
<u>All</u>	owable Emissions Allowable Emissions	1	of_	1	
1.	Basis for Allowable Emissions Code: OTHER	2.		re Effective D	ate of Allowable
3.	Requested Allowable Emissions and Units: Not Applicable	4.	Equ		ble Emissions: ns/year
5.	Method of Compliance (limit to 60 character Annual Operating Report	rs):			
6.	Allowable Emissions Comment (Desc. of Op	perat	ing N	/ethod) (limit t	to 200 characters):
De	termined by BACT and tabulated for PSD D Permit PSD-FL-146, specific condition N	and	inve		
					

Emissions Unit Information Section 3 of 10 Comb. Turbine w/HRSG (CT 3A
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Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1	Pollutant Emitted: Hg	2. Total Percent Efficiency of Control:
1.	3	2. Total Forcett Efficiency of Control.
	(Mercury Compounds)	
3.	Potential Emissions:	4. Synthetically
	0.021 lb/hour	0.034 tons/year Limited? [Yes]
5.	Range of Estimated Fugitive Emissions:	
		totons/year
6.	Emission Factor: 0.021 lb/hr	7. Emissions
	Reference: Permit derived	Method Code: 5
8.	Calculation of Emissions (limit to 600 chara	cters):
	Not Applicable	
	• •	
9.	Pollutant Potential/Fugitive Emissions Com	nent (limit to 200 characters):
	Potential emission rates are based on gas t	iring. The emissions of this pollutant are
	synthetically limited based on Specific Co	ndition 4, footnote a. of Permit #PSD-FL-
	146. (oil emission rate = 0.0052 lb/hr)	
All	owable Emissions Allowable Emissions	of <u>1</u>
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
	OTHER	Emissions:
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
	Not Applicable	lb/hour tons/year
		<u> </u>
5.	Method of Compliance (limit to 60 character	s):
	Annual Operating Report	
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to 200 characters):
		SD and inventory purposes as required by
	PSD Permit PSD-FL-146, specific condition	
	•	

Emissions Unit Information Section	3	of	10	Comb. Turb	ine w/HRSG	(CT 3A)
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1	nten	tial	ин	OITIVE	⊦⊩m	<u>issions</u>
		*****				13310113

1. Pollutant Emitted: Be	2. Total Percent Effici	ency of Control:
(Beryllium Compounds)		
3. Potential Emissions: 0.004 lb/hour	0.004 tons/year	4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	to to	ns/year
6. Emission Factor: 0.004 lb/hr Reference: Permit derived		7. Emissions Method Code:
8. Calculation of Emissions (limit to 600 chara Not Applicable 9. Pollutant Potential/Fugitive Emissions Com Potential emission rates are based on oil synthetically limited based on Specific Co 146.	ment (limit to 200 charac firing. The emissions o	f this pollutant are
Allowable Emissions Allowable Emissions	<u>1</u> of <u>1</u>	
Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ate of Allowable
3. Requested Allowable Emissions and Units: Not Applicable	4. Equivalent Allowa lb/hour to	ble Emissions: ns/year
5. Method of Compliance (limit to 60 characte Annual Operating Report	rs):	
6. Allowable Emissions Comment (Desc. of O Determined by BACT and tabulated for I PSD Permit PSD-FL-146, specific condition	SD and inventory purp	

Emissions Unit Information Section	3	of	10	Comb. Turbine w/HRSG (CT 3A
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Emissions-Limited and Preconstruction Review Pollutants Only)

Th 4 4*	1.787	• . •	•	
Potentia	a I/ H n	BOILING	⊦ mı	2 anipe
T OFFICE	40 : 4			CHURCE

1 otential rugitive Emissions		
1. Pollutant Emitted: FI	2. Total Percent Effici	ency of Control:
(Fluorides Total)		
3. Potential Emissions: 0.055 lb/hour	0.055 tons/year	4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions:		
[]1 [.]2 []3	to to	ns/year
6. Emission Factor: 0.055 lb/hr		7. Emissions
Reference: Permit derived		Method Code: 5
8. Calculation of Emissions (limit to 600 chara	cters):	
Not Applicable	,	
9. Pollutant Potential/Fugitive Emissions Comp Potential emission rates are based on oil for are synthetically limited based on Specifically #PSD-FL-146.	iring. The emissions of	this pollutant
Allowable Emissions Allowable Emissions	<u>1</u> of <u>1</u>	
Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ate of Allowable
3. Requested Allowable Emissions and Units:	4. Equivalent Allowa	ble Emissions:
Not Applicable	lb/hour to:	ns/year
5. Method of Compliance (limit to 60 character	rs);	
• `		
6. Allowable Emissions Comment (Desc. of Op	perating Method) (limit t	o 200 characters):
Determined by BACT and tabulated for P	, ,	
PSD Permit PSD-FL-146, specific condition	on No. 5.	-

Emissions Unit Information Section	3	of	10	Comb. Turbine w/HRSG	(CT 3A)
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H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emis	sions Limitation <u>1</u> of	3
Visible Emissions Subtype:	2. Basis for Allowable	Opacity:
VE20	[] Rule	[X] Other
3. Requested Allowable Opacity:		
Normal Conditions: 20 % E Maximum Period of Excess Opacity Allov	Exceptional Conditions: wed:	% min/hour
4. Method of Compliance: VE Test (EPA Method 9)		
5. Visible Emissions Comment (limit to 200 The allowable opacity limits listed abov only. Refer to Site Certification specific condition 8.	e are applicable to operat	
Visible Emissions Limitation: Visible Emis	sions Limitation <u>2</u> of	3
1. Visible Emissions Subtype: VE10	2. Basis for Allowable [X] Rule	Opacity:
Requested Allowable Opacity: Normal Conditions: 10 % E Maximum Period of Excess Opacity Allow	Exceptional Conditions: wed:	100 % 60 min/hour
4. Method of Compliance: VE Test (EPA Method 9)		
5. Visible Emissions Comment (limit to 200	,	D.f. 4
Allowable opacity limits above are application Site Certification specific condition II.A		

Emissi	ons Unit Information Se	ection 3	of <u>10</u>	_ Comb. Tu	rbine w/HRSG ((CT 3A)
Visible	Emissions Limitation:	Visible Emiss	ions Limita	tion <u>3</u>	of <u>3</u>	
1. Visib	ole Emissions Subtype: VE100		ſ	for Allowab Rule	le Opacity: [] Other	
Nor	quested Allowable Opacit rmal Conditions: ximum Period of Excess	100 % E	xceptional (/ed:	Conditions:	% min/l	hour
4. Met	thod of Compliance: VE Test (EPA	A Method 9)				
DE	ible Emissions Comment P Rule 62-210.700(1) all tdown and malfunction	ows excess en	,	up to 2 hrs/	24 hrs for startu	ıp,

Emissions Unit Information Section	3	of	10	Comb. Turbine w/HRSG	(CT 3A)
Zimonono e mie imiorimation dection	_	~ .	A .	Combi larbine willing	

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

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement:	[X] Rule [] Other
4. Monitor Information Manufacturer: : NOx = TECO Model Number: NOx = 42 Serial Number: NOx = 42D-49806-284	$CO_2 = Milton Roy$ $CO_2 = 3300$ $CO_2 = N2CO320T$
5. Installation Date: 12/09/1994	6. Performance Specification Test Date: 12/28/94
7. Continuous Monitor Comment (limit to 200 This emission unit is classified as a "gas f therefore not required to monitor opacity	ired" under the 40 CFR 75 definitions and

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

Supplemental Requirements

1.	Process Flow Diagram
	[X] Attached, Document ID: PMRU3-1.jpg [] Not Applicable [] Waiver Requested
2.	Fuel Analysis or Specification [X] Attached, Document ID: PMRU1 -2.txt [] Not Applicable [] Waiver Requested
3.	Detailed Description of Control Equipment [] Attached, Document ID: [X] Not Applicable [] Waiver Requested
4.	Description of Stack Sampling Facilities [X] Attached, Document ID: PMRU3-4.jpg [] Not Applicable [] Waiver Requested
5.	Compliance Test Report
	[] Attached, Document ID:
	[] Previously submitted, Date:
	[X] Not Applicable
6.	Procedures for Startup and Shutdown
	[X] Attached, Document ID PMRU3-6.txt [] Not Applicable [] Waiver Requested
7.	Operation and Maintenance Plan
	[] Attached, Document ID: [X] Not Applicable [] Waiver Requested
8.	Supplemental Information for Construction Permit Application
	[] Attached, Document ID: [X] Not Applicable
9.	Other Information Required by Rule or Statute
	[] Attached, Document ID: [X] Not Applicable
10	. Supplemental Requirements Comment:
İ	

Additional Supplemental Requirements for Title V Air Operation Permit Applications
11. Alternative Methods of Operation
[X] Attached, Document ID: PMRU3-11.txt [] Not Applicable
12. Alternative Modes of Operation (Emissions Trading)
[] Attached, Document ID: [X] Not Applicable
13. Identification of Additional Applicable Requirements
[] Attached, Document ID: [X] Not Applicable
(Note: Refer to Title V permit 085001-008-AV))
14. Compliance Assurance Monitoring Plan
[] Attached, Document ID: [X] Not Applicable
(Note: Refer to Attachment PMRCAM)
15. Acid Rain Part Application (Hard-copy Required)
[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: <u>PMREU1-15</u>
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:
Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:
[] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:
[] Not Applicable

Emissions Unit Information Section 4	of	<u>10</u>	Comb. Turbine w.	/HRSG	(CT 3B)
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III. EMISSIONS UNIT INFORMATION

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

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

1.	Type of Emissions Unit Addressed in This Section: (Check one)				
[}	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.				
[n addresses, as a single emis s which produce fugitive em		
2.	Regulated or Unr	egulated Emissions Unit	? (Check one)		
[)	The emissions unit.	unit addressed in this Em	aissions Unit Information Sec	ction is a regulated	
[] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.				
3.	•		in This Section (limit to 60 ory Steam Generator (HRS	,	
4.	Emissions Unit Identification Number: [] No ID ID: 04 [] ID Unknown				
5.	Emissions Unit Status Code:	6. Initial Startup Date: 02/16/94	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? [Y]	
9.	Emissions Unit C	omment: (Limit to 500 C	Characters)	7.7	
			o combustion turbines with		
			SG). Each combustion turk		
			overed in the HRSGs is sen electric power. Generator r		
		-coupled generator only			

DEP Form No. 62-210.900(1) – Form Effective: 2/11/99

	ontrol Equipment/Method Description (Limit to 200 characters per device or method):	
	ry Low- NO_X Combustors for Natural Gas combustion and steam injection for istillate oil combustion.	
	•	
2 0	ontrol Device or Method Code(s): 025	
·	ontrol Device or Method Code(s): 025	
·	ontrol Device or Method Code(s): 025 sions Unit Details	-
Emis	sions Unit Details ackage Unit:	
Emis	sions Unit Details ackage Unit: Ianufacturer: GE Model Number: MS7001FA	
Emis 1. P. N 2. G	sions Unit Details ackage Unit: Ianufacturer: GE Model Number: MS7001FA enerator Nameplate Rating: 204 MW	
Emis 1. P. N 2. G	sions Unit Details ackage Unit: lanufacturer: GE Model Number: MS7001FA enerator Nameplate Rating: 204 MW cinerator Information:	
Emis 1. P. N 2. G	sions Unit Details ackage Unit: Ianufacturer: GE Model Number: MS7001FA enerator Nameplate Rating: 204 MW	

Emissions Unit Information Section 4 of 10 Comb. T	urbine w/HRSG (CT 3B)
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B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1.	Maximum Heat Input Rate:	1,966	mmBtu/hr		
2.	Maximum Incineration Rate:		lb/hr		tons/day
3.	Maximum Process or Throughpu	ut Rate:			
4.	Maximum Production Rate:				
5.	Requested Maximum Operating	Schedule:		· ·	
		hours/day	/		days/week
		weeks/ye	ar	8,760	hours/year
6.	Maximum Heat Input (HI) Ra 40 deg. F. Max.; HI for dist. O	il = 1,846 ı	mmBtu. Compl	iance met	hod for HI is fuel
0.	Maximum Heat Input (HI) Ra	il = 1,846 ı	mmBtu. Compl	num for na liance met	hod for HI is fuel

C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

40 CFR 72.9 (a) Acid Rain Permits	Permit requirements
40 CFR 72.9 (b), Acid Rain Permits	Monitoring Requirements
40 CFR 72.9 (c)(1), Acid Rain Permits	SO2 Allowance Requirements - Holding
40 CFR 72.9 (c)(2), Acid Rain Permits	SO2 Allowance - Excess Emissions Violations
40 CFR 72.9 (c)(3)(iii), Acid Rain Permits	SO2 Allowance - Phase II Unit applicability
40 CFR 72.9 (c)(4), Acid Rain Permits	SO2 Allowance Tracking System Accounts
40 CFR 72.9 (c)(5), Acid Rain Permits	SO2 Allowance Year of Use Requirement
40 CFR 72.9 (d), Acid Rain Permits	NOx Requirements
40 CFR 72.9 (e), Acid Rain Permits	Excess Emission Requirements & Offsets
40 CFR 72.9 (f), Acid Rain Permits	Recordkeeping and Reporting
40 CFR 72.9 (g), Acid Rain Permits	Liability and Civil Penalty
40 CFR 72.20 (a), Acid Rain Permits	Designated Representative Requirement
40 CFR 72.20 (b), Acid Rain Permits	Designated Representative Legal Binding
40 CFR 72.20 (c), Acid Rain Permits	Designated Representative Certification
40 CFR 72.21, Acid Rain Permits	Submissions by Designated Representative
40 CFR 72.22, Acid Rain Permits	Alternate Designated Representative Requirement
40 CFR 72.23, Acid Rain Permits	Changing Designated Representatives or Owners
40 CFR 72.24, Acid Rain Permits	Designated Representative Certificate of Representation
40 CFR 72.30 (a), Acid Rain Permits	Acid Rain Permit Duty to Apply

Emissions Unit Information Section	4	of	10	Comb. Turbine w/HRSG ((CT 3B)
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List of Applicable Federal Regulations

40 CFR 72.30 (b) (2), Acid Rain Permits	Acid Rain Permit Requirements to apply
	for Phase II
40 CFR 72.30 (c), Acid Rain Permits	Acid Rain Permit Renewal application
	prior to Permit Expiration
40 CFR 72.30 (d), Acid Rain Permits	Acid Rain Permit Submittal Requirements
40 CFR 72.31, Acid Rain Permits	Acid Rain Permit Information
	Requirements
40 CFR 72.32, Acid Rain Permits	Permit Application Shield
40 CFR 72.33 (b), Acid Rain Permits	Identification of Dispatch System
40 CFR 72.33 (c), Acid Rain Permits	Dispatch System Requirements
40 CFR 72.33 (d), Acid Rain Permits	Changing Dispatch System Identification
40 CFR 72.40, Acid Rain Permits	Compliance Plan Application
	Requirements
40 CFR 72.50, Acid Rain Permits	General Permit Requirements
40 CFR 72.51, Acid Rain Permits	Permit Shield
40 CFR 72.90, Acid Rain Permits	Annual Compliance Certification
40 CFR 73.30, SO2 Allowance System	Allowance Tracking System Accounts
40 CFR 73.31, SO2 Allowance System	Establishment of Accounts
40 CFR 73.32, SO2 Allowance System	Allowance Account Contents
40 CFR 73.33, SO2 Allowance System	Authorized Account Representative
40 CFR 73.35 (a), SO2 Allowance System	Compliance and Allowance Transfer Deadline
40 CFR 73.35 (b), SO2 Allowance System	Allowance Deductions for Compliance
40 CFR 73.35 (c), SO2 Allowance System	Identification of Allowances by Serial Number

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List of Applicable Federal Regulations

40 CFR 73.35 (d), SO2 Allowance System	Deductions for Excess Emissions
40 CFR 75.4, CEMS	Compliance Dates
40 CFR 75.5, CEMS	Prohibitions
40 CFR 75.10 (a) (1), CEMS	Primary Measurement - SO2
40 CFR 75.10 (a) (2), CEMS	Primary Measurement - NOx
40 CFR 75.10 (a) (3) (i), CEMS	Primary Measurement - CO2 & O2 Monitor
40 CFR 75.10 (b), CEMS	Primary Equipment Performance Requirements
40 CFR 75.10 (c), CEMS	Heat Input Measurement Requirement
40 CFR 75.10 (f), CEMS	Minimum Measurement Capability
40 CFR 75.10 (g), CEMS	
40 CFR 75.11 (d), CEMS	SO2 Emission Monitoring Requirements for Gas-Fired Units
40 CFR 75.11 (e), CEMS	SO2 Emissions Monitoring Gas-Fired Units
40 CFR 75.12 (a), CEMS	NOx Monitoring
40 CFR 75.12 (b), CEMS	NOx Monitoring Moisture Correction
40 CFR 75.12 (c), CEMS	NOx Monitoring Determination of NOx Emission Rate - Appendix F
40 CFR 75.13 (b), CEMS	CO2 Emissions Monitoring Appendix G
40 CFR 75.13 (c), CEMS	CO2 Mass Emissions Monitoring Appendix F
40 CFR 75.14 (c), CEMS	Opacity Monitoring Gas Unit Exemption
40 CFR 75.20 (a), CEMS	Initial Certification & Loss of Certification

List of Applicable Federal Regulations

40 CFR 75.20 (b), CEMS	Recertification Approval Process
40 CFR 75.20 (c), CEMS	Certification Procedures
40 CFR 75.20 (d), CEMS	Certification and QA/QC for Backup Monitors
40 CFR 75.20 (f), CEMS	Certification of Alternative Monitoring Systems
40 CFR 75.21 (a), CEMS	CEMS QA/QC
40 CFR 75.21 (c), CEMS	Calibration Gasses for CEMS QA/QC
40 CFR 75.21 (d), CEMS	QA/QC RATA Periodic Notification
40 CFR 75.21 (e), CEMS	QA/QC Audit Consequences
40 CFR 75.22 , CEMS	Reference Test Methods
40 CFR 75.24 , CEMS	Out of Control Periods and Bias Adjustment
40 CFR 75.30 (a)(3), CEMS	NOx Missing Data Substitution Procedures
40 CFR 75.30 (a)(4), CEMS	SO2 Missing Data Substitution Procedures
40 CFR 75.30 (b), CEMS	Missing Data Substitution Procedures for Backup Monitors
40 CFR 75.30 (c), CEMS	Missing Data Substitution using Backup Monitors
40 CFR 75.30 (d), CEMS	SO2 Missing Data Substitution - Gas Units
40 CFR 75.31 , CEMS	Initial Missing Data Procedures
40 CFR 75.32 , CEMS	Monitoring Data Availability for Missing Data
40 CFR 75.33 , CEMS	Standard Missing Data Procedures
40 CFR 75.36 , CEMS	Missing Data for Heat Input

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List of Applicable Federal Regulations

40 CFR 75.40 , CEMS	Alternate Monitoring Systems General Demonstration Requirements
40 CFR 75.41, CEMS	Alternate Monitoring Systems Precision Criteria
40 CFR 75.42 , CEMS	Alternate Monitoring Systems Reliability Criteria
40 CFR 75.43 , CEMS	Alternate Monitoring Systems Accessibility Criteria
40 CFR 75.44 , CEMS	Alternate Monitoring Systems Timeliness Criteria
40 CFR 75.45 , CEMS	Alternate Monitoring Systems Daily QA
40 CFR 75.46 , CEMS	Alternate Monitoring Systems Missing Data Substitution Criteria
40 CFR 75.47 , CEMS	Alternate Monitoring Systems Criteria For a Class of Affected Unit
40 CFR 75.48 , CEMS	Petition for Alternate Monitoring Systems
40 CFR 75.53 , CEMS	Monitoring Plan
40 CFR 75.54 , CEMS	General Recordkeeping Provisions
40 CFR 75.55 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.55 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.56 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.57 , CEMS	General Recordkeeping Provisions
40 CFR 75.58 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.58 (e) , CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.59 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.60 , CEMS	General Reporting Requirements

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List of Applicable Federal Regulations

40 CFR 75.61 , CEMS	Reporting Requirements Notifications
40 CFR 75.62 , CEMS	Monitoring Plan Reporting Requirements
40 CFR 75.63 , CEMS	Certification Reporting Requirements
40 CFR 75.64 (a), CEMS	Quarterly Reports Submission
40 CFR 75.64 (b), CEMS	Quarterly Reports Designated Representative Statement
40 CFR 75.64 (c), CEMS	Quarterly Reports Compliance Certification
40 CFR 75.64 (d), CEMS	Quarterly Reports Electronic Submittal
40 CFR 75.65, CEMS	
40 CFR 75.66, CEMS	Petitions to the Administrator (if required)
40 CFR Part 75 - Appendix A-1	Installation and Measurement Locations
40 CFR Part 75 - Appendix A-2	Equipment Specifications
40 CFR Part 75 - Appendix A-3	Performance Specifications
40 CFR Part 75 - Appendix A-4	Data Handling and Acquisition Systems
40 CFR Part 75 - Appendix A-5	Calibration Gasses
40 CFR Part 75 - Appendix A-6	Certification Tests and Procedures
40 CFR Part 75 - Appendix A-7	Calculations
40 CFR Part 75 - Appendix B	QA/QC Procedures
40 CFR Part 75 - Appendix C-1	Missing Data; SO2 & NOx for controlled sources
40 CFR Part 75 - Appendix C-2	Missing Data ; Load Based Procedure; NOx & Flow

List of Applicable Federal Regulations

40 CFR Part 75 - Appendix D	Optional SO2 Emissions Protocol for Gas Fired Units
40 CFR Part 75 - Appendix F	Conversion Procedures
40 CFR Part 75 - Appendix G-2	Conversion Procedures
40 CFR Part 75 - Appendix G-4	Conversion Procedures
40 CFR Part 75 - Appendix H	Conversion Procedures
40 CFR 77.3, Excess Emissions	Future SO2 Offset Plans
40 CFR 77.5 (b), Excess Emissions	Future Deduction of SO2 Allowances for Excess SO2 Emissions
40 CFR 77.6, Excess Emissions	Future Penalties for Excess Emissions of SO2 and NOx
40 CFR 60.332(a)(1) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.332(b) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.332(f), Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.332(k), Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.333(b), Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.333(k) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.334(a) , Subpart GG	Monitoring of water injection during firing of oil
40 CFR 60.334(b)(1) , Subpart GG	Monitoring of operation during firing of oil, oil specifications
40 CFR 60.334(b)(2) , Subpart GG	Monitoring of operation during firing of natural gas, gas specifications
40 CFR 60.334(c)(1), Subpart GG	Monitoring of NOx emissions at load conditions during operation
40 CFR 60.335, Subpart GG	Custom Fuel Monitoring Schedule for Natural Gas

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List of Applicable State Regulations

FAC 62-204.800(12) (State Only)	Acid Rain Program
FAC 62-204.800(13) (State Only)	Allowances
FAC 62-204.800(14) (State Only)	Acid Rain Program Monitoring
FAC 62-204.800(16) (State Only)	Excess Emissions
FAC 62-210.650, Stationary Sources	Circumvention; EU's with control device
FAC 62-210.700 (1), Stationary Sources	Excess Emissions
FAC 62-210.700 (4), Stationary Sources	Excess Emissions & Poor Maintenance
FAC 62-210.700 (6), Stationary Sources	Excess Emissions Notification
FAC 62-210.300 , Acid Rain	Acid Rain Unit Applicability
FAC 62-210.320 (1)(a),(2), Acid Rain	Acid Rain Unit Application Shield
FAC 62-210.330 (1)(a)1., Acid Rain	Acid Rain Unit Compliance Options
FAC 62-210.340 , Acid Rain	New and Retired Unit Exemptions
FAC 62-210.350(2);(3);(6), Acid Rain	Acid Rain Unit Certification
FAC 62-210.370 , Acid Rain	Acid Rain Unit Revisions & Corrections
FAC 62-210.430 , Acid Rain	Compliance Options for Acid Rain Units
FAC 62-296.320(4)(b), Stationary Units	CT & Diesel Unit (State Only)
FAC 62-297.310(1), Emiss. Monitoring	Test Runs - Mass Emissions
FAC 62-297.310(2)(b) , Emiss. Monitoring	Operating Rate
FAC 62-297.310(3), Emiss. Monitoring	Calculation of Emissions
FAC 62-297.310(8), Emiss. Monitoring	Test Reports

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List of Applicable State Regulations

FAC 62-297.310(4)(a) , Emiss. Monitoring	Applicable Test Procedures, Sampling Time
FAC 62-297.310(4)(b) , Emiss. Monitoring	Sample Volume
FAC 62-297.310(4)(c), Emiss. Monitoring	Required Low Rate Range-PM, H2SO4,F
FAC 62-297.310(4)(d), Emiss. Monitoring	Calibration
FAC 62-297.310(4)(e), Emiss. Monitoring	EPA Method 5 (applicable when combusting oil)
FAC 62-297.310(5), Emiss. Monitoring	Determination of Process Variables
FAC 62-297.310(6)(a), Emiss. Monitoring	Permanent Testing Facilities
FAC 62-297.310(6)(c), Emiss. Monitoring	Sampling Ports
FAC 62-297.310(6)(d), Emiss. Monitoring	Work Platforms
FAC 62-297.310(6)(e), Emiss. Monitoring	Access
FAC 62-297.310(6)(f), Emiss. Monitoring	Electrical Power Provisions
FAC 62-297.310(6)(g), Emiss. Monitoring	Equipment Support
FAC 62-297.310(7)(a)3, Emiss. Monitoring	Permit Renewal Test Requirement
FAC 62-297.310(7)(a)4b,Emiss. Monitoring	Annual Test Requirement
FAC 62-297.310(7)(a)5, Emiss. Monitoring	Exemption from PM Test if operation is less than 400 hrs on oil/distillate
FAC 62-297.310(7)(a)9, Emiss. Monitoring	FDEP Notification 15 days prior to tests
FAC 62-297.310(7)(c), Emiss. Monitoring	Waiver for Compliance Tests for Fuel Sampling

Emissions Unit Information Section 4 of 10 Comb. Turbine w/HRSG (CT 3B)

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

Emission Point Description and Type

1.	Identification of Point on Pl Flow Diagram? See Figure		2. Emission Point Type Code: 1								
3.	3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):										
	Unit exhaust through single stack.										
Onit Canaust thi ough single stack.											
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:											
! :											
5.	Discharge Type Code:	6. Stack Heigl	ht:	7. Exit Diameter:							
	V		213.3 feet	20 feet							
8.	Exit Temperature:		umetric Flow	10. Water Vapor:	_						
	280 °F	Rate: 2,4	120,307 acfm	%							
11.	Maximum Dry Standard Flo	ow Rate: dscfm	12. Nonstack Er	nission Point Height: feet							
13.	Emission Point UTM Coord	linates:			_						
	Zone: 17 E	ast (km): 5432	Nortl	h (km): 299261							
14.	Emission Point Comment (1	imit to 200 chara	acters):								
	The Volumetric Flow Rate	e (VFR) given al	bove is reflective	e of a 40 degree F ambient							
	idition while firing oil. The		., .								
2,3	52,904 acfm. The VFR wh	iie iiring nat. ga	is in power aug.	mode is 2,468,838 acim.							

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

<u>Se</u>	gment Description and Ra	ite: Segment	<u>l of2</u>	
1.	Segment Description (Pro- Pipeline Natural Gas but		•	aracters):
	- pomo mana Gas pa			
2.	Source Classification Cod	e (SCC):	3. SCC Units	S:
	2-01-002-01		Million C	ubic Feet
4.	Maximum Hourly Rate: 1.87	5. Maximum / 16,381.2		6. Estimated Annual Activity Factor:
7.	Maximum % Sulfur: 0.0031	8. Maximum 9	∕₀ Ash:	9. Million Btu per SCC Unit: 1,050
10.	Segment Comment (limit	to 200 characters):	
0/0	S = 110gr of \$/1000 CF ga	sl * [1]b \$/7000	arl ICE ase/0 (046 lb gas]*100 = 0.0031%S
701	o [10gi 015/1000 Cir ga.	sj [1 10 5/7000	giller gas/o.	040 10 gast 100 - 0.0031 703
Se	gment Description and Ra	ite: Segment 2	of <u>2</u>	
	Segment Description (Prod	cess/Fuel Type)	(limit to 500 cl	naracters):
		cess/Fuel Type)	(limit to 500 cl	naracters):
	Segment Description (Prod	cess/Fuel Type)	(limit to 500 cl	naracters):
	Segment Description (Prod	cess/Fuel Type)	(limit to 500 cl	naracters):
	Segment Description (Prod	cess/Fuel Type)	(limit to 500 cl	naracters):
1.	Segment Description (Prod	cess/Fuel Type) ed in Combustio	(limit to 500 cl	
1.	Segment Description (Proc Light Distillate Oil burne	cess/Fuel Type) ed in Combustio	(limit to 500 cl n Turbine	ds:
2.	Segment Description (Proc Light Distillate Oil burne Source Classification Code 2-01-001-01 Maximum Hourly Rate:	cess/Fuel Type) ed in Combustio e (SCC):	(limit to 500 ch n Turbine 3. SCC Unit Thousance Annual Rate:	ds:
2.	Segment Description (Proc Light Distillate Oil burne Source Classification Code 2-01-001-01 Maximum Hourly Rate: 14.13	cess/Fuel Type) ed in Combustio e (SCC):	(limit to 500 ch n Turbine 3. SCC Unit Thousance Annual Rate:	s: H Gallons
2.	Segment Description (Proc Light Distillate Oil burne Source Classification Code 2-01-001-01 Maximum Hourly Rate:	cess/Fuel Type) ed in Combustio e (SCC):	(limit to 500 che in Turbine 3. SCC Unite Thousand Annual Rate:	s: d Gallons 6. Estimated Annual Activity
 2. 4. 7. 	Segment Description (Proc Light Distillate Oil burners Source Classification Code 2-01-001-01 Maximum Hourly Rate: 14.13 Maximum % Sulfur: 0.5 Segment Comment (limit to	cess/Fuel Type) ed in Combustio e (SCC): 5. Maximum 4 28,260 8. Maximum 9 to 200 characters	(limit to 500 cf n Turbine 3. SCC Unit Thousand Annual Rate:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit: 130.66
 2. 4. 7. 	Segment Description (Proc Light Distillate Oil burne Source Classification Code 2-01-001-01 Maximum Hourly Rate: 14.13 Maximum % Sulfur: 0.5 Segment Comment (limit to Max. annual rate is for 2	cess/Fuel Type) ed in Combustio e (SCC): 5. Maximum A 28,260 8. Maximum 9 to 200 characters ,000 hrs of opers	(limit to 500 che n Turbine 3. SCC Unite Thousand Annual Rate: 6 Ash: 3. SCC Unite Thousand Thousand Rate: 6 Ash:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit: 130.66 Oil, which is limited in the PSD
 2. 4. 7. 	Segment Description (Proc Light Distillate Oil burners Source Classification Code 2-01-001-01 Maximum Hourly Rate: 14.13 Maximum % Sulfur: 0.5 Segment Comment (limit to	cess/Fuel Type) ed in Combustio e (SCC): 5. Maximum A 28,260 8. Maximum 9 to 200 characters ,000 hrs of opers	(limit to 500 che n Turbine 3. SCC Unite Thousand Annual Rate: 6 Ash: 3. SCC Unite Thousand Thousand Rate: 6 Ash:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit: 130.66 Oil, which is limited in the PSD
 2. 4. 7. 	Segment Description (Proc Light Distillate Oil burne Source Classification Code 2-01-001-01 Maximum Hourly Rate: 14.13 Maximum % Sulfur: 0.5 Segment Comment (limit to Max. annual rate is for 2	cess/Fuel Type) ed in Combustio e (SCC): 5. Maximum A 28,260 8. Maximum 9 to 200 characters ,000 hrs of opers	(limit to 500 che n Turbine 3. SCC Unite Thousand Annual Rate: 6 Ash: 3. SCC Unite Thousand Thousand Rate: 6 Ash:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit: 130.66 Oil, which is limited in the PSD
 2. 4. 7. 	Segment Description (Proc Light Distillate Oil burne Source Classification Code 2-01-001-01 Maximum Hourly Rate: 14.13 Maximum % Sulfur: 0.5 Segment Comment (limit to Max. annual rate is for 2	cess/Fuel Type) ed in Combustio e (SCC): 5. Maximum A 28,260 8. Maximum 9 to 200 characters ,000 hrs of opers	(limit to 500 che n Turbine 3. SCC Unite Thousand Annual Rate: 6 Ash: 3. SCC Unite Thousand Thousand Rate: 6 Ash:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit: 130.66 Oil, which is limited in the PSD

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
SO2			EL
NOx	025	028	EL
СО			EL
VOC			EL
PM10			EL
SAM			NS
H114			NS
FL			NS
H021			NS
 -			

Emissions Unit Information Section	4	of	10	Comb. Turbine w/HRSG	(CT 3B)
Emissions Onic Rinormation Section	7	VI.	10		(CIJD)

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential	/Fugitive	Emissions

1. Pollutant Emitted: PM ₁₀	2. Total Percent Efficie	ency of Control:
3. Potential Emissions: 60.6lb/hour	100 tons/year	4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	toto	ns/year
6. Emission Factor: 60.6 lb/hr Reference: see comment below		7. Emissions Method Code: 0
8. Calculation of Emissions (limit to 600 characters) NA - limited by permit	eters):	
9. Pollutant Potential/Fugitive Emissions Comm The PSD permit and Site Certification use The hourly rate is for oil firing. The hourl are synth. limited based on PSD-FL-146.	the same emission limi	it for PM and PM ₁₀ ,
Allowable Emissions Allowable Emissions1	of <u></u> 3	
Basis for Allowable Emissions Code: OTHER	Future Effective Da Emissions:	nte of Allowable
3. Requested Allowable Emissions and Units: 18 lb/hour	4. Equivalent Allowal 18 lb/hour 78.8	
5. Method of Compliance (limit to 60 character Not required for Natural Gas firing	s):	
6. Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove for lb/hr emission i	

Al	lowable Emissions Allowable Emissions 2	2 of 3	
	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:	e
3.	Requested Allowable Emissions and Units: 60.6 lb/hour	4. Equivalent Allowable Emissions: 60.6 lb/hour 60.6 tons/year	
5.	Method of Compliance (limit to 60 character DEP Rule 62-296.405(1)(e)2 only for firing		
ο.	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab dist. oil operation. The four CTs of Units	ove for lb/hr emission rate is reflective	e of
	2,000 hours per year for dist. oil firing.	3 & 4 are restricted to an aggregate in	mit of
Al			mit of
	2,000 hours per year for dist. oil firing.		
1.	2,000 hours per year for dist. oil firing. lowable Emissions Allowable Emissions	of 3 2. Future Effective Date of Allowable	
3.	2,000 hours per year for dist. oil firing. lowable Emissions Allowable Emissions	of 3 2. Future Effective Date of Allowabl Emissions: 4. Equivalent Allowable Emissions: 100 tons/year	

Emissions Unit Information Section	4	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 3B)
Pollutant Detail Information Page	2	of	10	

Emissions-Limited and Preconstruction Review Pollutants Only)

P	ol	ten	tia	V.	F۱	u	g	it	ti	ve	E	m	ıis	S	io	n	S

Potential/Fugitive Emissions		
1. Pollutant Emitted: PM	2. Total Percent Effici	ency of Control:
3. Potential Emissions:		4. Synthetically
60.6 lb/hour	100 tons/year	Limited? [Yes]
5. Range of Estimated Fugitive Emissions:		
[]1 []2 []3	to to	ns/year
6. Emission Factor: 60.6 lb/mmBtu		7. Emissions
Reference: see comment below		Method Code: 0
8. Calculation of Emissions (limit to 600 chars	acters):	
NA - limited by permit	,	
O B H + (B + (' VE ')' E ' ' C	. (1: :: 200 1	
9. Pollutant Potential/Fugitive Emissions Com	•	
The PSD permit and Site Certification us The hourly rate is for oil firing. The hour		
are synth. limited based on PSD-FL-146.	1y 1 att 101 11at. Gas is 1	o ib/iii. Eliiissions
Allowable Emissions Allowable Emissions	1 of <u>3</u>	
Basis for Allowable Emissions Code: OTHER	2. Future Effective D Emissions:	ate of Allowable
3. Requested Allowable Emissions and Units:	4. Equivalent Allowa	ble Emissions:
18 lb/hour	18 lb/hour 78.8	tons/year
5. Method of Compliance (limit to 60 characte	ers):	
Not required for Natural Gas firing		
6. Allowable Emissions Comment (Desc. of C	perating Method) (limit t	o 200 characters):
The information given in fields 3 and 4 al	bove for lb/hr emission	rate is reflective of
natural gas operation at 100% capacity f	actor.	

Emissions Unit Information Section 4 of Pollutant Detail Information Page 2 of			
Allowable Emissions Allowable Emissions 2	<u>2</u> of <u>3</u>		
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 60.6 lb/hour	4. Equivalent Allowable Emissions: 60.6 lb/hour 60.6 tons/year		
5. Method of Compliance (limit to 60 character DEP Rule 62-296.405(1)(e)2 only for firing	,		
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The information given in fields 3 and 4 above for lb/hr emission rate is reflective of dist. oil operation. The four CT's of Units 3 & 4 are restricted to an aggregate limit of 2,000 hours per year for dist. oil firing.			
Allowable Emissions Allowable Emissions 3	of <u>3</u>		
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 100 tons/year	4. Equivalent Allowable Emissions: 100 tons/year		
5. Method of Compliance (limit to 60 characters Annual Operating Report	s):		
6. Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 abo PM ₁₀ from all 4 CTs of Units 3 & 4.			

Emissions Unit Information Section	4	of	10	Comb. Turbine w/HRSG (CT 3B)
Pollutant Detail Information Page	3	_ of_	10	` '

Emissions-Limited and Preconstruction Review Pollutants Only)

Potentia	d/Fugitive	Emissions

1.			
1	Pollutant Emitted: SO2	2. Total Percent Efficiency of Control:	
3.	920 lb/hour	568 tons/year 4. Synthetically Limited? [Ye	s]
5.	Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	to tons/year	
6.	Emission Factor: 0.5 % Sulfur in Fuel Reference: see comment	7. Emissions Method Code 5	
9.	Sulfur content of distillate oil is limited to	·	
Al	lowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>	
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:	
3.	Requested Allowable Emissions and Units: 920 lbs/hr	4. Equivalent Allowable Emissions:	
	>20 186/111	920 lb/hour 568 tons/year	
	Method of Compliance (limit to 60 character Fuel Specifications and vendor sampling a	ers):	

		of <u>10</u> f <u>10</u>	Comb.	Turbine w	/HRSG (CT 3B
<u>Al</u>	lowable Emissions Allowable Emissions2	<u>2</u> o	f <u>3</u>		
1.	Basis for Allowable Emissions Code: OTHER		uture Effecti missions:	ve Date of	Allowable
3.	Requested Allowable Emissions and Units: 91.5 lb/hour		quivalent Al 1.5 lb/hour	lowable Em 400.77	issions: tons/year
5.	Method of Compliance (limit to 60 character ASTM Methods D 1072-80, D 3031-87, D-	,	2, or D3246	-81 (or equ	ivalent)
6.	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove fo	- , ,		•
	lowable Emissions Allowable Emissions	<u>3</u> o.	f_3		
	lowable Emissions Allowable Emissions3 Basis for Allowable Emissions Code: OTHER	2. F	f 3uture Effecti	ve Date of	Allowable
1.	Basis for Allowable Emissions Code:	2. F	uture Effecti missions: quivalent Al		issions:
3.	Basis for Allowable Emissions Code: OTHER Requested Allowable Emissions and Units:	2. F E 4. E	uture Effecti missions: quivalent Al	lowable Em	issions:

Emissions Unit Information Section	4	of	10	_ Comb. Turbine w/HRSG (CT 3B)
Pollutant Detail Information Page	4	of	10	_

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

Potential/Fugitive Emissions		
1. Pollutant Emitted: NO _X	2. Total Percent Effici	ency of Control:
3. Potential Emissions: 461 lb/hour	3,108 tons/year	4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions:	to to	ons/year
6. Emission Factor: 461 lb/hr Reference: Permit derived		7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 chara Not Applicable - Limited by PSD Permit.	•	
9. Pollutant Potential/Fugitive Emissions Com Potential emission rates are based on oil rate firing natural gas is 177 lb/hr at 40 d ambient temperatures may vary from the	firing (worst case). The legrees F. Note that em	allowable emission
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>	
Basis for Allowable Emissions Code: OTHER	2. Future Effective D Emissions:	ate of Allowable
3. Requested Allowable Emissions and Units: 461 lb/hr		ble Emissions: 3,108 tons/year
5. Method of Compliance (limit to 60 characte Annual stack testing using EPA Method	,	7E
6. Allowable Emissions Comment (Desc. of C Emissions based on distillate oil operatio based to an aggregate limit of 2,000 hour	n. The emissions of this	pollutant are limited

Emissions Unit Information Section 4 of Pollutant Detail Information Page 4 of	of <u>10</u> Comb. Turbine w/HRSG (CT 3B f <u>10</u>
Allowable Emissions Allowable Emissions	2 of3
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 177 lb/hour	4. Equivalent Allowable Emissions: 177 lb/hour 775.26 tons/year
5. Method of Compliance (limit to 60 character Annual stack testing using EPA Method 2	•
6. Allowable Emissions Comment (Desc. of O The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove for lb/hr emission rate is reflective of
Allowable Emissions Allowable Emissions	3 of3
Basis for Allowable Emissions Code: Emissions limit required by rule	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 3018 tons/year	4. Equivalent Allowable Emissions: lbs/hr 3,018 tons/year
5. Method of Compliance (limit to 60 character Annual Operating Report	rs):
g .	perating Method) (limit to 200 characters): bove represents the annual tpy limit for NO_X value given in field 4 represents emissions

Emissions Unit Information Section	4	_ of	10	Comb. Turbine w/HRSG (CT 3B)
Pollutant Detail Information Page	<u>5</u>	of _	10	

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions		•,
1. Pollutant Emitted: VOC's	2. Total Percent Effici	ency of Control:
3. Potential Emissions: 11 lb/hour	57 tons/year	4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions:	to to	ons/year
6. Emission Factor: 11 lb/hr Reference: Permit derived		7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 chara Not Applicable - Limited by PSD Permit.	ecters):	
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 chara	oters).
Potential emission rates are based on oil f rate firing natural gas is 3 lb/hr at 40 deg temperatures may vary from these values	iring (worst case). The rees F. Note that emissi	allowable emission
Allowable Emissions	<u>1</u> of <u>3</u>	
Basis for Allowable Emissions Code: OTHER	2. Future Effective D Emissions:	ate of Allowable
3. Requested Allowable Emissions and Units: 11 lb/hr	4. Equivalent Allowa 11 lb/hour 1	ble Emissions: 1 tons/year
5. Method of Compliance (limit to 60 character Annual stack testing using EPA Method 1	,	25A
6. Allowable Emissions Comment (Desc. of O Emissions based on distillate oil operation limited based to an aggregate limit of 2,00	. The emissions of this	pollutant are

	of 10 Comb. Turbine w/HRSG (CT 3B 10 10 10 10 10 10 10 10 10 10 10 10 10
Allowable Emissions Allowable Emissions 2	2 of3
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 3 lb/hour	4. Equivalent Allowable Emissions: 3 lb/hour 13.14 tons/year
5. Method of Compliance (limit to 60 character Annual stack testing using EPA Method 1	•
6. Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove for lb/hr emission rate is reflective of
Allowable Emissions Allowable Emissions 3	3of3
Basis for Allowable Emissions Code: Emissions limit required by rule	Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 57 tons/year	4. Equivalent Allowable Emissions: lbs/hr 57 tons/year
5. Method of Compliance (limit to 60 character Annual Operating Report	rs):
6. Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab VOC for this emission unit. In addition, the emissions from 4 combustion turbines.	ove represents the annual tpy limit for

Emissions Unit Information Section	4	of	10	Comb. Turbine w/HRSG (CT 3B)
Pollutant Detail Information Page _			-	_
C. PANICOLONIC LINUTE D		T (OD) A	N/E IN	CTAIL INFORMATION
G. EMISSIONS UNIT F			.NT DE ssions l	

, 5	struction Review Pollutants Only)
Potential/Fugitive Emissions	
Pollutant Emitted: CO	2. Total Percent Efficiency of Control:
3. Potential Emissions: 105.8 lb/hour	871 tons/year 4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	totons/year
6. Emission Factor: 105.8 lb/hr	7. Emissions
Reference: Permit derived	Method Code: 5
8. Calculation of Emissions (limit to 600 char Not Applicable - Limited by PSD Permit.	r
9. Pollutant Potential/Fugitive Emissions Com Potential emission rates are based on oil rate firing natural gas is 94.3 lb/hr at 40 ambient temperatures may vary from the	firing (worst case). The allowable emission degrees F. Note that emissions at other
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>
Basis for Allowable Emissions Code: OTHER	Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 105.8 lb/hr	4. Equivalent Allowable Emissions: 105.8 lb/hour 105.8 tons/year
5. Method of Compliance (limit to 60 characte Annual stack testing using EPA Method	•
6. Allowable Emissions Comment (Desc. of C Emissions based on distillate oil operatio limited based to an aggregate limit of 2,0	•

	missions Unit Information Section <u>4</u> of ollutant Detail Information Page <u>6</u> of	of <u>10</u> Comb. Turbine w/HRSG (CT 3B)
<u>A</u> :	llowable Emissions Allowable Emissions2	2 of <u>3</u>
1.	Basis for Allowable Emissions Code: OTHER	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 94.3 lb/hour	4. Equivalent Allowable Emissions: 94.3 lb/hour 413.034 tons/year
5.	Method of Compliance (limit to 60 character Annual stack testing using EPA Method 1	
6.	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove for lb/hr emission rate is reflective of
<u>A</u>	llowable Emissions Allowable Emissions3	6 of3
1.	Basis for Allowable Emissions Code: Emissions limit required by rule	2. Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 871 tons/year	4. Equivalent Allowable Emissions: lbs/hr 871 tons/year
5.	Method of Compliance (limit to 60 character Annual Operating Report	s):
6.	The information given in fields 3 and 4 ab	perating Method) (limit to 200 characters): ove represents the annual tpy limit for CO value given in field 4 represents emissions

Emissions Unit Information Section	<u>4</u>	_ of	10	Comb. Turbine w/HRSG (CT 3B)
Pollutant Detail Information Page	7	of	10	

Emissions-Limited and Preconstruction Review Pollutants Only)

<u>Po</u>	tential/Fugitive Emissions					
1.	Pollutant Emitted: SAM	2.	Total	Percent Effici	iency	of Control:
	(Sulfuric Acid Mist)					
3.	Potential Emissions: 113 lb/hour		70	tons/year	4.	Synthetically Limited? [Yes]
5.	Range of Estimated Fugitive Emissions:			to to	ons/y	ear
6.	Emission Factor: 113 lb/hr				7.	Emissions
	Reference: Permit derived					Method Code: 5
8.	Calculation of Emissions (limit to 600 chara Not Applicable	cters):			
9.	Pollutant Potential/Fugitive Emissions Componential emission rates are based on oil fare synthetically limited based on Specific #PSD-FL-146.	firin	g. Tl	ne emissions o	f this	s pollutant
All	owable Emissions Allowable Emissions	1	of_	1		
1.	Basis for Allowable Emissions Code: OTHER	2.		re Effective D	ate c	of Allowable
3.	Requested Allowable Emissions and Units: Not Applicable	4.	-	ivalent Allowa lb/hour to		
5.	Method of Compliance (limit to 60 character Annual Operating Report	rs):				
6.	Allowable Emissions Comment (Desc. of Operation Determined by BACT and tabulated for PPSD Permit PSD-FL-146, specific conditions)	SD	and i			- 1

Emissions Unit Information Section	4	_ of	10	Comb. Turbine w/HRSG (CT 3B)
Pollutant Detail Information Page	9	of	10	

Emissions-Limited and Precons	truction Review Polluta	ints Only)
Potential/Fugitive Emissions		
1. Pollutant Emitted: Hg	2. Total Percent Efficie	ency of Control:
(Mercury Compounds)		
3. Potential Emissions: 0.021 lb/hour	0.034 tons/year	4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions:		ns/year
6. Emission Factor: 0.021 lb/hr		7. Emissions
Reference: Permit derived		Method Code: 5
8. Calculation of Emissions (limit to 600 chara Not Applicable	cters):	
9. Pollutant Potential/Fugitive Emissions Composition Potential emission rates are based on gas are synthetically limited based on Specific #PSD-FL-146. (oil emission rate = 0.0052)	firing. The emissions of Condition 4, footnote a	this pollutant
Allowable Emissions Allowable Emissions	1 of <u>1</u>	
Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ate of Allowable
3. Requested Allowable Emissions and Units: Not Applicable	4. Equivalent Allowab	ole Emissions: ns/year
5. Method of Compliance (limit to 60 character Annual Operating Report	rs):	
6. Allowable Emissions Comment (Desc. of Operation Determined by BACT and tabulated for FPSD Permit PSD-FL-146, specific conditions)	SD and inventory purp	,

Emissions Unit Information Section	4_	_ of	10	Comb. Turbine w/HRSG (CT 3B
Pollutant Detail Information Page	9	of	10	

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

10	tentiable agitive Emissions		
1.	Pollutant Emitted: Be	2. Total Percent Efficiency of Control:	
	(Beryllium Compounds)		
3.	Potential Emissions: 0.004 lb/hour	4. Synthetically Limited? [Yes	<u></u>
5.	Range of Estimated Fugitive Emissions:	to tons/year	
6.	Emission Factor: 0.004 lb/hr	7. Emissions	
	Reference: Permit derived	Method Code: 5	
8.	Calculation of Emissions (limit to 600 chara Not Applicable	cters):	
	· ,		
9.	Pollutant Potential/Fugitive Emissions Com- Potential emission rates are based on oil f are synthetically limited based on Specific #PSD-FL-146.	iring. The emissions of this pollutant	
Al	lowable Emissions Allowable Emissions	<u>1</u> of <u>1</u>	
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:	
3.	Requested Allowable Emissions and Units: Not Applicable	4. Equivalent Allowable Emissions: lb/hour tons/year	
5.	Method of Compliance (limit to 60 character Annual Operating Report	rs):	
6.	Allowable Emissions Comment (Desc. of Operation of Determined by BACT and tabulated for FPSD Permit PSD-FL-146, specific conditions)	SD and inventory purposes as required by	y

Emissions Unit Information Section	4	of_	<u>10</u>	Comb. Turbine w/HRSG (CT 3B)
Pollutant Detail Information Page	10	of	10	

Emissions-Limited and Preconstruction Review Pollutants Only)

Pot	tential/Fugitive Emissions					
1.	Pollutant Emitted: Fl	2.	Total	Percent Eff	iciency	of Control:
	(Fluorides Total)					
3.	Potential Emissions:			,	4.	,
	0.055 lb/hour		0.055	tons/year		Limited? [Yes]
5.	Range of Estimated Fugitive Emissions:			to	tons/y	vear
6.	Emission Factor: 0.055 lb/hr		· · · · · · · · · · · · · · · · · · ·		7.	Emissions
	Reference: Permit derived					Method Code: 5
8.	Calculation of Emissions (limit to 600 chara Not Applicable	icters):			
9.	Pollutant Potential/Fugitive Emissions Com Potential emission rates are based on oil synthetically limited based on Specific Co 146.	firing	g. The	e emissions	of thi	s pollutant are
<u>All</u>	owable Emissions Allowable Emissions	1	of	1		
1.	Basis for Allowable Emissions Code: OTHER	2.		re Effective sions:	Date	of Allowable
3.	Requested Allowable Emissions and Units: Not Applicable	4.	•	valent Allov lb/hour		1
	Mark Co. II. di in co. I	┴	•	.—	10113/ y	
3.	Method of Compliance (limit to 60 characte	rs):				
6.	Allowable Emissions Comment (Desc. of O Determined by BACT and tabulated for I PSD Permit PSD-FL-146, specific conditions)	PSD a	and in	, ,		-

Emissions Unit Information Section	1 <u>4</u>	of	10	Comb. Turbine w/HRSG (CT 3B)
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H. VISIBLE EMISSIONS INFORMATION (Only Regulated Emissions Units Subject to a VE Limitation)

_	sible Emissions Limitation: Visible Emiss	ions Limitation <u>1</u> o	f_ <u>3</u>
1.	Visible Emissions Subtype:	2. Basis for Allowable	Opacity:
	VE20	[] Rule	[X] Other
3.	Requested Allowable Opacity:		
		xceptional Conditions:	%
	Maximum Period of Excess Opacity Allow	red:	min/hour
4	Method of Compliance:		
''	VE Test (EPA Method 9)		
5.	Visible Emissions Comment (limit to 200 of The allowable opacity limits listed above only. Refer to Site Certification specific condition 8.	are applicable to opera	
<u>Vi</u>	sible Emissions Limitation: Visible Emiss	ions Limitation <u>2</u> o	f_ <u>3</u>
1.	Visible Emissions Subtype:	2. Basis for Allowable	Opacity:
	VE10	[X] Rule	[] Other
3.	Requested Allowable Opacity: Normal Conditions: 10 % E:		1000
		xceptional Conditions:	100 %
	Maximum Period of Excess Opacity Allow	•	100 % 60 min/hour
4.	Maximum Period of Excess Opacity Allow	•	
4.		•	

Emissions Unit Information Section 4	of 10 Comb. Turbine w/HRSG (CT 3B)
Visible Emissions Limitation: Visible Emiss	tions Limitation <u>3</u> of <u>3</u>
1. Visible Emissions Subtype:	2. Basis for Allowable Opacity:
VE100	[X] Rule [] Other
3. Requested Allowable Opacity:	
Normal Conditions: 100 % E	xceptional Conditions: %
Maximum Period of Excess Opacity Allow	ved: min/hour
4. Method of Compliance: VE Test (EPA Method 9)	
5. Visible Emissions Comment (limit to 200 of DEP Rule 62-210.700(1) allows excess en shutdown and malfunctions.	characters): nissions for up to 2 hrs/24 hrs for startup,

Emissions Unit Information Section	4	of	10	Comb. Turbine w/HRSG	(CT 3B)
Emissions only intolliation occurs	7	U1	10	Collid. I al bine willing	C 1 3 D

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

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code:	2. Pollutant(s): NOx
EM.	
3. CMS Requirement:	[X] Rule [] Other
4. Monitor Information	
Manufacturer: : $NOx = TECO$	$CO_2 = Milton Roy$
Model Number: $NOx = 42$	$CO_2 = 3300$
Serial Number: $NOx = 42D-49811-284$	$CO_2 = N4CO314T$
5. Installation Date:	6. Performance Specification Test Date:
12/09/1994	12/28/94
7. Continuous Monitor Comment (limit to 200	characters):
This emission unit is classified as a "gas f	ired" under the 40 CFR 75 definitions and
therefore not required to monitor opacity	or SO ₂ .
•	

Emissions Unit Information Section 4 of 10 Comb. Turbine w/HRSG (CT 3

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

Supplemental Requirements

$\overline{}$	
1.	Process Flow Diagram
	[X] Attached, Document ID: PMRU3-1.jpg [] Not Applicable [] Waiver Requested
2.	Fuel Analysis or Specification
	[X] Attached, Document ID: PMRU3 -2.txt [] Not Applicable [] Waiver
3.	Detailed Description of Control Equipment
	[X] Attached, Document ID: PMRU3 -3.txt [] Not Applicable [] Waiver
4.	Description of Stack Sampling Facilities
	[X] Attached, Document ID: PMRU3-4.jpg [] Not Applicable [] Waiver Requested
5.	Compliance Test Report
	[] Attached, Document ID:
	[] Previously submitted, Date:
	[X] Not Applicable
6.	Procedures for Startup and Shutdown
	[X] Attached, Document ID PMRU3-6.txt
	[] Not Applicable [] Waiver Requested
7.	Operation and Maintenance Plan
	[] Attached, Document ID: [X] Not Applicable [] Waiver Requested
8.	Supplemental Information for Construction Permit Application
	[] Attached, Document ID: [X] Not Applicable
9.	Other Information Required by Rule or Statute
	[] Attached, Document ID: [X] Not Applicable
10	. Supplemental Requirements Comment:
Щ.	

Emissions Unit Information Section 4 of 10 Comb. Turbine w/HRSG (C	b. Turbine w/HRSG (CT 3B)
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Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[X] Attached, Document ID: PMRU3-11.txt [] Not Applicable
12. Alternative Modes of Operation (Emissions Trading)
[] Attached, Document ID: [X] Not Applicable
13. Identification of Additional Applicable Requirements
[] Attached, Document ID: [X] Not Applicable
(Note: Refer to Title V permit 0850001-008-AV.)
14. Compliance Assurance Monitoring Plan
[] Attached, Document ID: [X] Not Applicable
(Refer to Attachment PMRCAM.) 15. Acid Rain Part Application (Hard-copy Required)
[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: PMREU1-15
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:
[] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:
[] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:
[] Not Applicable

Emissions Unit Information Section	5	of	10	Comb. Turbine w/HRSG ((CT 4A)

III. EMISSIONS UNIT INFORMATION

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

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in Thi	s Section: (Check one)					
[X] This Emissions Unit Information Section process or production unit, or activity, which has at least one definable emission	which produces one or more	, .				
] 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 process or production units and activities		· · · · · · · · · · · · · · · · · · ·				
2. Regulated or Unregulated Emissions Unit	? (Check one)					
[X] The emissions unit addressed in this En emissions unit.	nissions Unit Information Sec	ction is a regulated				
[] The emissions unit addressed in this En emissions unit.	nissions Unit Information Sec	ction is an unregulated				
3. Description of Emissions Unit Addressed Combustion Turbine with Heat Recove	· · · · · · · · · · · · · · · · · · ·	,				
4. Emissions Unit Identification Number:	·	[] No ID				
ID: 05		[] ID Unknown				
5. Emissions Unit 6. Initial Startup	7. Emissions Unit Major	8. Acid Rain Unit?				
Status Code: Date:	Group SIC Code:	[Y]				
A 04/15/94	49					
9. Emissions Unit Comment: (Limit to 500)						
Each combined cycle unit consists of tw						
a Heat Recovery Steam Generator (HR	•					
an electrical generator. Waste heat rec						
generator for production of additional given for the CT-coupled generator only		nameplate rating is				
given for the C1-coupled generator on	ıy.					

Emissions out information Section	01		itblie w/ffk5G (CT 4A)
Emissions Unit Control Equipment			
1. Control Equipment/Method Descrip	ption (Limi	t to 200 characters po	er device or method):
Dry Low-NO _X Combustors for Nodistillate oil combustion.	atural Gas	combustion and st	eam injection for
•			
•			
			•
2. Control Device or Method Code(s):	: 025		
Emissions Unit Details			
1. Package Unit:			
Manufacturer: GE		umber: MS7001FA	
2. Generator Nameplate Rating:	204	MW	
3. Incinerator Information: Dwell Temperat	hure:		°F
Dwell Ti			seconds
Incinerator Afterburner Temperat			٥F

Emissions Unit Information Section	<u>5</u>	of	<u>10</u>	Comb. Turbine w/HRSG (C	T 4A)
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B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1.	Maximum Heat Input Rate:	1,966	mmBtu/hr		
2.	Maximum Incineration Rate:		lb/hr		tons/day
3.	Maximum Process or Throughp	ut Rate:			 ,,
4.	Maximum Production Rate:				
5.	Requested Maximum Operating	Schedule:			
		hours/day	y		days/week
		weeks/year		8,760	hours/year
6.	Operating Capacity/Schedule Co Maximum Heat Input (HI) Ra 40 deg. F. Max.; HI for dist. O sampling and analysis. Opera	ite above = 0il = 1,846	current maxin mmBtu. Comp	num for na liance met	thod for HI is fu
0.	Maximum Heat Input (HI) Ra 40 deg. F. Max.; HI for dist. O	ite above = 0il = 1,846	current maxin mmBtu. Comp	num for na liance met	thod for HI is fu
0.	Maximum Heat Input (HI) Ra 40 deg. F. Max.; HI for dist. O sampling and analysis. Opera	ite above = 0il = 1,846	current maxin mmBtu. Comp	num for na liance met	thod for HI is fu
0.	Maximum Heat Input (HI) Ra 40 deg. F. Max.; HI for dist. O sampling and analysis. Opera	ite above = 0il = 1,846	current maxin mmBtu. Comp	num for na liance met	thod for HI is fu
Ο.	Maximum Heat Input (HI) Ra 40 deg. F. Max.; HI for dist. O sampling and analysis. Opera	ite above = 0il = 1,846	current maxin mmBtu. Comp	num for na liance met	thod for HI is fu
0.	Maximum Heat Input (HI) Ra 40 deg. F. Max.; HI for dist. O sampling and analysis. Opera	ite above = 0il = 1,846	current maxin mmBtu. Comp	num for na liance met	thod for HI is fu
0.	Maximum Heat Input (HI) Ra 40 deg. F. Max.; HI for dist. O sampling and analysis. Opera	ite above = 0il = 1,846	current maxin mmBtu. Comp	num for na liance met	thod for HI is fu

List of Applicable Federal Regulations

40 CFR 72.9 (a) Acid Rain Permits	Permit requirements
40 CFR 72.9 (b), Acid Rain Permits	Monitoring Requirements
40 CFR 72.9 (c)(1), Acid Rain Permits	SO2 Allowance Requirements - Holding
40 CFR 72.9 (c)(2), Acid Rain Permits	SO2 Allowance - Excess Emissions Violations
40 CFR 72.9 (c)(3)(iii), Acid Rain Permits	SO2 Allowance - Phase II Unit applicability
40 CFR 72.9 (c)(4), Acid Rain Permits	SO2 Allowance Tracking System Accounts
40 CFR 72.9 (c)(5), Acid Rain Permits	SO2 Allowance Year of Use Requirement
40 CFR 72.9 (d), Acid Rain Permits	NOx Requirements
40 CFR 72.9 (e), Acid Rain Permits	Excess Emission Requirements & Offsets
40 CFR 72.9 (f), Acid Rain Permits	Recordkeeping and Reporting
40 CFR 72.9 (g), Acid Rain Permits	Liability and Civil Penalty
40 CFR 72.20 (a), Acid Rain Permits	Designated Representative Requirement
40 CFR 72.20 (b), Acid Rain Permits	Designated Representative Legal Binding
40 CFR 72.20 (c), Acid Rain Permits	Designated Representative Certification
40 CFR 72.21, Acid Rain Permits	Submissions by Designated Representative
40 CFR 72.22, Acid Rain Permits	Alternate Designated Representative Requirement
40 CFR 72.23, Acid Rain Permits	Changing Designated Representatives or Owners
40 CFR 72.24, Acid Rain Permits	Designated Representative Certificate of Representation
40 CFR 72.30 (a), Acid Rain Permits	Acid Rain Permit Duty to Apply
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List of Applicable Federal Regulations

40 CFR 72.30 (b) (2), Acid Rain Permits	Acid Rain Permit Requirements to apply for Phase II
40 CFR 72.30 (c), Acid Rain Permits	Acid Rain Permit Renewal application prior to Permit Expiration
40 CFR 72.30 (d), Acid Rain Permits	Acid Rain Permit Submittal Requirements
40 CFR 72.31, Acid Rain Permits	Acid Rain Permit Information Requirements
40 CFR 72.32, Acid Rain Permits	Permit Application Shield
40 CFR 72.33 (b), Acid Rain Permits	Identification of Dispatch System
40 CFR 72.33 (c), Acid Rain Permits	Dispatch System Requirements
40 CFR 72.33 (d), Acid Rain Permits	Changing Dispatch System Identification
40 CFR 72.40, Acid Rain Permits	Compliance Plan Application Requirements
40 CFR 72.50, Acid Rain Permits	General Permit Requirements
40 CFR 72.51, Acid Rain Permits	Permit Shield
40 CFR 72.90, Acid Rain Permits	Annual Compliance Certification
40 CFR 73.30, SO2 Allowance System	Allowance Tracking System Accounts
40 CFR 73.31, SO2 Allowance System	Establishment of Accounts
40 CFR 73.32, SO2 Allowance System	Allowance Account Contents
40 CFR 73.33, SO2 Allowance System	Authorized Account Representative
40 CFR 73.35 (a), SO2 Allowance System	Compliance and Allowance Transfer Deadline
40 CFR 73.35 (b), SO2 Allowance System	Allowance Deductions for Compliance
40 CFR 73.35 (c), SO2 Allowance System	Identification of Allowances by Serial Number

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List of Applicable Federal Regulations

40 CFR 73.35 (d), SO2 Allowance System	Deductions for Excess Emissions
40 CFR 75.4, CEMS	Compliance Dates
40 CFR 75.5, CEMS	Prohibitions
40 CFR 75.10 (a) (1), CEMS	Primary Measurement - SO2
40 CFR 75.10 (a) (2), CEMS	Primary Measurement - NOx
40 CFR 75.10 (a) (3) (i), CEMS	Primary Measurement - CO2 & O2 Monitor
40 CFR 75.10 (b), CEMS	Primary Equipment Performance Requirements
40 CFR 75.10 (c), CEMS	Heat Input Measurement Requirement
40 CFR 75.10 (f), CEMS	Minimum Measurement Capability
40 CFR 75.10 (g), CEMS	
40 CFR 75.11 (d), CEMS	SO2 Emission Monitoring Requirements for Gas-Fired Units
40 CFR 75.11 (e), CEMS	SO2 Emissions Monitoring Gas-Fired Units
40 CFR 75.12 (a), CEMS	NOx Monitoring
40 CFR 75.12 (b), CEMS	NOx Monitoring Moisture Correction
40 CFR 75.12 (c), CEMS	NOx Monitoring Determination of NOx Emission Rate - Appendix F
40 CFR 75.13 (b), CEMS	CO2 Emissions Monitoring Appendix G
40 CFR 75.13 (c), CEMS	CO2 Mass Emissions Monitoring Appendix F
40 CFR 75.14 (c), CEMS	Opacity Monitoring Gas Unit Exemption
40 CFR 75.20 (a), CEMS	Initial Certification & Loss of Certification

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List of Applicable Federal Regulations

40 CFR 75.20 (b), CEMS	Recertification Approval Process
40 CFR 75.20 (c), CEMS	Certification Procedures
40 CFR 75.20 (d), CEMS	Certification and QA/QC for Backup Monitors
40 CFR 75.20 (f), CEMS	Certification of Alternative Monitoring Systems
40 CFR 75.21 (a), CEMS	CEMS QA/QC
40 CFR 75.21 (c), CEMS	Calibration Gasses for CEMS QA/QC
40 CFR 75.21 (d), CEMS	QA/QC RATA Periodic Notification
40 CFR 75.21 (e), CEMS	QA/QC Audit Consequences
40 CFR 75.22 , CEMS	Reference Test Methods
40 CFR 75.24 , CEMS	Out of Control Periods and Bias Adjustment
40 CFR 75.30 (a)(3), CEMS	NOx Missing Data Substitution Procedures
40 CFR 75.30 (a)(4), CEMS	SO2 Missing Data Substitution Procedures
40 CFR 75.30 (b), CEMS	Missing Data Substitution Procedures for Backup Monitors
40 CFR 75.30 (c), CEMS	Missing Data Substitution using Backup Monitors
40 CFR 75.30 (d), CEMS	SO2 Missing Data Substitution - Gas Units
40 CFR 75.31 , CEMS	Initial Missing Data Procedures
40 CFR 75.32 , CEMS	Monitoring Data Availability for Missing Data
40 CFR 75.33 , CEMS	Standard Missing Data Procedures
40 CFR 75.36 , CEMS	Missing Data for Heat Input

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40 CFR 75.40, CEMS	Alternate Monitoring Systems General Demonstration Requirements
40 CFR 75.41 , CEMS	Alternate Monitoring Systems Precision Criteria
40 CFR 75.42 , CEMS	Alternate Monitoring Systems Reliability Criteria
40 CFR 75.43 , CEMS	Alternate Monitoring Systems Accessibility Criteria
40 CFR 75.44 , CEMS	Alternate Monitoring Systems Timeliness Criteria
40 CFR 75.45 , CEMS	Alternate Monitoring Systems Daily QA
40 CFR 75.46 , CEMS	Alternate Monitoring Systems Missing Data Substitution Criteria
40 CFR 75.47 , CEMS	Alternate Monitoring Systems Criteria For a Class of Affected Unit
40 CFR 75.48 , CEMS	Petition for Alternate Monitoring Systems
40 CFR 75.53 , CEMS	Monitoring Plan
40 CFR 75.54 , CEMS	General Recordkeeping Provisions
40 CFR 75.55 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.55 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.56 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.57 , CEMS	General Recordkeeping Provisions
40 CFR 75.58 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.58 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.59 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.60 , CEMS	General Reporting Requirements

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List of Applicable Federal Regulations

40 CFR 75.61 , CEMS	Reporting Requirements Notifications
40 CFR 75.62 , CEMS	Monitoring Plan Reporting Requirements
40 CFR 75.63 , CEMS	Certification Reporting Requirements
40 CFR 75.64 (a), CEMS	Quarterly Reports Submission
40 CFR 75.64 (b) , CEMS	Quarterly Reports Designated Representative Statement
40 CFR 75.64 (e) , CEMS	Quarterly Reports Compliance Certification
40 CFR 75.64 (d) , CEMS	Quarterly Reports Electronic Submittal
40 CFR 75.65 , CEMS	
40 CFR 75.66 , CEMS	Petitions to the Administrator (if required)
40 CFR Part 75 - Appendix A-1	Installation and Measurement Locations
40 CFR Part 75 - Appendix A-2	Equipment Specifications
40 CFR Part 75 - Appendix A-3	Performance Specifications
40 CFR Part 75 - Appendix A-4	Data Handling and Acquisition Systems
40 CFR Part 75 - Appendix A-5	Calibration Gasses
40 CFR Part 75 - Appendix A-6	Certification Tests and Procedures
40 CFR Part 75 - Appendix A-7	Calculations
40 CFR Part 75 - Appendix B	QA/QC Procedures
40 CFR Part 75 - Appendix C-1	Missing Data; SO2 & NOx for controlled sources
40 CFR Part 75 - Appendix C-2	Missing Data ; Load Based Procedure; NOx & Flow

List of Applicable Federal Regulations

Optional SO2 Emissions Protocol for Gas Fired Units
Conversion Procedures
Conversion Procedures
Conversion Procedures
Conversion Procedures
Future SO2 Offset Plans
Future Deduction of SO2 Allowances for Excess SO2 Emissions
Future Penalties for Excess Emissions of SO2 and NOx
Nitrogen Oxide and Sulfur Standards
Monitoring of water injection during firing of oil
Monitoring of operation during firing of oil, oil specifications
Monitoring of operation during firing of natural gas, gas specifications
Monitoring of NOx emissions at load conditions during operation
Custom Fuel Monitoring Schedule for Natural Gas

List of Applicable State Regulations

FAC 62-204.800(12) (State Only)	Acid Rain Program
FAC 62-204.800(13) (State Only)	Allowances
FAC 62-204.800(14) (State Only)	Acid Rain Program Monitoring
FAC 62-204.800(16) (State Only)	Excess Emissions
FAC 62-210.650, Stationary Sources	Circumvention; EU's with control device
FAC 62-210.700 (1), Stationary Sources	Excess Emissions
FAC 62-210.700 (4), Stationary Sources	Excess Emissions & Poor Maintenance
FAC 62-210.700 (6), Stationary Sources	Excess Emissions Notification
FAC 62-210.300 , Acid Rain	Acid Rain Unit Applicability
FAC 62-210.320 (1)(a),(2), Acid Rain	Acid Rain Unit Application Shield
FAC 62-210.330 (1)(a)1., Acid Rain	Acid Rain Unit Compliance Options
FAC 62-210.340 , Acid Rain	New and Retired Unit Exemptions
FAC 62-210.350(2);(3);(6), Acid Rain	Acid Rain Unit Certification
FAC 62-210.370, Acid Rain	Acid Rain Unit Revisions & Corrections
FAC 62-210.430 , Acid Rain	Compliance Options for Acid Rain Units
FAC 62-296.320(4)(b),Stationary Units	CT & Diesel Unit (State Only)
FAC 62-297.310(1), Emiss. Monitoring	Test Runs - Mass Emissions
FAC 62-297.310(2)(b) , Emiss. Monitoring	Operating Rate
FAC 62-297.310(3), Emiss. Monitoring	Calculation of Emissions
FAC 62-297.310(8), Emiss. Monitoring	Test Reports

List of Applicable State Regulations

FAC 62-297.310(4)(a), Emiss. Monitoring	Applicable Test Procedures , Sampling Time
FAC 62-297.310(4)(b), Emiss. Monitoring	Sample Volume
FAC 62-297.310(4)(c), Emiss. Monitoring	Required Low Rate Range-PM, H2SO4,F
FAC 62-297.310(4)(d), Emiss. Monitoring	Calibration
FAC 62-297.310(4)(e), Emiss. Monitoring	EPA Method 5 (applicable when combusting oil)
FAC 62-297.310(5), Emiss. Monitoring	Determination of Process Variables
FAC 62-297.310(6)(a), Emiss. Monitoring	Permanent Testing Facilities
FAC 62-297.310(6)(c), Emiss. Monitoring	Sampling Ports
FAC 62-297.310(6)(d), Emiss. Monitoring	Work Platforms
FAC 62-297.310(6)(e), Emiss. Monitoring	Access
FAC 62-297.310(6)(f), Emiss. Monitoring	Electrical Power Provisions
FAC 62-297.310(6)(g), Emiss. Monitoring	Equipment Support
FAC 62-297.310(7)(a)3, Emiss. Monitoring	Permit Renewal Test Requirement
FAC 62-297.310(7)(a)4b,Emiss. Monitoring	Annual Test Requirement
FAC 62-297.310(7)(a)5, Emiss. Monitoring	Exemption from PM Test if operation is less than 400 hrs on oil/distillate
FAC 62-297.310(7)(a)9, Emiss. Monitoring	FDEP Notification 15 days prior to tests
FAC 62-297.310(7)(c), Emiss. Monitoring	Waiver for Compliance Tests for Fuel Sampling

Emissions Unit Information Section	5	of	10	Comb. Turbine w/HRSG (CT 4A)

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

Emission Point Description and Type

1.	Identification of Point on Pl Flow Diagram? See Figure		2. Emission Po	oint Type Code: 1	
3.	Descriptions of Emission Po 100 characters per point):	oints Comprising	g this Emissions U	Unit for VE Tracking (limit to
	Unit exhaust through sing	le stack			
4.	ID Numbers or Descriptions	s of Emission Ur	nits with this Emi	ssion Point in Commo	 n:
5.	Discharge Type Code: V	6. Stack Heig	ht: 213.3 feet	7. Exit Diameter: 20	feet
8.	Exit Temperature: 280 °F		umetric Flow 420,307 acfm	10. Water Vapor:	%
11.	. Maximum Dry Standard Flo	ow Rate: dscfm	12. Nonstack Er	mission Point Height: f	eet .
13.	Emission Point UTM Coord	linates:			
	Zone: 17 E	ast (km): 5432	266 ·Norti	h (km): 299261	
14.	Emission Point Comment (I	imit to 200 char	acters):		
	The Volumetric Flow Rate adition while firing oil. The 52,904 acfm. The VFR wh	VFR while firi	ng nat. gas unde	er the same condition	is

Emissions Unit Information Section	5	of	10	Comb. Turbine w/HRSG (CT 4A)

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

	<u>ite:</u> Segment1	$\underline{}$ or $\underline{}$	
Segment Description (Pro- Pipeline Natural Gas but			aracters):
2. Source Classification Cod	e (SCC):	3. SCC Units	
2-01-002-01	<u>, </u>	Million C	
4. Maximum Hourly Rate: 1.87	5. Maximum A 16,381.2		6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.0031	8. Maximum %		9. Million Btu per SCC Unit: 1,050
10. Segment Comment (limit	to 200 characters)):	· · · · · · · · · · · · · · · · · · ·
9/ C = [10 = - + C/1000 C/F = -	-) + 11 H C/5000	MOE /A	0.46 H 14100 0.00010/0
%S = [10gr of S/1000 CF ga	sj * [1 16 S/7000	grj CF gas/0.	046 lb gas *100 = 0.0031% S
Segment Description and Ra	ite: Segment2	of2	
1. Segment Description (Prod			haracters):
Light Distillate Oil burn	ed in Combustio	n Turbine	
Source Classification Code	e (SCC):	3. SCC Uni	ts:
2. Source Classification Cod- 2-01-001-01	e (SCC):	3. SCC Uni Thousand	
2-01-001-01 4. Maximum Hourly Rate:	5. Maximum A	Thousand	6. Estimated Annual Activity
2-01-001-01		Thousand Annual Rate:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit:
2-01-001-01 4. Maximum Hourly Rate: 14.13 7. Maximum % Sulfur: 0.5 10. Segment Comment (limit)	5. Maximum A 28,260 8. Maximum % to 200 characters)	Thousand Annual Rate: 6 Ash:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit: 130.66
2-01-001-01 4. Maximum Hourly Rate: 14.13 7. Maximum % Sulfur: 0.5 10. Segment Comment (limit to Max. annual rate is for 2)	5. Maximum A 28,260 8. Maximum % to 200 characters) ,000 hrs of opera	Thousand Annual Rate: 6 Ash: 1: 1: 1: 1: 1: 1: 1: 1: 1:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit: 130.66 Oil, which is limited in the PSD
2-01-001-01 4. Maximum Hourly Rate: 14.13 7. Maximum % Sulfur: 0.5 10. Segment Comment (limit)	5. Maximum A 28,260 8. Maximum % to 200 characters) ,000 hrs of opera	Thousand Annual Rate: 6 Ash: 1: 1: 1: 1: 1: 1: 1: 1: 1:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit: 130.66 Oil, which is limited in the PSD
2-01-001-01 4. Maximum Hourly Rate: 14.13 7. Maximum % Sulfur: 0.5 10. Segment Comment (limit to Max. annual rate is for 2)	5. Maximum A 28,260 8. Maximum % to 200 characters) ,000 hrs of opera	Thousand Annual Rate: 6 Ash: 1: 1: 1: 1: 1: 1: 1: 1: 1:	6. Estimated Annual Activity Factor: % 9. Million Btu per SCC Unit: 130.66 Oil, which is limited in the PSD

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
SO2			EL
NOx	025	028	EL
СО			EL
VOC			EL
PM10			EL
SAM			NS
H114		-	NS
FL			NS ·
H021			NS

Emissions Unit Information Section	<u>5</u>	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 4A)
Pollutant Detail Information Page	1	of	10	

Potential	Fugitive	Emissions
LUCUITIAN	I ugiliye	7211ff223f0ff2

1 Otential Pugitive Emussions		
1. Pollutant Emitted: PM ₁₀	2. Total Percent Effici-	ency of Control:
3. Potential Emissions:	<u> </u>	4. Synthetically
60.6 lb/hour	100 tons/year	Limited? [Yes]
5. Range of Estimated Fugitive Emissions:		
	to to	ns/year
6. Emission Factor: 60.6 lb/hr		7. Emissions
Reference: see comment below		Method Code:
8. Calculation of Emissions (limit to 600 chara NA - limited by permit 9. Pollutant Potential/Fugitive Emissions Com The PSD permit and Site Certification us The hourly rate is for oil firing. The hour are synth. limited based on PSD-FL-146.	ment (limit to 200 charace the same emission lim	eters): it for PM and PM ₁₀ ,
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>	
Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ate of Allowable
3. Requested Allowable Emissions and Units: 18 lb/hour	4. Equivalent Allowal 18 lb/hour 78.8	
5. Method of Compliance (limit to 60 characte Not required for Natural Gas firing	rs):	
6. Allowable Emissions Comment (Desc. of O The information given in fields 3 and 4 al natural gas operation at 100% capacity fac.	ove for lb/hr emission i	

Allowable Emissions Allowable Emissions	
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units 60.6 lb/hour	4. Equivalent Allowable Emissions: 60.6 lb/hour 60.6 tons/year
 Method of Compliance (limit to 60 charac DEP Rule 62-296.405(1)(e)2 only for fire 	
The information given in fields 3 and 4	Operating Method) (limit to 200 characters): above for lb/hr emission rate is reflective of ts 3 & 4 are restricted to an aggregate limit of
Allowable Emissions Allowable Emissions	<u>3</u> of <u>3</u>
	 3 of 3 2. Future Effective Date of Allowable Emissions:
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions:
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and Units	2. Future Effective Date of Allowable Emissions: 4. Equivalent Allowable Emissions: 100 tons/year

Emissions Unit Information Section	5_	_ of	10	Comb. Turbine w/HRSG (CT 4A)
Pollutant Detail Information Page	2	of	10	

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

rotential/rugitive Emissions	
1. Pollutant Emitted: PM	2. Total Percent Efficiency of Control:
3. Potential Emissions:	4. Synthetically
60.6 lb/hour	100 tons/year Limited? [Yes]
5. Range of Estimated Fugitive Emissions:	
	to tons/year
6. Emission Factor: 60.6 lb/mmBtu	7. Emissions
Reference: see comment below	Method Code:
8. Calculation of Emissions (limit to 600 chara	eters):
Not Applicable - limited by permit	
The state of the s	
9. Pollutant Potential/Fugitive Emissions Com	mont (limit to 200 abaractors):
	e the same emission limit for PM and PM ₁₀ ,
The hourly rate is for oil firing. The hour	
are synth. limited based on PSD-FL-146.	iy fute for frue. Ous is to to mill. Ellissions
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>
1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
18 lb/hour	18 lb/hour 78.8 tons/year
5. Method of Compliance (limit to 60 characte	rs):
Not required for Natural Gas firing	
6. Allowable Emissions Comment (Desc. of O	nerating Method) (limit to 200 characters):
The information given in fields 3 and 4 at	, ,
natural gas operation at 100% capacity fa	
material Sus operation at 100 /0 capacity is	
,	

	of <u>10</u> Comb. Turbine w/HRSG (CT 4A)
I dilutant Detail intol mation 1 age	01 <u>10</u>
Allowable Emissions _	2 of 3
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 60.6 lb/hour	4. Equivalent Allowable Emissions: 60.6 lb/hour 60.6 tons/year
5. Method of Compliance (limit to 60 characted DEP Rule 62-296.405(1)(e)2 only for firit	
_	bove for lb/hr emission rate is reflective of
2,000 hours per year for dist, oil firing.	s 3 & 4 are restricted to an aggregate limit of
·	
2,000 hours per year for dist. oil firing.	
2,000 hours per year for dist. oil firing. Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code:	3 of 3 2. Future Effective Date of Allowable Emissions:
2,000 hours per year for dist. oil firing. Allowable Emissions Allowable Emissions	 3 of 3 2. Future Effective Date of Allowable Emissions: 4. Equivalent Allowable Emissions: 100 tons/year

Emissions Unit Information Section 5 Pollutant Detail Information Page 3	of <u>10</u> Comb. Turl of <u>10</u>	oine w/HRSG (CT 4A)
G. EMISSIONS UNIT POLLU (Regulated E	TANT DETAIL INFOR missions Units -	RMATION
Emissions-Limited and Precon		ints Only)
Potential/Fugitive Emissions		
1. Pollutant Emitted: SO2	2. Total Percent Efficie	ency of Control:
3. Potential Emissions: 920 lb/hour	568 tons/year	4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	to to	ns/year
6. Emission Factor: 0.5 % Sulfur in Fuel Reference: see comment		7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 chara Not Applicable – Permit limit on % Sulfu		
9. Pollutant Potential/Fugitive Emissions Com Sulfur content of distillate oil is limited to PSD permit. Oil firing in CT's of Units 3 2,000 hours per year for dist. oil firing.	0.5% max. and 0.3% a	nnual average by the
Allowable Emissions Allowable Emissions	1 of 3	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code:
OTHER
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:
920 lbs/hr
920 lb/hour 568 tons/year

5. Method of Compliance (limit to 60 characters):
Fuel Specifications and vendor sampling and analysis of distillate oil

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):
Emissions based on distillate oil operation. The emissions of this pollutant are synthetically limited based on Specific Condition 4, footnote a. of Permit

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#PSD-FL-146.

		of <u>10</u> Comb. Turbine w/HRSG (CT 4A) f <u>10</u>
<u>A</u>	lowable Emissions Allowable Emissions2	<u>dof3</u>
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 91.5 lb/hour	4. Equivalent Allowable Emissions: 91.5 lb/hour 400.77 tons/year
5.	Method of Compliance (limit to 60 character ASTM Methods D 1072-80, D 3031-87, D-6	
6.	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove for lb/hr emission rate is reflective of
<u>Al</u>	lowable Emissions Allowable Emissions 3	of <u>3</u>
1.	Basis for Allowable Emissions Code: OTHER	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 568 tons/year	4. Equivalent Allowable Emissions: 568 tons/year
5.	Method of Compliance (limit to 60 character Annual Operating Report	s):
6.		perating Method) (limit to 200 characters): ove represents the annual tpy limit for SO2 value given in field 4 represents emissions

Emissions Unit Information Section	5_	_ of	<u> 10</u>	Comb. Turbine w/HRSG (CT 4A)
Pollutant Detail Information Page	4	_ of _	10	

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Potent	กดไ/หา	IOITIVE	Emissions
T OFFIII	1 M /1441	451111	Talling along

<u>Po</u>	tential/Fugitive Emissions					
1.	Pollutant Emitted: NO _X	2. Tot	tal I	Percent Effici	ency	of Control:
3.	Potential Emissions: 461 lb/hour	3,10	08_	tons/year	1	Synthetically Limited? [Yes]
5.	Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3			_to to	ons/ye	ear
6.	Emission Factor: 461 lb/hr				7.	Emissions
	Reference: Permit derived					Method Code: 5
9.	Pollutant Potential/Fugitive Emissions Competential emission rates are based on oil for rate firing natural gas is 177 lb/hr at 40 de ambient temperatures may vary from these	ment (lir iring (w egrees F	ors 7. N	st case). The	allov	vable emission
Al	lowable Emissions Allowable Emissions	<u>l</u> of	3	3		
1.	Basis for Allowable Emissions Code: OTHER	1		e Effective Da	ate of	f Allowable
3.	Requested Allowable Emissions and Units: 461 lbs/hr	4. Eq	_	valent Allowa 61 lb/hour :		missions: tons/year
5.	Method of Compliance (limit to 60 character Annual stack testing using EPA Method 2		 odit	fied Method	7E.	
6.	Allowable Emissions Comment (Desc. of Operation based on distillate oil operation based to an aggregate limit of 2,000 hours	. The er	mis	sions of this	pollu	tant are limited

Allowable Emissions Allowable Emissions	<u>2</u> of <u>3</u>
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 177 lb/hour	4. Equivalent Allowable Emissions: 177 lb/hour 775.26 tons/year
5. Method of Compliance (limit to 60 character Annual stack testing using EPA Method	•
The information given in fields 3 and 4 a natural gas operation at 100% capacity f	bove for lb/hr emission rate is reflective of actor.
	2 6 2
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: Emissions limit required by rule	 3 of 3 2. Future Effective Date of Allowable Emissions:
Basis for Allowable Emissions Code: Emissions limit required by rule	Future Effective Date of Allowable Emissions:
Basis for Allowable Emissions Code: Emissions limit required by rule Requested Allowable Emissions and Units:	Equivalent Allowable Emissions: Begin and the second of Allowable Emissions:

Emissions Unit Information Section	5_	_ of	<u>_10</u>	Comb. Turbine w/HRSG (CT 4A)
Pollutant Detail Information Page	<u>5</u>	of	<u>10</u>	

Potential/Fugitive Emissions	Th		
rotential rugitive emissions	Vatantial	A DEPOSIT OF THE PARTY OF	Lonicolone
	T OHE HIND	/ruyiive	CARLONIUM

Po	tential/Fugitive Emissions					
1.	Pollutant Emitted: VOCs	2.	Γotal	Percent Effic	iency	of Control:
3.	Potential Emissions: 11 lb/hour	5	57	tons/year	4.	Synthetically Limited? [Yes]
5.	Range of Estimated Fugitive Emissions:			to t	ons/y	vear
6.	Emission Factor: 11 lb/hr				7.	
	Reference: Permit derived				:	Method Code: 5
8.	Calculation of Emissions (limit to 600 chara- Not Applicable - Limited by PSD Permit.	cters):		•	
9.	Pollutant Potential/Fugitive Emissions Comp Potential emission rates are based on oil fi rate firing natural gas is 3 lb/hr at 40 degi temperatures may vary from these values.	iring rees l	(woı	rst case). The	allo	wable emission
Al	lowable Emissions Allowable Emissions	1	of_	_3		
1.	Basis for Allowable Emissions Code: OTHER	2.		re Effective E ssions:	Date	of Allowable
3.	Requested Allowable Emissions and Units: 11 lbs/hr	4.	-	ivalent Allow: 11 lb/hour 1		Emissions: ns/year
5.	Method of Compliance (limit to 60 character Annual stack testing using EPA Method 1		Mod	lified Method	25A	,
6.	Allowable Emissions Comment (Desc. of Operation based to an aggregate limit of 2,000 hours	ı. Th	e emi	issions of this	s poll	utant are limited

Emissions Unit Information Section 5 Pollutant Detail Information Page 5	of <u>10</u> Comb. Turbine w/HRSG (CT 4A of 10
Allowable Emissions Allowable Emissions	of3
1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units 3 lb/hour	4. Equivalent Allowable Emissions: 3 lb/hour 13.14 tons/year
5. Method of Compliance (limit to 60 charact Annual stack testing using EPA Method	,
6. Allowable Emissions Comment (Desc. of C The information given in fields 3 and 4 a natural gas operation at 100% capacity	bove for lb/hr emission rate is reflective of
natural gas operation at 100% capacity	actor.
Allowable Emissions Allowable Emissions	
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code:	
Allowable Emissions Allowable Emissions	 3 of 3 2. Future Effective Date of Allowable Emissions:
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: Emissions limit required by rule 3. Requested Allowable Emissions and Units:	 3 of 3 2. Future Effective Date of Allowable Emissions: 4. Equivalent Allowable Emissions: lbs/hr 57 tons/year

Emissions Unit Information Section	5_	_ of	10	Comb. Turbine w/HRSG (CT 4A)
Pollutant Detail Information Page	<u>6</u>	of	<u>10</u>	

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

Otential/Fugitive Emissions

Potential/Fugitive Emissions					
1. Pollutant Emitted: CO	2. Total Percent Efficiency of Control:				
3. Potential Emissions: 105.8 lb/hour	871 tons/year 4. Synthetically Limited? [Yes]				
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	to tons/year				
6. Emission Factor: 105.8 lb/hr Reference: Permit derived	7. Emissions Method Code: 5				
8. Calculation of Emissions (limit to 600 characters): Not Applicable - Limited by PSD Permit.					
9. Pollutant Potential/Fugitive Emissions Comp Potential emission rates are based on oil for rate firing natural gas is 94.3 lb/hr at 40 d ambient temperatures may vary from the	iring (worst case). The allowable emission legrees F. Note that emissions at other				
Allowable Emissions	<u>1</u> of <u>3</u>				
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:				
3. Requested Allowable Emissions and Units: 105.8 lbs/hr	4. Equivalent Allowable Emissions: 105.8 lb/hour 105.8 tons/year				
5. Method of Compliance (limit to 60 character Annual stack testing using EPA Method 1					
6. Allowable Emissions Comment (Desc. of Operation Emissions based on distillate oil operation based to an aggregate limit of 2,000 hours	. The emissions of this pollutant are limited				

		of	<u>10</u>	_ Comb. Turbine w/HRSG (CT 4A)
Pollu	itant Detail Information Page <u>6</u> o	f	<u>10</u>	-
Alloy	wable Emissions Allowable Emissions	<u>2</u>	of_	3
1. B	lasis for Allowable Emissions Code: OTHER	2.		re Effective Date of Allowable ssions:
3. R	Requested Allowable Emissions and Units: 94.3 lb/hour	4.	_	ivalent Allowable Emissions: lb/hour 413.034 tons/year
	Method of Compliance (limit to 60 character annual stack testing using EPA Method 1	/		
Т	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab atural gas operation at 100% capacity fa	ove	for II	
Alloy	vable Emissions Allowable Emissions3	3	of_	3
	vable Emissions Allowable Emissions3 asis for Allowable Emissions Code: Emissions limit required by rule	,	Futu	re Effective Date of Allowable ssions:
1. B	asis for Allowable Emissions Code:	2.	Futu Emi	are Effective Date of Allowable
 B R M 	asis for Allowable Emissions Code: Emissions limit required by rule equested Allowable Emissions and Units:	2.	Futu Emi	re Effective Date of Allowable ssions:

Emissions Unit Information Section	<u>5</u>	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 4A)
Pollutant Detail Information Page	7	_ of _	10	

TO 4 4 2	(E) *4*	T
Potential/	'Fugitive	Emissions

Pol	tential/rugitive Emissions				
1.	Pollutant Emitted: SAM	2.	Tota	l Percent Effici	ency of Control:
	(Sulfuric Acid Mist)				
3.	Potential Emissions: 113 lb/hour		70	tons/year	4. Synthetically Limited? [Yes]
5.	Range of Estimated Fugitive Emissions:			to to	ons/year
6.	Emission Factor: 113 lb/hr			<u> </u>	7. Emissions Method Code:
	Reference: Permit derived				5
9.	8. Calculation of Emissions (limit to 600 characters): Not Applicable				
	synthetically limited based on Specific Co 146.	ndi	tion 5	, footnote a. of	Permit #PSD-FL-
All	owable Emissions Allowable Emissions	1	_ of _	_1	
1.	Basis for Allowable Emissions Code: OTHER	2.		are Effective Dissions:	ate of Allowable
3.	Requested Allowable Emissions and Units: Not Applicable	4.	Equ	ivalent Allowa Ib/hour to	ble Emissions: ns/year
5.	Method of Compliance (limit to 60 character Annual Operating Report	rs):			
6.	Allowable Emissions Comment (Desc. of Operation of Determined by BACT and tabulated for FPSD Permit PSD-FL-146, specific conditions	PSD	and i	•	-

Emissions Unit Information Section	5_	of	<u> 10</u>	Comb. Turbine w/HRSG (CT 4A	.)
Pollutant Detail Information Page	8	of_	10		

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1 0001111		ugitite		310113

<u>Po</u>	tential/Fugitive Emissions				
1.	Pollutant Emitted: Hg	2.	Total	Percent Effici	ency of Control:
	(Mercury Compounds)				
3.	Potential Emissions:				4. Synthetically
	0.021 lb/hour		0.034	tons/year	Limited? [Yes]
5.	Range of Estimated Fugitive Emissions:			to to	ons/year
6.	Emission Factor: 0.021 lb/hr				7. Emissions
	Reference: Permit derived				Method Code: 5
8.	8. Calculation of Emissions (limit to 600 characters): Not Applicable				
9.	 Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on gas firing. The emissions of this pollutant are synthetically limited based on Specific Condition 4, footnote a. of Permit #PSD-FL-146. (oil emission rate = 0.0052 lb/hr) 				
All	lowable Emissions Allowable Emissions	1	of	<u>l</u>	
1.	Basis for Allowable Emissions Code: OTHER	2.	Futur Emis		ate of Allowable
3.	Requested Allowable Emissions and Units:	4.	Equiv	alent Allowa	ble Emissions:
	Not Applicable		1	b/hour to	ns/year
5.	5. Method of Compliance (limit to 60 characters): Annual Operating Report				
6.	6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Determined by BACT and tabulated for PSD and inventory purposes as required by PSD Permit PSD-FL-146, specific condition No. 5.				

Emissions Unit Information Section	5	_ of	<u> 10</u>	Comb. Turbine w/HRSG (CT 4A)
Pollutant Detail Information Page	9	of	<u>10</u>	

Potential/	Fugitive	Emissions

Potential/Fugitive Emissions		
1. Pollutant Emitted: Be	2. Total Percent Effici	ency of Control:
(Beryllium Compounds)		
3. Potential Emissions: 0.004 lb/hour	0.004 tons/year	4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions:	to to	ons/year
6. Emission Factor: 0.004 lb/hr		7. Emissions
Reference: Permit derived		Method Code: 5
8. Calculation of Emissions (limit to 600 chara	icters):	, -
Not Applicable		
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 charac	otere).
Potential emission rates are based on oil	,	•
synthetically limited based on Specific Co 146.	ondition 4, footnote a. of	f Permit #PSD-FL-
140.		
Allowable Emissions Allowable Emissions	1 of1	
Basis for Allowable Emissions Code: OTHER	2. Future Effective D Emissions:	ate of Allowable
3. Requested Allowable Emissions and Units:	4. Equivalent Allowa	ble Emissions:
Not Applicable	lb/hour to	ns/year
5. Method of Compliance (limit to 60 characte Annual Operating Report	ers);	
6. Allowable Emissions Comment (Desc. of O		
Determined by BACT and tabulated for		poses as required by
PSD Permit PSD-FL-146, specific conditi	on 190. 5.	

Emissions Unit Information Section	5_	of	<u>10</u>	Comb. Turbine w/HRSG (CT 4A)
Pollutant Detail Information Page	10	_ of	10	- -

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential	l/Fugitive	Emissions

Total agree Emissions			
1. Pollutant Emitted: FI	2. Total Percent Efficiency of Control:		
(Fluorides Total)			
3. Potential Emissions: 0.055 lb/hour	0.055 tons/year 4. Synthetically Limited? [Yes]		
5. Range of Estimated Fugitive Emissions:	0.033 tolls/year Entitted: [1es]		
[] 1 [] 2 [] 3	totons/year		
6. Emission Factor: 0.055 lb/hr	7. Emissions		
Reference: Permit derived	Method Code: 5		
8. Calculation of Emissions (limit to 600 char	neters):		
Not Applicable			
·			
9. Pollutant Potential/Fugitive Emissions Con	ment (limit to 200 characters):		
Potential emission rates are based on oil	,		
are synthetically limited based on Specifi	•		
#PSD-FL-146.			
Allowable Emissions Allowable Emissions	<u>1</u> of <u>1</u>		
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:			
Not Applicable	lb/hour tons/year		
5. Method of Compliance (limit to 60 characte	ers):		
6. Allowable Emissions Comment (Desc. of C	perating Method) (limit to 200 characters):		
Determined by BACT and tabulated for	PSD and inventory purposes as required by		
PSD Permit PSD-FL-146, specific conditi	on No. 5.		

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 3 2. Basis for Allowable Opacity: 1. Visible Emissions Subtype: VE20] Rule [X] Other 3. Requested Allowable Opacity: 20 % Exceptional Conditions: Normal Conditions: % Maximum Period of Excess Opacity Allowed: min/hour 5. Method of Compliance: VE Test (EPA Method 9) 6. Visible Emissions Comment (limit to 200 characters): The allowable opacity limits listed above are applicable to operation on distillate oil only. Refer to Site Certification specific condition II.A.8 and PSD permit specific condition 8. <u>Visible Emissions Limitation:</u> Visible Emissions Limitation 2 of 3 2. Basis for Allowable Opacity: 1. Visible Emissions Subtype: **VE10** [X] Rule [] Other 3. Requested Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: 100 % 60 min/hour Maximum Period of Excess Opacity Allowed: 4. Method of Compliance: VE Test (EPA Method 9) 5. Visible Emissions Comment (limit to 200 characters): Allowable opacity limits above are applicable to operation on natural gas. Refer to Site Certification specific condition II.A.8 and PSD permit specific condition 8.

Emissions Unit Information Section5	of 10 Comb. Turb	ine w/HRSG (CT 4A)
Visible Emissions Limitation: Visible Emiss	sions Limitation <u>3</u> of	3
1. Visible Emissions Subtype:	2. Basis for Allowable	Opacity:
VE100	[X] Rule	[] Other
Requested Allowable Opacity: Normal Conditions: 100 % E Maximum Period of Excess Opacity Allow	exceptional Conditions:	% min/hour
4. Method of Compliance: VE Test (EPA Method 9)		,
5. Visible Emissions Comment (limit to 200 of DEP Rule 62-210.700(1) allows excess en shutdown and malfunctions.	,	hrs for startup,

Emissions Unit Information Section 5 o	\mathbf{f}	10	Comb. Turbine w/HRSG (CT 4A)
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I. CONTINUOUS MONITOR INFORMATION (Only Regulated Emissions Units Subject to Continuous Monitoring)

<u>Continuous Monitoring System:</u> Continuous	Monitor <u>1</u> of <u>1</u>
1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement:	[X] Rule [] Other
4. Monitor Information Manufacturer: : NOx = TECO Model Number: NOx = 42 Serial Number: NOx = 42D-49810-284	CO_2 = Milton Roy CO_2 = 3300 CO_2 = N4CO309T
5. Installation Date: 12/09/1994	6. Performance Specification Test Date: 12/28/94
7. Continuous Monitor Comment (limit to 200 This emission unit is classified as a "gas f therefore not required to monitor opacity	ired" under the 40 CFR 75 definitions and

Emissions Unit Information Section 5 of 10 Comb. Turbine w/HRSG (CT 4A)

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

Supplemental Requirements

1.	Process Flow Diagram
	[X] Attached, Document ID: PMRU3-1.jpg [] Not Applicable [] Waiver Requested
2.	Fuel Analysis or Specification
	[X] Attached, Document ID: PMRU3 -2.txt [] Not Applicable [] Waiver
3.	Detailed Description of Control Equipment
	[X] Attached, Document ID: PMRU3 -3.txt [] Not Applicable [] Waiver
4.	Description of Stack Sampling Facilities
	[X] Attached, Document ID: PMRU3-4.jpg [] Not Applicable [] Waiver Requested
5.	Compliance Test Report
	[] Attached, Document ID:
	[] Previously submitted, Date:
	[X] Not Applicable
6.	Procedures for Startup and Shutdown
	[X] Attached, Document ID PMRU3-6.txt
	[] Not Applicable [] Waiver Requested
7.	Operation and Maintenance Plan
	[] Attached, Document ID: [X] Not Applicable [] Waiver Requested
8.	Supplemental Information for Construction Permit Application
	[] Attached, Document ID: [X] Not Applicable
9.	Other Information Required by Rule or Statute
	[] Attached, Document ID: [X] Not Applicable
10	. Supplemental Requirements Comment:

Emissions Unit Information Section 5 of 10 Comb. Turbine w/HRSG (C	(CT 4 <i>I</i>	ŀΑ
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Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[X] Attached, Document ID: PMRU3-11.txt [] Not Applicable
12. Alternative Modes of Operation (Emissions Trading)
[] Attached, Document ID: [X] Not Applicable
13. Identification of Additional Applicable Requirements
[] Attached, Document ID: [X] Not Applicable
(Note: Refer to Title V permit 0850001-008-AV.)
14. Compliance Assurance Monitoring Plan
[] Attached, Document ID: [X] Not Applicable
(Note: Refer to Attachment PMRCAM.)
15. Acid Rain Part Application (Hard-copy Required)
[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: PMREU1-15
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:
[] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:
[] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:
[] Not Applicable

Emissions Unit Information Section 6 of 10 Comb. Turbine w/HRSG (CT

III. EMISSIONS UNIT INFORMATION

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

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)					
[X] 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. Regulated or Unregulated Emissions Unit? (Check one)					
[X] 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.					
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):					
Combustion Turbine with Heat Recovery Steam Generator (HRSG) CT 4B					
4. Emissions Unit Identification Number: No ID					
ID: 03 [] ID Unk	nown				
5. Emissions Unit Status Code: Date: Group SIC Code: Y] A 04/15/94 7. Emissions Unit Major SIC Code: Y]	n Unit?				
6. Emissions Unit Comment: (Limit to 500 Characters)					
Each combined cycle unit consists of two combustion turbines with each unit fir					
a Heat Recovery Steam Generator (HRSG). Each combustion turbine is connec	ted to				
an electrical generator. Waste heat recovered in the HRSG's is sent to a steam turbine- generator for production of additional electric power. Generator nameplate rating is					
given for the CT-coupled generator only.					

<u>En</u>	Emissions Unit Control Equipment				
1.	. Control Equipment/Method Description (Limit to 200 characters per device or method):				
	Dry Low- NO_X Combustors for Natural Gas combustion and steam injection for distillate oil combustion.				
2.	Control Device or Method Code(s):	025			
<u>En</u>	nissions Unit Details				
1.	Package Unit: Manufacturer: GE	Model N	lumber: MS7	001 E A	
2.		204	MW	OUTFA	
3.	Incinerator Information:				
	Dwell Temperatu Dwell Tir			°F second	2
	Incinerator Afterburner Temperatu			°F	· ·

Emissions Unit Information Section 6 of 10 Comb. Turbine w/HRSG (CT 4B)

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

Emissions Unit Operating Capacity and Schedule

1.	Maximum Heat Input Rate:	1,966	mmBtu/hr		
2.	Maximum Incineration Rate:		lb/hr		tons/day
3.	Maximum Process or Throughpu	it Rate:			
4.	Maximum Production Rate:				
5.	Requested Maximum Operating	Schedule:			•
		hours/day			days/week
		weeks/year		8,760	hours/year
	Maximum Heat Input (HI) Radeg. F. Max.; HI for dist. Oil = sampling and analysis. Operation of the calendar year.	1,846 mm	Btu. Complian	ce method	l for HI is fuel

Emissions Unit Information Section	6	o.f	10	Comb. Turbine w/HRSG (CT 4B	١
Emissions Unit Information Section	0	OI -	10	Comp. Turbine W/HRSG (C.L.4B	ı

List of Applicable Federal Regulations

40 CFR 72.9 (a) Acid Rain Permits	Permit requirements
40 CFR 72.9 (b), Acid Rain Permits	Monitoring Requirements
40 CFR 72.9 (c)(1), Acid Rain Permits	SO2 Allowance Requirements - Holding
40 CFR 72.9 (c)(2), Acid Rain Permits	SO2 Allowance - Excess Emissions Violations
40 CFR 72.9 (c)(3)(iii), Acid Rain Permits	SO2 Allowance - Phase II Unit applicability
40 CFR 72.9 (c)(4), Acid Rain Permits	SO2 Allowance Tracking System Accounts
40 CFR 72.9 (c)(5), Acid Rain Permits	SO2 Allowance Year of Use Requirement
40 CFR 72.9 (d), Acid Rain Permits	NOx Requirements
40 CFR 72.9 (e), Acid Rain Permits	Excess Emission Requirements & Offsets
40 CFR 72.9 (f), Acid Rain Permits	Recordkeeping and Reporting
40 CFR 72.9 (g), Acid Rain Permits	Liability and Civil Penalty
40 CFR 72.20 (a), Acid Rain Permits	Designated Representative Requirement
40 CFR 72.20 (b), Acid Rain Permits	Designated Representative Legal Binding
40 CFR 72.20 (c), Acid Rain Permits	Designated Representative Certification
40 CFR 72.21, Acid Rain Permits	Submissions by Designated Representative
40 CFR 72.22, Acid Rain Permits	Alternate Designated Representative Requirement
40 CFR 72.23, Acid Rain Permits	Changing Designated Representatives or Owners
40 CFR 72.24, Acid Rain Permits	Designated Representative Certificate of Representation
40 CFR 72.30 (a), Acid Rain Permits	Acid Rain Permit Duty to Apply

List of Applicable Federal Regulations

40 CFR 72.31, Acid Rain Permits 40 CFR 72.32, Acid Rain Permits 40 CFR 72.33 (b), Acid Rain Permits 40 CFR 72.33 (c), Acid Rain Permits 40 CFR 72.33 (c), Acid Rain Permits 40 CFR 72.33 (d), Acid Rain Permits 40 CFR 72.33 (d), Acid Rain Permits 40 CFR 72.30 (d), Acid Rain Permits 40 CFR 72.40, Acid Rain Permits 40 CFR 72.50, Acid Rain Permits 40 CFR 72.50, Acid Rain Permits 40 CFR 72.51, Acid Rain Permits 40 CFR 72.52, Acid Rain Permits 40 CFR 72.53, Acid Rain Permits 40 CFR 73.30, SO2 Allowance System 40 CFR 73.30, SO2 Allowance System 40 CFR 73.31, SO2 Allowance System 40 CFR 73.32, SO2 Allowance System 40 CFR 73.33, SO2 Allowance System 40 CFR 73.35 (a), SO2 Allowance System 40 CFR 73.35 (a), SO2 Allowance System 40 CFR 73.35 (b), SO2 Allowance System 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance		
prior to Permit Expiration Acid Rain Permit Submittal Requirements Acid Rain Permit Information Requirements Bermit Application Shield CFR 72.32, Acid Rain Permits Identification of Dispatch System CFR 72.33 (c), Acid Rain Permits Dispatch System Requirements Changing Dispatch System Identification Compliance Plan Application Requirements Compliance Plan Application Requirements CFR 72.50, Acid Rain Permits Compliance Plan Application Requirements CFR 72.51, Acid Rain Permits Permit Shield Annual Compliance Certification Allowance Tracking System Accounts CFR 73.30, SO2 Allowance System Allowance Account Contents Allowance Account Representative Compliance and Allowance Transfer Deadline Allowance Deductions for Compliance Allowance Deductions for Compliance	40 CFR 72.30 (b) (2), Acid Rain Permits	
40 CFR 72.31, Acid Rain Permits 40 CFR 72.32, Acid Rain Permits 40 CFR 72.33 (b), Acid Rain Permits 40 CFR 72.33 (b), Acid Rain Permits 40 CFR 72.33 (c), Acid Rain Permits 40 CFR 72.33 (d), Acid Rain Permits 40 CFR 72.33 (d), Acid Rain Permits 40 CFR 72.30 (d), Acid Rain Permits 40 CFR 72.40, Acid Rain Permits 40 CFR 72.50, Acid Rain Permits 40 CFR 72.51, Acid Rain Permits 40 CFR 72.51, Acid Rain Permits 40 CFR 72.90, Acid Rain Permits 40 CFR 73.30, SO2 Allowance System 40 CFR 73.31, SO2 Allowance System 40 CFR 73.32, SO2 Allowance System 40 CFR 73.33, SO2 Allowance System 40 CFR 73.35 (a), SO2 Allowance System 40 CFR 73.35 (b), SO2 Allowance System 40 CFR 73.35 (c), SO2 Allowance System 41 CFR 73.35 (c), SO2 Allowance System 42 CFR 73.35 (c), SO2 Allowance System 43 CFR 73.35 (c), SO2 Allowance System 44 CFR 73.35 (c), SO2 Allowance System 45 CFR 73.35 (c), SO2 Allowance System 46 CFR 73.35 (c), SO2 Allowance System 47 CFR 73.35 (c), SO2 Allowance System 48 CFR 73.35 (c), SO2 Allowance System 49 CFR 73.35 (c), SO2 Allowance System 40 CFR 73.35 (c), SO2 Allowance System	40 CFR 72.30 (c), Acid Rain Permits	1
Requirements 40 CFR 72.32, Acid Rain Permits Permit Application Shield 40 CFR 72.33 (b), Acid Rain Permits Identification of Dispatch System 40 CFR 72.33 (c), Acid Rain Permits Dispatch System Requirements Changing Dispatch System Identification Compliance Plan Application Requirements Compliance Plan Application Requirements Compliance Plan Application Requirements Compliance Plan Application Requirements Annual Compliance Certification Annual Compliance Certification Annual Compliance Certification CFR 72.90, Acid Rain Permits Annual Compliance Certification Allowance Tracking System Accounts CFR 73.30, SO2 Allowance System Allowance Account Contents AU CFR 73.32, SO2 Allowance System Authorized Account Representative Compliance and Allowance Transfer Deadline AU CFR 73.35 (a), SO2 Allowance System Allowance Deductions for Compliance AU CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.30 (d), Acid Rain Permits	Acid Rain Permit Submittal Requirements
40 CFR 72.33 (b), Acid Rain Permits Dispatch System Requirements Changing Dispatch System Identification CFR 72.33 (d), Acid Rain Permits Changing Dispatch System Identification CFR 72.40, Acid Rain Permits Compliance Plan Application Requirements Annual Compliance Certification Annual Compliance Certification Allowance Tracking System Accounts CFR 73.30, SO2 Allowance System Allowance Account Contents Authorized Account Representative Compliance and Allowance Transfer Deadline AU CFR 73.35 (a), SO2 Allowance System Allowance Deductions for Compliance AU CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.31, Acid Rain Permits	
40 CFR 72.33 (c), Acid Rain Permits Dispatch System Requirements 40 CFR 72.33 (d), Acid Rain Permits Changing Dispatch System Identification 40 CFR 72.40, Acid Rain Permits Compliance Plan Application Requirements 40 CFR 72.50, Acid Rain Permits General Permit Requirements 40 CFR 72.51, Acid Rain Permits Permit Shield 40 CFR 72.90, Acid Rain Permits Annual Compliance Certification 40 CFR 73.30, SO2 Allowance System Allowance Tracking System Accounts 40 CFR 73.31, SO2 Allowance System Establishment of Accounts 40 CFR 73.32, SO2 Allowance System Allowance Account Contents 40 CFR 73.35, (a), SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.32, Acid Rain Permits	Permit Application Shield
40 CFR 72.33 (d), Acid Rain Permits Compliance Plan Application Requirements 40 CFR 72.50, Acid Rain Permits Permit Shield 40 CFR 72.51, Acid Rain Permits Annual Compliance Certification 40 CFR 73.30, SO2 Allowance System Allowance Tracking System Accounts 40 CFR 73.31, SO2 Allowance System Establishment of Accounts 40 CFR 73.32, SO2 Allowance System Allowance Account Contents 40 CFR 73.33, SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (a), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.33 (b), Acid Rain Permits	Identification of Dispatch System
40 CFR 72.40, Acid Rain Permits Compliance Plan Application Requirements 40 CFR 72.50, Acid Rain Permits General Permit Requirements 40 CFR 72.51, Acid Rain Permits Permit Shield 40 CFR 72.90, Acid Rain Permits Annual Compliance Certification 40 CFR 73.30, SO2 Allowance System Allowance Tracking System Accounts 40 CFR 73.31, SO2 Allowance System Establishment of Accounts 40 CFR 73.32, SO2 Allowance System Allowance Account Contents 40 CFR 73.33, SO2 Allowance System Authorized Account Representative 40 CFR 73.35 (a), SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.33 (c), Acid Rain Permits	Dispatch System Requirements
Requirements 40 CFR 72.50, Acid Rain Permits General Permit Requirements 40 CFR 72.51, Acid Rain Permits Permit Shield 40 CFR 72.90, Acid Rain Permits Annual Compliance Certification 40 CFR 73.30, SO2 Allowance System Allowance Tracking System Accounts 40 CFR 73.31, SO2 Allowance System Establishment of Accounts 40 CFR 73.32, SO2 Allowance System Allowance Account Contents 40 CFR 73.33, SO2 Allowance System Authorized Account Representative 40 CFR 73.35 (a), SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.33 (d), Acid Rain Permits	Changing Dispatch System Identification
40 CFR 72.51, Acid Rain Permits 40 CFR 72.90, Acid Rain Permits Annual Compliance Certification 40 CFR 73.30, SO2 Allowance System Allowance Tracking System Accounts 40 CFR 73.31, SO2 Allowance System Establishment of Accounts 40 CFR 73.32, SO2 Allowance System Allowance Account Contents 40 CFR 73.33, SO2 Allowance System Authorized Account Representative 40 CFR 73.35 (a), SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.40, Acid Rain Permits	•
40 CFR 72.90, Acid Rain Permits Annual Compliance Certification 40 CFR 73.30, SO2 Allowance System Allowance Tracking System Accounts 40 CFR 73.31, SO2 Allowance System Establishment of Accounts 40 CFR 73.32, SO2 Allowance System Allowance Account Contents 40 CFR 73.33, SO2 Allowance System Authorized Account Representative 40 CFR 73.35 (a), SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.50, Acid Rain Permits	
40 CFR 73.30, SO2 Allowance System 40 CFR 73.31, SO2 Allowance System Establishment of Accounts 40 CFR 73.32, SO2 Allowance System Allowance Account Contents 40 CFR 73.33, SO2 Allowance System Authorized Account Representative 40 CFR 73.35 (a), SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.51, Acid Rain Permits	Permit Shield
40 CFR 73.31, SO2 Allowance System 40 CFR 73.32, SO2 Allowance System Allowance Account Contents 40 CFR 73.33, SO2 Allowance System Authorized Account Representative 40 CFR 73.35 (a), SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 72.90, Acid Rain Permits	Annual Compliance Certification
40 CFR 73.32, SO2 Allowance System Allowance Account Contents 40 CFR 73.33, SO2 Allowance System Authorized Account Representative Compliance and Allowance Transfer Deadline 40 CFR 73.35 (a), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 73.30, SO2 Allowance System	Allowance Tracking System Accounts
40 CFR 73.35 (a), SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (b), SO2 Allowance System Authorized Account Representative Compliance and Allowance Transfer Deadline Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 73.31, SO2 Allowance System	Establishment of Accounts
40 CFR 73.35 (a), SO2 Allowance System Compliance and Allowance Transfer Deadline 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 73.32, SO2 Allowance System	Allowance Account Contents
Deadline 40 CFR 73.35 (b), SO2 Allowance System Allowance Deductions for Compliance 40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 73.33, SO2 Allowance System	Authorized Account Representative
40 CFR 73.35 (c), SO2 Allowance System Identification of Allowances by Serial	40 CFR 73.35 (a), SO2 Allowance System	, -
	40 CFR 73.35 (b), SO2 Allowance System	Allowance Deductions for Compliance
	40 CFR 73.35 (c), SO2 Allowance System	1

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	Emissions Unit Information Section	6	of	10	Comb. Turbine w/HRSG (CT 4F
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List of Applicable Federal Regulations

40 CFR 73.35 (d), SO2 Allowance System	Deductions for Excess Emissions
40 CFR 75.4, CEMS	Compliance Dates
40 CFR 75.5, CEMS	Prohibitions
40 CFR 75.10 (a) (1), CEMS	Primary Measurement - SO2
40 CFR 75.10 (a) (2), CEMS	Primary Measurement - NOx
40 CFR 75.10 (a) (3) (i), CEMS	Primary Measurement - CO2 & O2 Monitor
40 CFR 75.10 (b), CEMS	Primary Equipment Performance Requirements
40 CFR 75.10 (c), CEMS	Heat Input Measurement Requirement
40 CFR 75.10 (f), CEMS	Minimum Measurement Capability
40 CFR 75.10 (g), CEMS	
40 CFR 75.11 (d), CEMS	SO2 Emission Monitoring Requirements for Gas-Fired Units
40 CFR 75.11 (e), CEMS	SO2 Emissions Monitoring Gas-Fired Units
40 CFR 75.12 (a), CEMS	NOx Monitoring
40 CFR 75.12 (b), CEMS	NOx Monitoring Moisture Correction
40 CFR 75.12 (c), CEMS	NOx Monitoring Determination of NOx Emission Rate - Appendix F
40 CFR 75.13 (b), CEMS	CO2 Emissions Monitoring Appendix G
40 CFR 75.13 (c), CEMS	CO2 Mass Emissions Monitoring Appendix F
40 CFR 75.14 (c), CEMS	Opacity Monitoring Gas Unit Exemption
40 CFR 75.20 (a), CEMS	Initial Certification & Loss of Certification

List of Applicable Federal Regulations

40 CFR 75.20 (b), CEMS	Recertification Approval Process
40 CFR 75.20 (c), CEMS	Certification Procedures
40 CFR 75.20 (d), CEMS	Certification and QA/QC for Backup Monitors
40 CFR 75.20 (f), CEMS	Certification of Alternative Monitoring Systems
40 CFR 75.21 (a), CEMS	CEMS QA/QC
40 CFR 75.21 (c), CEMS	Calibration Gasses for CEMS QA/QC
40 CFR 75.21 (d), CEMS	QA/QC RATA Periodic Notification
40 CFR 75.21 (e), CEMS	QA/QC Audit Consequences
40 CFR 75.22 , CEMS	Reference Test Methods
40 CFR 75.24 , CEMS	Out of Control Periods and Bias Adjustment
40 CFR 75.30 (a)(3), CEMS	NOx Missing Data Substitution Procedures
40 CFR 75.30 (a)(4), CEMS	SO2 Missing Data Substitution Procedures
40 CFR 75.30 (b), CEMS	Missing Data Substitution Procedures for Backup Monitors
40 CFR 75.30 (c), CEMS	Missing Data Substitution using Backup Monitors
40 CFR 75.30 (d), CEMS	SO2 Missing Data Substitution - Gas Units
40 CFR 75.31 , CEMS	Initial Missing Data Procedures
40 CFR 75.32 , CEMS	Monitoring Data Availability for Missing Data
40 CFR 75.33 , CEMS	Standard Missing Data Procedures
40 CFR 75.36 , CEMS	Missing Data for Heat Input
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List of Applicable Federal Regulations

40 CFR 75.40 , CEMS	Alternate Monitoring Systems General Demonstration Requirements
40 CFR 75.41 , CEMS	Alternate Monitoring Systems Precision Criteria
40 CFR 75.42 , CEMS	Alternate Monitoring Systems Reliability Criteria
40 CFR 75.43 , CEMS	Alternate Monitoring Systems Accessibility Criteria
40 CFR 75.44, CEMS	Alternate Monitoring Systems Timeliness Criteria
40 CFR 75.45 , CEMS	Alternate Monitoring Systems Daily QA
40 CFR 75.46 , CEMS	Alternate Monitoring Systems Missing Data Substitution Criteria
40 CFR 75.47 , CEMS	Alternate Monitoring Systems Criteria For a Class of Affected Unit
40 CFR 75.48 , CEMS	Petition for Alternate Monitoring Systems
40 CFR 75.53 , CEMS	Monitoring Plan
40 CFR 75.54 , CEMS	General Recordkeeping Provisions
40 CFR 75.55 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.55 (e) , CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.56 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.57 , CEMS	General Recordkeeping Provisions
40 CFR 75.58 (c), CEMS	Specific Recordkeeping Provisions - Fired units using SO2 Appendix D Gas
40 CFR 75.58 (e), CEMS	Specific Recordkeeping Provisions -SO2 for Gas Fired units
40 CFR 75.59 , CEMS	Certification, QA/QC record Provisions
40 CFR 75.60 , CEMS	General Reporting Requirements

List of Applicable Federal Regulations

eporting Requirements Notifications onitoring Plan Reporting Requirements ertification Reporting Requirements
ertification Reporting Requirements
crementon reporting requirements
uarterly Reports Submission
uarterly Reports Designated epresentative Statement
uarterly Reports Compliance
uarterly Reports Electronic Submittal
etitions to the Administrator (if required)
stallation and Measurement Locations
quipment Specifications
erformance Specifications
ata Handling and Acquisition Systems
alibration Gasses
ertification Tests and Procedures
alculations
A/QC Procedures
issing Data; SO2 & NOx for controlled urces
issing Data ; Load Based Procedure; Ox & Flow

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List of Applicable Federal Regulations

40 CFR Part 75 - Appendix D	Optional SO2 Emissions Protocol for Gas Fired Units
40 CFR Part 75 - Appendix F	Conversion Procedures
40 CFR Part 75 - Appendix G-2	Conversion Procedures
40 CFR Part 75 - Appendix G-4	Conversion Procedures
40 CFR Part 75 - Appendix H	Conversion Procedures
40 CFR 77.3, Excess Emissions	Future SO2 Offset Plans
40 CFR 77.5 (b), Excess Emissions	Future Deduction of SO2 Allowances for Excess SO2 Emissions
40 CFR 77.6, Excess Emissions	Future Penalties for Excess Emissions of SO2 and NOx
40 CFR 60.332(a)(1), Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.332(b) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.332(f) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.332(k) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.333(b) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.333(k) , Subpart GG	Nitrogen Oxide and Sulfur Standards
40 CFR 60.334(a), Subpart GG	Monitoring of water injection during firing of oil
40 CFR 60.334(b)(1), Subpart GG	Monitoring of operation during firing of oil, oil specifications
40 CFR 60.334(b)(2) , Subpart GG	Monitoring of operation during firing of natural gas, gas specifications
40 CFR 60.334(c)(1), Subpart GG	Monitoring of NOx emissions at load conditions during operation
40 CFR 60.335, Subpart GG	Custom Fuel Monitoring Schedule for Natural Gas

List of Applicable State Regulations

FAC 62-204.800(12) (State Only)	Acid Rain Program
FAC 62-204.800(13) (State Only)	Allowances
FAC 62-204.800(14) (State Only)	Acid Rain Program Monitoring
FAC 62-204.800(16) (State Only)	Excess Emissions
FAC 62-210.650, Stationary Sources	Circumvention; EU's with control device
FAC 62-210.700 (1), Stationary Sources	Excess Emissions
FAC 62-210.700 (4), Stationary Sources	Excess Emissions & Poor Maintenance
FAC 62-210.700 (6), Stationary Sources	Excess Emissions Notification
FAC 62-210.300, Acid Rain	Acid Rain Unit Applicability
FAC 62-210.320 (1)(a),(2) , Acid Rain	Acid Rain Unit Application Shield
FAC 62-210.330 (1)(a)1., Acid Rain	Acid Rain Unit Compliance Options
FAC 62-210.340 , Acid Rain	New and Retired Unit Exemptions
FAC 62-210.350(2);(3);(6) , Acid Rain	Acid Rain Unit Certification
FAC 62-210.370, Acid Rain	Acid Rain Unit Revisions & Corrections
FAC 62-210.430 , Acid Rain	Compliance Options for Acid Rain Units
FAC 62-296.320(4)(b),Stationary Units	CT & Diesel Unit (State Only)
FAC 62-297.310(1), Emiss. Monitoring	Test Runs - Mass Emissions
FAC 62-297.310(2)(b), Emiss. Monitoring	Operating Rate
FAC 62-297.310(3), Emiss. Monitoring	Calculation of Emissions
FAC 62-297.310(8), Emiss. Monitoring	Test Reports

Emissions Unit Information Section 6 of 10 Comb. Turbine w/HRSG (CT 4B)

List of Applicable State Regulations

FAC 62-297.310(4)(a), Emiss. Monitoring	Applicable Test Procedures , Sampling Time
FAC 62-297.310(4)(b), Emiss. Monitoring	Sample Volume
FAC 62-297.310(4)(c), Emiss. Monitoring	Required Low Rate Range-PM, H2SO4,F
FAC 62-297.310(4)(d), Emiss. Monitoring	Calibration
FAC 62-297.310(4)(e), Emiss. Monitoring	EPA Method 5 (applicable when combusting oil)
FAC 62-297.310(5), Emiss. Monitoring	Determination of Process Variables
FAC 62-297.310(6)(a), Emiss. Monitoring	Permanent Testing Facilities
FAC 62-297.310(6)(c), Emiss. Monitoring	Sampling Ports
FAC 62-297.310(6)(d), Emiss. Monitoring	Work Platforms
FAC 62-297.310(6)(e), Emiss. Monitoring	Access
FAC 62-297.310(6)(f), Emiss. Monitoring	Electrical Power Provisions
FAC 62-297.310(6)(g), Emiss. Monitoring	Equipment Support
FAC 62-297.310(7)(a)3, Emiss. Monitoring	Permit Renewal Test Requirement
FAC 62-297.310(7)(a)4b,Emiss. Monitoring	Annual Test Requirement
FAC 62-297.310(7)(a)5, Emiss. Monitoring	Exemption from PM Test if operation is less than 400 hrs on oil/distillate
FAC 62-297.310(7)(a)9, Emiss. Monitoring	FDEP Notification 15 days prior to tests
FAC 62-297.310(7)(c), Emiss. Monitoring	Waiver for Compliance Tests for Fuel Sampling

Emissions Unit Information Section 6 of 10 Comb. Turbine w/HRSG (CT 4B)

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

Emission Point Description and Type

Identification of Point on Pl Flow Diagram? See Figure		2. Emission Po	int Type Code: 1		
3. Descriptions of Emission Policy 100 characters per point):		g this Emissions (Unit for VE Tracking (limit to	
Unit exhaust through sing	ie stack				
4. ID Numbers or Description	s of Emission Ui	nits with this Emi	ssion Point in Commo	n:	
5. Discharge Type Code: V	6. Stack Heig	ht: 213.3 feet	7. Exit Diameter: 20	feet	
8. Exit Temperature: 280 °F		umetric Flow 420,307 acfm	10. Water Vapor:	%	
11. Maximum Dry Standard Flo	11. Maximum Dry Standard Flow Rate: dscfm 12. Nonstack Emission Point Height: feet				
13. Emission Point UTM Coord					
	ast (km): 543		h (km): 299261		
14. Emission Point Comment (imit to 200 char	acters):			
The Volumetric Flow Rate (VFR) given above is reflective of a 40 degree F ambient condition while firing oil. The VFR while firing nat. gas under the same condition is 2,352,904 acfm. The VFR while firing nat. gas in power aug. mode is 2,468,838 acfm.					

Emissions Unit Information	Section 6	of 10 Co	nmh.	Turbine w/HRSG (CT 4B)
Emissions out fulfillation	Section	01 <u>10</u> C	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Turbine williss (e. 113)
E. SEGN	MENT (PROCE (All Emi	SS/FUEL) INF ssions Units)	ORM	MATION
Segment Description and Ra	ite: Segment	<u>1</u> of <u>3</u>		
Segment Description (Proc Pipeline Natural Gas but	* * *	•	aracte	ers):
2. Source Classification Cod	e (SCC):	3. SCC Units		3 7
2-01-002-01 4. Maximum Hourly Rate:	5. Maximum A	Million Cu	_	Feet Estimated Annual Activity
1.87	16,381.		0.	Factor:
7. Maximum % Sulfur: 0.0031	8. Maximum	% Ash:	9.	Million Btu per SCC Unit: 1,050
10. Segment Comment (limit	to 200 characters):	•	
%S = [10gr of S/1000 CF gas	s] * [1 lb S/7000	gr] [CF gas/0.0)46 li	b gas]*100 = 0.0031%S
Segment Description and Ra	ite: Segment	2_of_3_		
Segment Description (Proc Light Distillate Oil burne	• • •	•	aract	ters):
2. Source Classification Cod	e (SCC):	3. SCC Unit	s:	
2-01-001-01	· · · · · · · · · · · · · · · · · · ·	Thousand		
4. Maximum Hourly Rate:	5. Maximum.	Annual Rate:	6.	Estimated Annual Activity

10. Segment Comment (limit to 200 characters):

Max. annual rate is for 2,000 hrs of operation on Dist. Oil, which is limited in the PSD permit (4.a) and the Site Certification for the 4 CT's of Units 3 & 4.

28,260

8. Maximum % Ash:

14.13

0.5

7. Maximum % Sulfur:

Factor:

% 9. Million Btu per SCC Unit:

130.66

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
1. Tonatant Emitted	Device Code	Device Code	Regulatory Code
PM	Device Code	Beries Code	EL EL
SO2			EL
NOx	025	028	EL
CO			EL
VOC			EL
PM10			EL
0.134	7		
SAM			NS
H114		-	NIC
П114			NS
FL	 - -		NS
l'L			145
H021			NS
		<u> </u>	
	<u> </u>	1	i

	of <u>10</u> Comb. Turl of <u>10</u>	oine w/HRSG (CT 4B)		
G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)				
Potential/Fugitive Emissions				
1. Pollutant Emitted: PM-10	2. Total Percent Efficient	ency of Control:		
3. Potential Emissions: 60.6lb/hour	100 tons/year	4. Synthetically Limited? [Yes]		
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	to to	ns/year		
6. Emission Factor: 60.6 lb/hr Reference: see comment below		7. Emissions Method Code: 0		
8. Calculation of Emissions (limit to 600 char. NA - limited by permit	acters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): The PSD permit and Site Certification use the same emission limit for PM and PM- 10, The hourly rate is for oil firing. The hourly rate for Nat. Gas is 18 lb/hr. Emissions are synth. limited based on PSD-FL-146.				
Allowable Emissions	<u>1</u> of <u>3</u>			
Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ite of Allowable		
 Requested Allowable Emissions and Units: 18 lb/hour 	4. Equivalent Allowate 18 lb/hour 78.8			
5. Method of Compliance (limit to 60 character Not required for Natural Gas firing	ers):			
6. Allowable Emissions Comment (Desc. of C The information given in fields 3 and 4 al				

natural gas operation at 100% capacity factor.

	of <u>10</u> Comb. Turbine w/HRSG (CT 4B of <u>10</u>
Allowable Emissions Allowable Emissions	<u>2</u> of <u>3</u>
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 60.6 lb/hour	4. Equivalent Allowable Emissions: 60.6 lb/hour 60.6 tons/year
5. Method of Compliance (limit to 60 characted DEP Rule 62-296.405(1)(e)2 only for firing	
1	bove for lb/hr emission rate is reflective of ts 3 & 4 are restricted to an aggregate limit
Allowable Emissions Allowable Emissions	3 of 3
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 100 tons/year	4. Equivalent Allowable Emissions: 100 tons/year
5. Method of Compliance (limit to 60 characte Annual Operating Report	ers):
6. Allowable Emissions Comment (Desc. of C The information given in fields 3 and 4 at 10 from all 4 CT's of Units 3 & 4.	perating Method) (limit to 200 characters): bove represents the annual tpy limit for PM-

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Emissions Unit Information Section	6	_ of	10	Comb. Turbine w/HRSG (CT 4B)
Pollutant Detail Information Page	2	of	<u>10</u>	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Potential/Fugitive Emissions

rotential/rugitive Emissions				
1. Pollutant Emitted: PM	2. Total Percent Efficie	ency of Control:		
3. Potential Emissions: 60.6 lb/hour	100 tons/year	4. Synthetically Limited? [Yes]		
5. Range of Estimated Fugitive Emissions:	to to	ns/year		
6. Emission Factor: 60.6 lb/mmBtu Reference: see comment below		7. Emissions Method Code: 0		
8: Calculation of Emissions (limit to 600 chara NA - limited by permit	acters):			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): The PSD permit and Site Certification use the same emission limit for PM and PM- 10, The hourly rate is for oil firing. The hourly rate for Nat. Gas is 18 lb/hr. Emissions are synth. limited based on PSD-FL-146.				
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>			
Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ite of Allowable		
3. Requested Allowable Emissions and Units: 18 lb/hour	4. Equivalent Allowal 18 lb/hour 78.8			
5. Method of Compliance (limit to 60 characte Not required for Natural Gas firing	rs):			
6. Allowable Emissions Comment (Desc. of O The information given in fields 3 and 4 at natural gas operation at 100% capacity fa	oove for lb/hr emission r			

	of <u>10</u> Comb. Turbine w/HRSG (CT 4B) of <u>10</u>
Allowable Emissions Allowable Emissions	<u>2</u> of <u>3</u>
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 60.6 lb/hour	4. Equivalent Allowable Emissions: 60.6 lb/hour 60.6 tons/year
5. Method of Compliance (limit to 60 character DEP Rule 62-296.405(1)(e)2 only for firing	•
	oove for lb/hr emission rate is reflective of s 3 & 4 are restricted to an aggregate limit
Allowable Emissions Allowable Emissions	3of3
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 100 tons/year	4. Equivalent Allowable Emissions: 100 tons/year
5. Method of Compliance (limit to 60 character Annual Operating Report	rs):
6. Allowable Emissions Comment (Desc. of Operation Grant The information given in fields 3 and 4 about 10 from all 4 CT's of Units 3 & 4.	perating Method) (limit to 200 characters): ove represents the annual tpy limit for PM-

Emissions Unit Information Section 6 0 Pollutant Detail Information Page 3 0		oine w/HRSG (CT 4B)			
G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -					
Emissions-Limited and Preconstruction Review Pollutants Only)					
Potential/Fugitive Emissions 1. Pollutant Emitted: SO2	2 Total Bassant Efficie	on a Control			
1. Pollutant Emitted: SO2	2. Total Percent Efficie	ency of Control:			
3. Potential Emissions:		4. Synthetically			
920 lb/hour	568 tons/year	Limited? [Yes]			
5. Range of Estimated Fugitive Emissions:	40 40				
[] 1 [] 2 [] 3 6. Emission Factor: 0.5 % Sulfur in Fuel	to to	ns/year 7. Emissions			
Reference: see comment		Method Code:			
 Calculation of Emissions (limit to 600 characters): Not Applicable – Permit limit on % Sulfur in Fuel Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Sulfur content of distillate oil is limited to 0.5% max. and 0.3% annual average by the PSD permit. Oil firing in CT's of Units 3 & 4 are restricted to an aggregate limit of 2,000 hours per year for dist. oil firing. 					
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code:	of 3 2. Future Effective Da	to of Allowable			
OTHER	Emissions:	ile of Allowable			
 Requested Allowable Emissions and Units: 920 lbs/hr 	4. Equivalent Allowab 920 lb/hour 5	ole Emissions: 68 tons/year			
5. Method of Compliance (limit to 60 characters): Fuel Specifications and vendor sampling and analysis of distillate oil					
6. Allowable Emissions Comment (Desc. of Op Emissions based on distillate oil operation. Th synthetically limited based on Specific Condit	ie emissions of this poll	utant are			

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			10 Comb. Turbine w/HRSG (CT 4B	
Po	ollutant Detail Information Page 3 o	f	10	
<u>A</u>	llowable Emissions Allowable Emissions	2	of <u>3</u>	
1.	Basis for Allowable Emissions Code: OTHER	2.	. Future Effective Date of Allowable Emissions:	
3.	Requested Allowable Emissions and Units: 91.5 lb/hour	4.	. Equivalent Allowable Emissions: 91.5 lb/hour 400.77 tons/year	
5.	Method of Compliance (limit to 60 character ASTM Methods D 1072-80, D 3031-87, D-	•		
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The information given in fields 3 and 4 above for lb/hr emission rate is reflective of natural gas operation at 100% capacity factor.				
Al	llowable Emissions Allowable Emissions	3	_ of _ <u>3</u>	
	Basis for Allowable Emissions OTHER		_ of3 Future Effective Date of Allowable Emissions:	
1.	Basis for Allowable Emissions Code:	2.	. Future Effective Date of Allowable	
3.	Basis for Allowable Emissions Code: OTHER Requested Allowable Emissions and Units: 568 tons/year	2.	 Future Effective Date of Allowable Emissions: Equivalent Allowable Emissions: 568 tons/year 	

Emissions Unit Information Section	<u>6</u>	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 4B)
Pollutant Detail Information Page	4	of	10	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Potential/Fugitive Emissions	
1. Pollutant Emitted: NO _X	2. Total Percent Efficiency of Control:
3. Potential Emissions: 461 lb/hour	3,108 tons/year 4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	to tons/year
6. Emission Factor: 461 lb/hr	7. Emissions
Reference: Permit derived	Method Code: 5
8. Calculation of Emissions (limit to 600 chara Not Applicable - Limited by PSD Permit.	· · · · · · · · · · · · · · · · · · ·
Not Applicable - Elimited by 13D Telling.	
·	
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 characters):
Potential emission rates are based on oil f	iring (worst case). The allowable emission
rate firing natural gas is 177 lb/hr at 40 d ambient temperatures may vary from the	
unional temperatures may vary from the	se values.
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
OTHER	Emissions:
3. Requested Allowable Emissions and Units: 461 lbs/hr	4. Equivalent Allowable Emissions:
	461 lb/hour 3,108 tons/year
5. Method of Compliance (limit to 60 characte	,
Annual stack testing using EPA Method 2	20 or Modified Method 7E
6. Allowable Emissions Comment (Desc. of O	perating Method) (limit to 200 characters):
l ·	1. The emissions of this pollutant are limited
based to an aggregate limit of 2,000 hours	

	of <u>10</u> Comb. Turbine w/HRSG (CT 4B)			
Allowable Emissions Allowable Emissions				
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:			
3. Requested Allowable Emissions and Units: 177 lb/hour	4. Equivalent Allowable Emissions: 177 lb/hour 775.26 tons/year			
5. Method of Compliance (limit to 60 character Annual stack testing using EPA Method 2	, ·			
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): The information given in fields 3 and 4 above for lb/hr emission rate is reflective of natural gas operation at 100% capacity factor.				
Allowable Emissions 3 of 3				
Basis for Allowable Emissions Code: Emissions limit required by rule	2. Future Effective Date of Allowable Emissions:			
3. Requested Allowable Emissions and Units: 3018 tons/year	4. Equivalent Allowable Emissions: lbs/hr 3018 tons/year			
 Method of Compliance (limit to 60 character Annual Operating Report 	s):			
	ocrating Method) (limit to 200 characters): ove represents the annual tpy limit for NO _X value given in field 4 represents emissions			

Emissions Unit Information Section	6	_ of	10	Comb. Turbine w/HRSG (CT 4B)
Pollutant Detail Information Page	<u>5</u>	of	<u>10</u>	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Potential/Fugitive Emissions	
1. Pollutant Emitted: VOC's	2. Total Percent Efficiency of Control:
3. Potential Emissions: 11 lb/hour	57 tons/year 4. Synthetically Limited? [Yes]
5. Range of Estimated Fugitive Emissions:	to tons/year
6. Emission Factor: 11 lb/hr Reference: Permit derived	7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 chars Not Applicable - Limited by PSD Permit.	
·	
	iring (worst case). The allowable emission rees F. Note that emissions at other ambient
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 11 lbs/hr	4. Equivalent Allowable Emissions: 11 lb/hour 11 tons/year
5. Method of Compliance (limit to 60 character Annual stack testing using EPA Method	
6. Allowable Emissions Comment (Desc. of C Emissions based on distillate oil operation. T based to an aggregate limit of 2,000 hours pe	he emissions of this pollutant are limited

	of <u>10</u> Comb. Turbine w/HRSG (CT 4B
Allowable Emissions Allowable Emissions	
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 3 lb/hour	4. Equivalent Allowable Emissions:3 lb/hour 13.14 tons/year
5. Method of Compliance (limit to 60 characte Annual stack testing using EPA Method 1	•
6. Allowable Emissions Comment (Desc. of O The information given in fields 3 and 4 al natural gas operation at 100% capacity fa	pove for lb/hr emission rate is reflective of
Allowable Emissions Allowable Emissions	<u>3</u> of <u>3</u>
Basis for Allowable Emissions Code: Emissions limit required by rule	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 57 tons/year	4. Equivalent Allowable Emissions: lbs/hr 57 tons/year
5. Method of Compliance (limit to 60 characte Annual Operating Report	rs):
6. Allowable Emissions Comment (Desc. of O The information given in fields 3 and 4 at VOC for this emission unit. In addition, t emissions from 4 combustion turbines.	pove represents the annual tpy limit for

Emissions Unit Information Section	6	of	<u>10</u>	Comb. Turbine w/HRSG (CT 4B)
Pollutant Detail Information Page	6	_ _of_	10	,

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

D - 4	- 42 - 1 /T	3	173 *	•
Poter	11121/1	ugitive	· Emic	CIANC
<u> </u>	I CLEAN I	ug itivo		210112

1. Pollutant Emitted: CO 2. Total Percent Efficiency of Control: 3. Potential Emissions:	Potential Emissions: 105.8 lb/hour Range of Estimated Fugitive Emission	
105.8 lb/hour 871 tons/year Limited? [Yes] 5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 to	105.8 lb/hour 5. Range of Estimated Fugitive Emissio	4. Synthetically
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 to tons/year 6. Emission Factor: 105.8 lb/hr Reference: Permit derived 7. Emissions Method Code: 5 8. Calculation of Emissions (limit to 600 characters): Not Applicable - Limited by PSD Permit. 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	5. Range of Estimated Fugitive Emissio	
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 to tons/year 6. Emission Factor: 105.8 lb/hr Reference: Permit derived 7. Emissions Method Code: 5 8. Calculation of Emissions (limit to 600 characters): Not Applicable - Limited by PSD Permit. 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	1	871 tons/year Limited? [Yes]
[] 1 [] 2 [] 3 to tons/year 6. Emission Factor: 105.8 lb/hr Reference: Permit derived 7. Emissions Method Code: 5 8. Calculation of Emissions (limit to 600 characters): Not Applicable - Limited by PSD Permit. 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	1	
Reference: Permit derived 8. Calculation of Emissions (limit to 600 characters): Not Applicable - Limited by PSD Permit. 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	[][[]2 [
8. Calculation of Emissions (limit to 600 characters): Not Applicable - Limited by PSD Permit. 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	6. Emission Factor: 105.8 lb/hr	
8. Calculation of Emissions (limit to 600 characters): Not Applicable - Limited by PSD Permit. 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	Reference: Darmit dariyad	Method Code:
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	Reference. Fer init derived	5
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	8. Calculation of Emissions (limit to 60	0 characters):
Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	Not Applicable - Limited by PSD P	ermit.
Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.		
Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.		
Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.		
Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.		
Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.		
Potential emission rates are based on oil firing (worst case). The allowable emission rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.		
rate firing natural gas is 94.3 lb/hr at 40 degrees F. Note that emissions at other ambient temperatures may vary from these values.	9. Pollutant Potential/Fugitive Emission	s Comment (limit to 200 characters):
ambient temperatures may vary from these values.		
	Potential emission rates are based of	
Allowable Emissions Allowable Emissions 1 of 3		on oil firing (worst case). The allowable emission
Allowable Emissions 1 of 3	rate firing natural gas is 94.3 lb/hr	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other
	rate firing natural gas is 94.3 lb/hr	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other
Basis for Allowable Emissions Code: Description escription Description Description Description Description Description Description Description Description Description Description Description Description Description Desc	rate firing natural gas is 94.3 lb/hr ambient temperatures may vary fro	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values.
	rate firing natural gas is 94.3 lb/hr ambient temperatures may vary from Allowable Emissions Allowable Emissions Code:	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable
	rate firing natural gas is 94.3 lb/hr ambient temperatures may vary from Allowable Emissions Allowable Emissions Code: OTHER	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable Emissions:
105.8 lb/hour 105.8 tons/year	rate firing natural gas is 94.3 lb/hr ambient temperatures may vary from Allowable Emissions Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and Incomplete Emissions and Incompl	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable Emissions:
5. Method of Compliance (limit to 60 characters):	rate firing natural gas is 94.3 lb/hr ambient temperatures may vary from Allowable Emissions Allowable Emissions Code: OTHER	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable Emissions: Units: 4. Equivalent Allowable Emissions:
Annual stack testing using EPA Method 10	rate firing natural gas is 94.3 lb/hr ambient temperatures may vary from Allowable Emissions Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and 105.8 lbs/hr	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable Emissions: Units: 4. Equivalent Allowable Emissions: 105.8 lb/hour 105.8 tons/year
	Allowable Emissions Allowable Emissi 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and 105.8 lbs/hr 5. Method of Compliance (limit to 60 ch	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable Emissions: Units: 4. Equivalent Allowable Emissions: 105.8 lb/hour 105.8 tons/year
	Allowable Emissions Allowable Emissi 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and 105.8 lbs/hr 5. Method of Compliance (limit to 60 ch	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable Emissions: Units: 4. Equivalent Allowable Emissions: 105.8 lb/hour 105.8 tons/year
6 Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	Allowable Emissions Allowable Emissi 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and 105.8 lbs/hr 5. Method of Compliance (limit to 60 ch Annual stack testing using EPA Method)	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable Emissions: Units: 4. Equivalent Allowable Emissions: 105.8 lb/hour 105.8 tons/year maracters): ethod 10
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Emissions based on distillate oil operation. The amissions of this pollutant are limited.	Allowable Emissions Allowable Emissi 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and 105.8 lbs/hr 5. Method of Compliance (limit to 60 ch Annual stack testing using EPA Method of Compliance Comment (Description).	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable Emissions: Units: 4. Equivalent Allowable Emissions: 105.8 lb/hour 105.8 tons/year haracters): ethod 10 c. of Operating Method) (limit to 200 characters):
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Emissions based on distillate oil operation. The emissions of this pollutant are limited based to an aggregate limit of 2,000 hours per year for distillate oil operation.	Allowable Emissions Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and 105.8 lbs/hr 5. Method of Compliance (limit to 60 ch Annual stack testing using EPA Method of Compliance Compliance (Descentise of the Emissions based on distillate oil operations).	on oil firing (worst case). The allowable emission at 40 degrees F. Note that emissions at other om these values. ons 1 of 3 2. Future Effective Date of Allowable Emissions: Units: 4. Equivalent Allowable Emissions: 105.8 lb/hour 105.8 tons/year maracters): ethod 10 c. of Operating Method) (limit to 200 characters): ion. The emissions of this pollutant are limited

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			10 10	_ Comb. Turbine w/HRSG (CT 4B
<u>Al</u>	lowable Emissions Allowable Emissions	2	_of	<u>3</u>
1.	Basis for Allowable Emissions Code: OTHER	2.		re Effective Date of Allowable ssions:
3.	Requested Allowable Emissions and Units: 94.3 lb/hour	4.	_	valent Allowable Emissions: lb/hour 413.034 tons/year
5.	Method of Compliance (limit to 60 character Annual stack testing using EPA Method 1			-
6.	Allowable Emissions Comment (Desc. of Op The information given in fields 3 and 4 ab natural gas operation at 100% capacity fa	ove	for lb	ethod) (limit to 200 characters): /hr emission rate is reflective of
	natural gas operation at 100 /6 capacity la		·•	
All	lowable Emissions Allowable Emissions _ 3			3
<u>Al</u> l		3	of	re Effective Date of Allowable sions:
1.	lowable Emissions Allowable Emissions 3 Basis for Allowable Emissions Code:	2.	of Futu Emis	re Effective Date of Allowable
3.	Basis for Allowable Emissions3 Basis for Allowable Emissions Code: Emissions limit required by rule Requested Allowable Emissions and Units:	2.	of Futu Emis	re Effective Date of Allowable sions:

Emissions Unit Information Section	<u>6</u>	_ of	10	Comb. Turbine w/HRSG (CT 4B
Pollutant Detail Information Page	<u> 7</u>	of	10	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Potential/Fi	ugitive l	Emissions

1 otential Fugitive Ellissions				
Pollutant Emitted: SAM	2. Total Percent Efficiency of Control:			
(Sulfuric Acid Mist)				
3. Potential Emissions: 113 lb/hour	70 tons/year 4. Synthetically Limited? [Yes]			
5. Range of Estimated Fugitive Emissions:	to tons/year			
6. Emission Factor: 113 lb/hr	7. Emissions Method Code:			
Reference: Permit derived	5			
8. Calculation of Emissions (limit to 600 chara Not Applicable				
 Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing. The emissions of this pollutant are synthetically limited based on Specific Condition 5, footnote a. of Permit #PSD-FL-146. 				
Allowable Emissions Allowable Emissions	<u>l</u> of <u>1</u>			
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:			
3. Requested Allowable Emissions and Units: NA	4. Equivalent Allowable Emissions: lb/hour tons/year			
5. Method of Compliance (limit to 60 character Annual Operating Report	s):			
6. Allowable Emissions Comment (Desc. of Op Determined by BACT and tabulated for P PSD Permit PSD-FL-146, specific condition	SD and inventory purposes as required by			

Emissions Unit Information Section	6	_ of	<u>10</u>	Comb. Turbine w/HRSG (CT 4B)
Pollutant Detail Information Page	8	_ of _	<u>10</u>	-

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

	tential/Fugitive Emissions		
1.	Pollutant Emitted: Hg	2. Total Percent Efficie	ency of Control:
	(Mercury Compounds)		
3.	Potential Emissions:		4. Synthetically
	0.021 lb/hour	0.034 tons/year	Limited? [Yes]
5.	Range of Estimated Fugitive Emissions:	to to	ns/year
6.	Emission Factor: 0.021 lb/hr	to to	7. Emissions
0.			Method Code:
	Reference: Permit derived		5
8.	Calculation of Emissions (limit to 600 chara	icters):	
	Not Applicable		
•			
	Pollotest Patential/Position Foring Com-		
9.	Pollutant Potential/Fugitive Emissions Com Potential emission rates are based on gas	•	•
	synthetically limited based on Specific Co	•	_
	146. (oil emission rate = 0.0052 lb/hr)	······································	
Al	lowable Emissions Allowable Emissions	<u>1</u> of <u>1</u>	
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ate of Allowable
<u> </u>			
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowai	ole Emissions:
3.	Requested Allowable Emissions and Units: NA	-	
	NA	lb/hour tor	ole Emissions: ns/year
	NA Method of Compliance (limit to 60 characte	lb/hour tor	
	NA	lb/hour tor	
5.	NA Method of Compliance (limit to 60 characte Annual Operating Report	lb/hour tor	ns/year
5.	NA Method of Compliance (limit to 60 characte Annual Operating Report Allowable Emissions Comment (Desc. of O	lb/hour tor rs): perating Method) (limit to	ns/year o 200 characters):
5.	NA Method of Compliance (limit to 60 characte Annual Operating Report	lb/hour tor rs): perating Method) (limit to the second inventory purposes)	ns/year o 200 characters):
5.	NA Method of Compliance (limit to 60 characte Annual Operating Report Allowable Emissions Comment (Desc. of O Determined by BACT and tabulated for I	lb/hour tor rs): perating Method) (limit to the second inventory purposes)	ns/year o 200 characters):

		of <u>10</u> f <u>10</u>	.Comb. Turt	oine w/HRSG (CT 4B)		
	G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -					
	Emissions-Limited and Preconstruction Review Pollutants Only)					
<u>Po</u>	tential/Fugitive Emissions					
1.	Pollutant Emitted: Be	2. Total	Percent Efficie	ency of Control:		
	(Beryllium Compounds)					
3.	Potential Emissions: 0.004 lb/hour	0.004	tons/year	4. Synthetically Limited? [Yes]		
5.	Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3		_toto	ns/year		
6.	Emission Factor: 0.004 lb/hr			7. Emissions		
	Reference: Permit derived	•		Method Code: 5		
	Calculation of Emissions (limit to 600 characters) Not Applicable	·	,			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Potential emission rates are based on oil firing. The emissions of this pollutant are synthetically limited based on Specific Condition 4, footnote a. of Permit #PSD-FL-146.						
All	owable Emissions Allowable Emissions 1	1of	1			
1.	Basis for Allowable Emissions Code: OTHER		e Effective Da	ate of Allowable		
3.	Requested Allowable Emissions and Units: NA	1		ole Emissions:		
5.	Method of Compliance (limit to 60 character Annual Operating Report	rs):				

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

Determined by BACT and tabulated for PSD and inventory purposes as required by

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PSD Permit PSD-FL-146, specific condition No.5

Emissions Unit Information Section	· 6	of	10	Comb. Turbine w/HRSG (CT 4B)
Pollutant Detail Information Page	10	of	10	_

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

<u>Po</u>	tential/Fugitive Emissions		
1.	Pollutant Emitted: Fl	2. Total Percent Efficie	ency of Control:
	(Fluorides Total)		
3.	Potential Emissions: 0.055 lb/hour	0.055 tons/year	4. Synthetically Limited? [Yes]
5.	Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3	toto	ns/year
6.	Emission Factor: 0.055 lb/hr		7. Emissions
	Reference: Permit derived		Method Code: 5
8.	Calculation of Emissions (limit to 600 chara Not Applicable	cters):	
9.	Pollutant Potential/Fugitive Emissions Componential emission rates are based on oil a synthetically limited based on Specific Co 146.	firing. The emissions of	this pollutant are
All	lowable Emissions Allowable Emissions	<u>1</u> of <u>1</u>	
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ate of Allowable
3.	Requested Allowable Emissions and Units: NA	4. Equivalent Allowal lb/hour ton	
5.	Method of Compliance (limit to 60 character	rs):	
6.	Allowable Emissions Comment (Desc. of Op Determined by BACT and tabulated for P PSD Permit PSD-FL-146, specific condition	SD and inventory purp	,

Emissions Unit Information Section	6_	of_	10	Comb. Turbine w/HRSG (CT 4B)
Pollutant Detail Information Page	10	_ of _	10	

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

Visi	ible Emissions Limitation: Visible Emissi	ons Limitation <u>1</u> of <u>3</u>	-				
1.	Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity [] Rule [X]					
3.	% min/hour						
4.	Method of Compliance: VE Test (EPA Method 9)						
	5. Visible Emissions Comment (limit to 200 characters): The allowable opacity limits listed above are applicable to operation on distillate oil only. Refer to Site Certification specific condition II.A.8 and PSD permit specific condition 8.						
Visi	ible Emissions Limitation: Visible Emissi	ons Limitation 2 of 3	-				
1. V	visible Emissions Subtype: VE10	2. Basis for Allowable Opacity [X] Rule [] (r: Other				
4.	Method of Compliance: VE Test (EPA Method 9)						
	Visible Emissions Comment (limit to 200 cl Allowable opacity limits above are applic Site Certification specific condition II.A.8	able to operation on natural ga					

Emissions Unit Info Pollutant Detail Info			10 10	_ Comb. Turb —	ine w/HRSG (CT 4B)
Visible Emissions L	imitation: Visible E	missions	Limita	ation <u>3</u> of	3
1. Visible Emissions VE100	Subtype:	2.		for Allowable (Rule	Opacity: [] Other
3. Requested Allow Normal Condition Maximum Period		-	otional	Conditions:	% min/hour
4. Method of Comp VI	liance: E Test (EPA Method	19)			
1	s Comment (limit to 2 0.700(1) allows exces alfunctions.		•		hrs for startup,

Emissions Unit Information Section	6	of_	10	Comb. Turbine w/HRSG (CT 4B)
Pollutant Detail Information Page	<u>10</u>	of	<u>10</u>	_

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

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: EM		2. Pollutant(s): NOx
3.	CMS Requirement:	[X] Rule [] Other
4.	Monitor Information	
	Manufacturer: : NOx = TECO	CO ₂ = Milton Roy
	Model Number: $NOx = 42$	$CO_2 = 3300$
	Serial Number: $NOx = 42D-49805-284$	$CO_2 = N4CO313T$
5.	Installation Date:	6. Performance Specification Test Date:
	12/09/1994	12/28/94
7.	Continuous Monitor Comment (limit to 200	characters):
	This emission unit is classified as a "gas f	ired" under the 40 CFR 75 definitions and
	therefore not required to monitor opacity	or SO_2 .

Emissions Unit Information Section	<u>6</u>	of_	10	Comb. Turbine w/HRSG (CT 4B)
Pollutant Detail Information Page	10	of	10	

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

Supplemental Requirements

-	
1.	Process Flow Diagram
	[X] Attached, Document ID: PMRU3-1.ipg [] Not Applicable [] Waiver Requested
2.	Fuel Analysis or Specification
	[X] Attached, Document ID: PMRU3 -2.txt [] Not Applicable [] Waiver
3.	Detailed Description of Control Equipment
	[X] Attached, Document ID: PMRU3 -3.txt [] Not Applicable [] Waiver
4.	Description of Stack Sampling Facilities
	[X] Attached, Document ID: PMRU3-4.jpg [] Not Applicable [] Waiver Requested
5.	Compliance Test Report
	[] Attached, Document ID:
	[] Previously submitted, Date:
	[X] Not Applicable
6.	Procedures for Startup and Shutdown
	[X] Attached, Document ID PMRU3-6.txt
	[] Not Applicable [] Waiver Requested
7.	Operation and Maintenance Plan
	[] Attached, Document ID: [X] Not Applicable [] Waiver Requested
8.	11
	[] Attached, Document ID: [X] Not Applicable
9.	Other Information Required by Rule or Statute
	[] Attached, Document ID: [X] Not Applicable
10.	Supplemental Requirements Comment:

Emissions Unit Information Section 6 of 10 Comb. Turbine w/HRSG (CT 4B) Pollutant Detail Information Page 10 of 10
Additional Supplemental Requirements for Title V Air Operation Permit Applications
11. Alternative Methods of Operation [X] Attached, Document ID: PMRU3-11.txt [] Not Applicable
Alternative Modes of Operation (Emissions Trading) [] Attached, Document ID: [X] Not Applicable
13. Identification of Additional Applicable Requirements [] Attached, Document ID: [X] Not Applicable (Note: Refer to Title V permit 0850001-008-AV.)
14. Compliance Assurance Monitoring Plan [] Attached, Document ID: [X] Not Applicable (Note: Refer to Attachment PMRCAM.)
15. Acid Rain Part Application (Hard-copy Required) [X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: PMREU1-15
[] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:
[] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:
[] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:
[] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:
[] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:
[] Not Applicable

Emissions	Unit In	nformation	Section	7	of	10	Auxiliary	Boile
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#### III. EMISSIONS UNIT INFORMATION

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

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

#### **Emissions Unit Description and Status**

	Joins Cuit Desc	errption and otatus					
1. 7	Type of Emission	s Unit Addressed in This	s Section: (Check one)				
[ X ]	process or prod		n addresses, as a single emis which produces one or more a on point (stack or vent).				
[ ]	process or prod		n addresses, as a single emis s which has at least one defi- gitive emissions.				
[ ]			n addresses, as a single emis s which produce fugitive em				
2. F	Regulated or Unr	egulated Emissions Unit	? (Check one)				
[ ]	The emissions uemissions unit.	unit addressed in this Em	tissions Unit Information Sec	ction is a regulated			
[ X ]	The emissions uemissions unit.	unit addressed in this Em	issions Unit Information Sec	ction is an unregulated			
	Description of En Auxiliary Boiler		in This Section (limit to 60 o	characters):			
[	Emissions Unit Id D: <b>07</b>	lentification Number:		[ ] No ID [ ] ID Unknown			
ł	5. Emissions Unit Startup Status Code: Date: Group SIC Code: [N] A 07/01/93 7. Emissions Unit Major Status Code: Group SIC Code: [N]						
A	9. Emissions Unit Comment: (Limit to 500 Characters)  Auxiliary Boiler provides steam to actuate steam seals on steam turbine components of  Combined Cycle Units 3 & 4. This unit is regulated under NSPS 40 CFR 60.4c, Subpart  Dc.						
-							

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En	Emissions Unit Control Equipment				
1.	Control Equipment/Method Descrip	tion (Limit to 200 characters per de	evice or method):		
İ					
2.	Control Device or Method Code(s):				
En	nissions Unit Details				
1.	_				
	Manufacturer: VAPOR	Model Number: 1TG-5905-VHK	<u> </u>		
2.	Generator Nameplate Rating:	MW			
3.	Incinerator Information:				
	Dwell Temperatu		°F		
	Dwell Tir Incinerator Afterburner Temperatu		seconds °F		
L	momerator Attendance Temperate		<u> </u>		

Emissions Unit Information Section _____7 of ____ 10 ___ Auxiliary Boiler

Emissions	Unit	Information	Section	7	of	10	Auxiliary Boiler
	CIII	imioi ination	Section		VΙ	ΙŪ	Auxilial y Dullel

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

### **Emissions Unit Operating Capacity and Schedule**

1.	Maximum Heat Input Rate:	16.3 mmBtw/hr		
2.	Maximum Incineration Rate:	lb/hr		tons/day
3.	Maximum Process or Throughpu	ıt Rate:		
4.	Maximum Production Rate:			
5.	Requested Maximum Operating	Schedule:		
		hours/day		days/week
		weeks/year	8760	hours/year
	The 16.3 mmBtu/hr heat input (14.8 MMBtu/hr) and the supe when steam from the Auxiliary	rheater (1.5 mmBtu/hr)		

#### **List of Applicable Federal Regulations**

40 CFR 60.42 c(d)	40 CFR 60.13(e)
40 CFR 60.42 c(g)	40 CFR 60.13(h)
40 CFR 60.42 c(h)(1)	40 CFR 60.7(b)
40 CFR 60.43 c(c)	40 CFR 60.7(f)
40 CFR 60.43 c(d)	40 CFR 60.8(c)
40 CFR 60.44 c	40 CFR 60.8(e)
40 CFR 60.44 c	40 CFR 60.8(f)
40 CFR 60.44 c(b)	
40 CFR 60.44 c(c)	
40 CFR 60.45 c	
40 CFR 60.46 c(e)	
40 CFR 60.48 c	
40 CFR 60.11	
40 CFR 60.12	
40 CFR 60.11(a)	
40 CFR 60.13(a)	
40 CFR 60.13(c)	
40 CFR 60.13(d)(1)	
40 CFR 60.13(d)(2)	

	Emissions	<b>Unit Information Sec</b>	tion 7	of	10	Auxiliary Boiler
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# C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

### **List of Applicable State Regulations**

F.A.C. 62-297.310(1)
F.A.C. 62-297.310(2)(b)
F.A.C. 62-297.310(4)(a)2
F.A.C. 62-297.310(5)
F.A.C. 62-297.310(7)(a)3
F.A.C. 62-297.310(7)(a)4a
F.A.C. 62-297.310(7)(a)9

#### Emissions Unit Information Section 7 of 10 Auxiliary Boiler

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

### **Emission Point Description and Type**

1.	Identification of Point on Pl Flow Diagram? EU-7.jpg	2. E	Emission Po	oint Type Code:	1			
3.	3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):							
	Unit exhaust through sing	le stack				_		
4.	ID Numbers or Descriptions			th this Emi	ssion Point in Co	mmor	<b>:</b>	
5.	Discharge Type Code: V	6. Stack Heig	ht: <b>60</b>	feet	7. Exit Diamete	er: 3.6	feet	
8.	Exit Temperature: 490 °F	9. Actual Vol Rate: 30	umetri <b>),536</b>	ic Flow acfm	10. Water Vapo	r:	%	
11. Maximum Dry Standard Flow Rate: dscfm  12. Nonstack Emission Point Height: feet								
13.	Emission Point UTM Coord	linates:	<u> </u>					
	Zone: 17 E	ast (km): 54319	93	Nort	h (km): <b>299267</b>	1		
14. Emission Point Comment (limit to 200 characters):								
ŧ	The auxiliary steam syster th of which are operated co ele start-up.			•	<del>-</del>			

Emissions	Unit	Information	Section	7	of	10	Auxiliary	y Boiler

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

	(All Elli	ssions onns,					
Segment Description and R	ate: Segment	<u>1</u> of <u>2</u>					
	1. Segment Description (Process/Fuel Type) (limit to 500 characters):  Natural gas burned in the auxiliary boiler.						
2. Source Classification Coc 1-02-006-01	le (SCC):	3. SCC Uni Million (		Feet Burned			
4. Maximum Hourly Rate: 0.016	5. Maximum 140.16	Annual Rate:	6.	Estimated Annual Activity Factor:			
7. Maximum % Sulfur: 0.0031	8. Maximum	% Ash:	9.	Million Btu per SCC Unit: 1000			
Hours of operation restr	10. Segment Comment (limit to 200 characters):  Hours of operation restricted to startup and shutdown of the combined cycle units and for periodic testing and maintenance.						
Segment Description and Rate: Segment 2 of 2							
Segment Description (Pro Distillate Oil burned in	• • •	•	haracte	ers):			
2. Source Classification Coc 1-01-005-01	le (SCC):	3. SCC Uni Thousan		llons Burned			
4. Maximum Hourly Rate: 0.125	5. Maximum 1,093	Annual Rate:	6.	Estimated Annual Activity Factor:			
7. Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit: 130.7			
10. Segment Comment (limit Hours of operation restrand for periodic testing	ricted to startup	and shutdowi	n of the	e combined cycle units			

	Emissions	Unit	Informati	on Section	7	of	10	Auxiliary	Boiler
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# F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control     Device Code	3. Secondary Control Device Code	Pollutant     Regulatory Code
NOx	2 51100 5500		EL
SO2			EL
	,		

<b>Emissions Unit Information Section</b>		_ of _	10	Auxiliary	Boiler
Pollutant Detail Information Page	<u> </u>	of_	2		

## G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

**Emissions-Limited and Preconstruction Review Pollutants Only)** 

Potential/Fugitive Emissions							
1. Pollutant Emitted: NOx	2. Total Percent Efficient	ency of Control:					
3. Potential Emissions: 4.88 lb/hour	21.37 tons/year	4. Synthetically Limited? [YES]					
5. Range of Estimated Fugitive Emissions:  [ ] 1 [ ] 2 [ ] 3	toto	ns/year					
6. Emission Factor: 0.3 lb/mmBtu Reference: PSD-FL-146		7. Emissions Method Code:					
8. Calculation of Emissions (limit to 600 chara 0.3 lb/mmBtu * 16.3 mmBtu/hr = 4.89 lb/4.89 lb/hr * 8760 hrs/yr / 2,000lb/ton = 21	hr						
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): The potential emissions numbers are for 8760 hours of operation. This emission unit is limited to operation during startup and shutdown only. Emissions include the auxiliary boiler and the auxiliary boiler superheater which are operated concurrently.							
Allowable Emissions	<u>1</u> of <u>1</u>						
1. Basis for Allowable Emissions Code: Required or assumed by permittee for other	2. Future Effective Da Emissions:	ate of Allowable					
3. Requested Allowable Emissions and Units: 0.3 lbs/mmBtu	1	ole Emissions: .4 tons/year					
<ol> <li>Method of Compliance (limit to 60 characters):</li> <li>None Required</li> </ol>							
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Information provided is for both natural gas and distillate oil operation.							

Emissions Unit Information Section	<u>7</u>	_ of	10	_ Auxiliary Boiler
Pollutant Detail Information Page	2	of	<u>2</u>	

### G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units -

**Emissions-Limited and Preconstruction Review Pollutants Only)** 

P	oten	tial	/Fug	itive	<b>Emissions</b>

Potential/Fugitive Emissions							
1. Pollutant Emitted: SO2	2. Total Percent Efficie	ency of Control:					
3. Potential Emissions:		4. Synthetically					
5.05 lb/hour	22.1 tons/year	Limited? [YES]					
5. Range of Estimated Fugitive Emissions:							
[]1 []2 []3	to to	ns/year					
6. Emission Factor: 0.31 lb/mmBtu (3% S)		10. Emissions					
Reference: PSD-FL-146		Method Code:  1					
11. Calculation of Emissions (limit to 600 characters):  0.31 lb/mmBtu * 16.3 mmBtu/hr = 5.05 lb/hr (oil)  5.05 lb/hr * 8760 hrs/yr / 2,000lb/ton = 22.1 tons/year (oil)  12. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  The potential emissions numbers are for 8760 hours of operation. This emission unit is limited to operation during startup and shutdown only. Emissions include the auxiliary boiler and the auxiliary boiler superheater which are operated concurrently.							
Allowable Emissions 1 of 1							
1. Basis for Allowable Emissions Code: Required or assumed by permittee for other	2. Future Effective Da Emissions:	ate of Allowable					
4. Requested Allowable Emissions and Units:	4. Equivalent Allowal	ole Emissions:					
3% S oil	5.05 lbs/hr 22	.1 tons/year					
5. Method of Compliance (limit to 60 characters): 12-month weighted average sulfur content							
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):  Information provided is for distillate oil operation.							

<b>Emissions</b>	Unit	Information	Section	7	of	10	Auxiliary	v Boilei
2311110010110	~	******	Section	<del></del>	•	_ <del>* 0</del>		, 20

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

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation 1 of 2 1. Visible Emissions Subtype: 2. Basis for Allowable Opacity: VE20 [X]Rule 1 Other 3. Requested Allowable Opacity: Normal Conditions: 27 % 20 % Exceptional Conditions: Maximum Period of Excess Opacity Allowed: 6 min/hour 4. Method of Compliance: EPA Method 9 5. Visible Emissions Comment (limit to 200 characters): Information provided for operation using distillate oil <u>Visible Emissions Limitation:</u> Visible Emissions Limitation 2 of 2 2. Basis for Allowable Opacity: 1. Visible Emissions Subtype: VE100 [X] Rule Other 3. Requested Allowable Opacity: Normal Conditions: 100 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: 100 min/hour 4. Method of Compliance: EPA Method 9 5. Visible Emissions Comment (limit to 200 characters): DEP Rule 62-210.700(1) allows excess emissions for up to 2 hrs / 24 hrs for startup, shutdown, and malfunction.

Emissions	Unit Informatio	n Section	7	οf	10	Auxiliary Boiler
E 11113310113	Chit thioi matio	II Section	,	UI	10	Auxilial y Dolle

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

Emissions	Unit	Information	Section	7	of	10	Auxiliary B	Soile

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

### **Supplemental Requirements**

١	1.	Process Flow Diagram
	••	[X] Attached, Document ID: PMRU7-1.jpg [ ] Not Applicable [ ] Waiver Requested
	2.	Fuel Analysis or Specification [X] Attached, Document ID: PMRU7-2.txt [ ] Not Applicable [ ] Waiver Requested
	3.	Detailed Description of Control Equipment  [ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
	4.	Description of Stack Sampling Facilities  [ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
ľ	5.	Compliance Test Report
l		[ ] Attached, Document ID:
l		[ ] Previously submitted, Date:
		[X] Not Applicable
Γ	6.	Procedures for Startup and Shutdown
		[X] Attached, Document ID PMRU7-6.txt [ ] Not Applicable [ ] Waiver Requested
ľ	7.	Operation and Maintenance Plan
		[ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
Ī	8.	Supplemental Information for Construction Permit Application
		[ ] Attached, Document ID: [X] Not Applicable
	9.	Other Information Required by Rule or Statute
		[ ] Attached, Document ID: [X] Not Applicable
	10.	Supplemental Requirements Comment:
L		

Emissions Unit Information Section 7 of 10 Auxiliary Bo	19910119 (11111-11111	oi manon Secuon	/	01	10	Auxiliary Boile
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### Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation	
[ ] Attached, Document ID PMRU7-11	[ ] Not Applicable [ ] Waiver Requested
12. Alternative Modes of Operation (Emissions	Trading)
[ ] Attached, Document ID:	
13. Identification of Additional Applicable Requi	
Attached, Document ID:	[X] Not Applicable [ ] Waiver Requested
14. Compliance Assurance Monitoring Plan	
[ ] Attached, Document ID:	[X] Not Applicable
15. Acid Rain Part Application (Hard-copy Requ	uired)
[ ] Acid Rain Part - Phase II (Form No. 62-	-210.900(1)(a))
Attached, Document ID:	
[ ] Repowering Extension Plan (Form No. Attached, Document ID:	62-210.900(1)(a)1.)
[ ] New Unit Exemption (Form No. 62-210 Attached, Document ID:	0.900(1)(a)2.)
[ ] Retired Unit Exemption (Form No. 62-7) Attached, Document ID:	210.900(1)(a)3.)
[ ] Phase II NOx Compliance Plan (Form N Attached, Document ID:	No. 62-210.900(1)(a)4.)
[ ] Phase NOx Averaging Plan (Form No. of Attached, Document ID:	62-210.900(1)(a)5.)
[X] Not Applicable	

Emissions	<b>Unit Information</b>	Section	8	of	10	Emergency	Diesel	Generator
	~	~~~	4,5	V-	10	Line Follo		O CHICK GOL

#### III. EMISSIONS UNIT INFORMATION

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

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

#### **Emissions Unit Description and Status**

Type of Emissions Unit Addressed in This Section: (Check one)						
[X] This Emissions Unit Information Section addresses, as a single emissions unit, a sing 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. Regulated or Unregulated Emissions Unit? (Check one)						
[X] 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.						
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):  Emergency Diesel Generator for EU 3 - 6						
4. Emissions Unit Identification Number: [ ] No ID ID: 09 [ ] ID Unkno	wn					
5. Emissions Unit Startup Status Code: Date: Group SIC Code: N ]  A 08/14/92 7. Emissions Unit Major Group SIC Code: N ]	Jnit?					
9. Emissions Unit Comment: (Limit to 500 Characters)  Gernerator Nameplate rating for this unit is 718kVA. The emission unit is address PSD Permit #PSD-FL-146	ed in					

. Control Equipment/Method Descr	iption (Lim	it to 200 charact	ters per device or method	):
Not Applicable				
·				
		٠		
. Control Device or Method Code(s	s):	····		
Emissions Unit Details				
1. Package Unit:			<del>_</del>	-
Manufacturer: Unknown	Model N	Number: Unkno	own	
2. Generator Nameplate Rating:	0.61	MW		
3. Incinerator Information:				
Dwell Temper			°F	
Dwell Incinerator Afterburner Temper			seconds °F	

Emissions Unit Information Section 8 of 10 Emergency Diesel Generator

Emissions Unit Information Section 8 of 10 Emergency Diesel Generator

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

#### **Emissions Unit Operating Capacity and Schedule**

1.	Maximum Heat Input Rate:	5.55 mmBtu/hr			
2.	Maximum Incineration Rate:	lb/hr		tons/day	
3.	Maximum Process or Throughpu	ıt Rate:			
4.	Maximum Production Rate:				
5.	Requested Maximum Operating	Schedule:			
		hours/day		days/week	
		weeks/year	8760	hours/year	
	19,130 btu/lb x 6.83 lb/gal = 13 (130,657.9 btu/gal x 42.5 gal/hi		ı = 5.55 mm	Btu/hr	

Emissions Unit Information Section	8	of	10	Emergency	<b>Diesel</b>	Generator

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

### **List of Applicable State Regulations**

F.A.C. 62-210.650	F.A.C. 62-297.310(1)
F.A.C. 62-210.650	F.A.C. 62-297.310(2)(b)
F.A.C. 62-210.700(1)	F.A.C. 62-297.310(4)(a)2
F.A.C. 62-210.700(4)	F.A.C. 62-297.310(5)
F.A.C. 62-210.700(5)	F.A.C. 62-297.310(7)(a)3
F.A.C. 62-210.700(6)	F.A.C. 62-297.310(7)(a)4a
F.A.C. 62-204.800(7)(d)	F.A.C. 62-297.310(7)(a)9

Emissions Unit Information Section 8 of 10 Emergency Diesel Generator

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

### **Emission Point Description and Type**

1.	Identification of Point on Pl Flow Diagram? EU 8 - ED	2. Emission Po	oint Type Code: 1					
3.	3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):							
	Unit exhaust through single stack							
4.	ID Numbers or Descriptions	s of Emission Ur	nits with this Emi	ssion Point in Comr	non:			
5.	Discharge Type Code: H	6. Stack Heigh	ht: 13 feet	7. Exit Diameter: 0	.5 feet			
8.	Exit Temperature: 810 °F		umetric Flow 50 acfm	10. Water Vapor:	%			
11.	Maximum Dry Standard Flo	ow Rate: dscfm	12. Nonstack Er	mission Point Heigh	t: feet			
13.	Emission Point UTM Coord	linates:			-			
	Zone: 17 E	ast (km): 54320	2 North	h (km): 22992707				
14.	Emission Point Comment (1	imit to 200 chara	acters):					
	Emergency Diesel Generator for Combined Cycle Units 3 & 4.							

Emissions Unit Information	Section 8	of <u>10</u> E	Emergency Diesel Generator			
E. SEGMENT (PROCESS/FUEL) INFORMATION (All Emissions Units)						
Segment Description and Ra	ite: Segment	<u>1</u> of <u>1</u>				
<ol> <li>Segment Description (Process/Fuel Type) (limit to 500 characters):</li> <li>Diesel Fuel burned in the emergency diesel generator</li> </ol>						
2. Source Classification Code	e (SCC):	3. SCC Unit	s:			
2-01-001-02		thousand	s gallons burned			
4. Maximum Hourly Rate: 0.0425	5. Maximum . <b>372.3</b>	Annual Rate:	6. Estimated Annual Activity Factor:			
7. Maximum % Sulfur: 0.3	8. Maximum (	9. Million Btu per SCC Unit: 131				
10. Segment Comment (limit t	to 200 characters	<del>)</del> :				

Hours of operation restricted by PSD permit #PSF-FL-146 for providing emergency power to units 3 and 4 and to test operation.

	Emissions <b>U</b>	Unit Informati	ion Section	8	of	10	Emergency	Diesel	Generator
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# F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control     Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
NOx			EL
SO2			EL
		-	
			-

<b>Emissions Unit Information Section</b>	8_	of	10	<b>Emergency Diesel Generator</b>
Pollutant Detail Information Page	1	of	_	•

# G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)						
Potential/Fugitive Emissions						
1. Pollutant Emitted: NOx	2. Total Percent Efficiency of Control	l:				
3. Potential Emissions: 72.07 lb/hour	316 tons/year 4. Synthetical Limited?	•				
5. Range of Estimated Fugitive Emissions:  [ ] 1 [ ] 2 [ ] 3	totons/year					
6. Emission Factor: 15 g/hp-hour  Reference: PSD Permit #PSD-FL-14	1					
14. Calculation of Emissions (limit to 600 characters):  15 g/hp-hour x Btu/(2.547 x 10 ⁻³ )hp-hr = 5.889 x 10 ⁻³ g/Btu  5.889 x 10 ⁻³ g/Btu x 1,000,000 Btu/mmBtu = 5889.28 g/mmBtu  5889.28 g/mmBtu x (2.205 x 10-3 g/lb) = 12.99 lb/mmBtu  12.99 g/mmBtu x 5.55 mmBtu/hr = 72.07 lb/hr  (72.07 lb/.hr x 8760 hrs/year)/2000lb/ton = 316 tons/year						
This Emissions Unit is limited to operation emission units 3 – 4. Emission estimates and	re given for operation at 8760 hrs/year	r.				
Allowable Emissions Allowable Emissions	<u>l</u> of <u>1</u>					
<ol> <li>Basis for Allowable Emissions Code:</li> <li>Required or assumed by permittee for other</li> <li>Requested Allowable Emissions and Units:</li> <li>15 g/hp-hour</li> </ol>	<ul><li>2. Future Effective Date of Allowable Emissions:</li><li>4. Equivalent Allowable Emissions:</li></ul>	e				
	72.07 lbs/hr 316 tons/year					
<ol> <li>Method of Compliance (limit to 60 character None Required</li> </ol>	rs):	1				
6. Allowable Emissions Comment (Desc. of Op PSD Permit #PSD-FL-146 specifies and emiss unit.	perating Method) (limit to 200 characters ion limit of 15g/hp-hour for this emiss	s): iion				

<b>Emissions Unit Information Section</b>	8	_ of	10	_ Emergency Diesel Generator
Pollutant Detail Information Page	<u> </u>	_ of _	2	

# G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

**Emissions-Limited and Preconstruction Review Pollutants Only)** 

### **Potential/Fugitive Emissions**

1. Pollutant Emitted: SO2	2. Total Percent Efficie	ency of Control:
3. Potential Emissions: 1.72 lb/hour	7.5 tons/year	4. Synthetically Limited? [YES]
5. Range of Estimated Fugitive Emissions:  [ ] 1 [ ] 2 [ ] 3	to to	ns/year
6. Emission Factor: 0.31 lb/mmBtu (3% S)  Reference: PSD Permit #PSD-FL-14	6	16. Emissions Method Code:
5.55 mmBtu/hr x 0.31 lb/mmBtu = 1.72 lb/ (1.72 lb/hr x 8760 hr/year)/2000 lb/ton = 7. 18. Pollutant Potential/Fugitive Emissions Commandate This Emissions Unit is limited to operation emission units 3 – 4. Emission estimates ar	nent (limit to 200 charac when emergency power	er is needed for
Allowable Emissions Allowable Emissions1	of <u>1</u>	
<ol> <li>Basis for Allowable Emissions Code:         Required or assumed by permittee for other     </li> <li>Requested Allowable Emissions and Units:         3% S oil     </li> </ol>	<ol> <li>Future Effective Da Emissions:</li> <li>Equivalent Allowat</li> <li>1.72 lbs/hr</li> <li>7.5</li> </ol>	
5. Method of Compliance (limit to 60 character 12-month weighted average sulfur content	-	
6. Allowable Emissions Comment (Desc. of Op PSD Permit #PSD-FL-146 specifies 0.3% sulfa		200 characters):

Emissions	<b>Unit Information</b>	Section	R	οf	10	Emergency	Diesel	Generator
E11112210112	Ouit Information	Section	O	UI	10	Emergency	Dieser	Generator

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

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

<u> </u>	Sible Emissions Emitterion.			_			_
1.	Visible Emissions Subtype: VE20	2.	Basi		liowable (	Opacity:	] Other
<u> </u>		<u> </u>	<u>[ A</u> .	Kuic	;		] Other
3.	Requested Allowable Opacity:						
		-	ional	Condit	ions:		%
	Maximum Period of Excess Opacity Allowe	ed:					min/hour
	·						
4.	Method of Compliance:						
	EPA Method 9						
	Wiells Fraining Comment (limites 200	1	- 4 \				
) J.	Visible Emissions Comment (limit to 200 c						
	Information provided for operation using	g dis	tillat	e oil			
	<del></del> -						
Vi	sible Emissions Limitation: Visible Emissi	ons	Limit	ation _	<u>2</u> of	2	
		,					
	Visible Emissions Subtype:	,	Basi	s for A	lowable (		
1.	Visible Emissions Subtype: VE100	,		s for A	lowable (		] Other
1.	Visible Emissions Subtype: VE100 Requested Allowable Opacity:	2.	Basi [X]	s for A Rule	lowable (		] Other
1.	Visible Emissions Subtype:  VE100  Requested Allowable Opacity: Normal Conditions: 100 % Ex	2.	Basi [X]	s for A Rule	lowable (	Opacity:	Other %
1.	Visible Emissions Subtype: VE100 Requested Allowable Opacity:	2.	Basi [X]	s for A Rule	lowable (	Opacity:	] Other
3.	Visible Emissions Subtype:  VE100  Requested Allowable Opacity:  Normal Conditions:  100 % Ex  Maximum Period of Excess Opacity Allower	2.	Basi [X]	s for A Rule	lowable (	Opacity:	Other %
3.	Visible Emissions Subtype:  VE100  Requested Allowable Opacity:  Normal Conditions:  100 % Ex  Maximum Period of Excess Opacity Allowate  Method of Compliance:	2.	Basi [X]	s for A Rule	lowable (	Opacity:	Other %
3.	Visible Emissions Subtype:  VE100  Requested Allowable Opacity:  Normal Conditions:  100 % Ex  Maximum Period of Excess Opacity Allower	2.	Basi [X]	s for A Rule	lowable (	Opacity:	Other %
3.	Visible Emissions Subtype:  VE100  Requested Allowable Opacity:  Normal Conditions:  Maximum Period of Excess Opacity Allowed  Method of Compliance:  EPA Method 9	2.	Basi [X] ional	s for A Rule	lowable (	Opacity:	Other %
3.	Visible Emissions Subtype:  VE100  Requested Allowable Opacity:  Normal Conditions:  100 % Ex  Maximum Period of Excess Opacity Allowa  Method of Compliance:  EPA Method 9  Visible Emissions Comment (limit to 200 c	2. ccept ed:	Basi [X] ional cters)	s for A Rule Condit	lowable (	Opacity:	Other % nin/hour
3.	Visible Emissions Subtype: VE100  Requested Allowable Opacity: Normal Conditions: 100 % Ex Maximum Period of Excess Opacity Allowed  Method of Compliance: EPA Method 9  Visible Emissions Comment (limit to 200 compliance) DEP Rule 62-210.700(1) allows excess em	2. ccept ed:	Basi [X] ional cters)	s for A Rule Condit	lowable (	Opacity:	Other % nin/hour
3.	Visible Emissions Subtype:  VE100  Requested Allowable Opacity:  Normal Conditions:  100 % Ex  Maximum Period of Excess Opacity Allowa  Method of Compliance:  EPA Method 9  Visible Emissions Comment (limit to 200 c	2. ccept ed:	Basi [X] ional cters)	s for A Rule Condit	lowable (	Opacity:	Other % nin/hour
3.	Visible Emissions Subtype: VE100  Requested Allowable Opacity: Normal Conditions: 100 % Ex Maximum Period of Excess Opacity Allowed  Method of Compliance: EPA Method 9  Visible Emissions Comment (limit to 200 compliance) DEP Rule 62-210.700(1) allows excess em	2. ccept ed:	Basi [X] ional cters)	s for A Rule Condit	lowable (	Opacity:	Other % nin/hour
3.	Visible Emissions Subtype: VE100  Requested Allowable Opacity: Normal Conditions: 100 % Ex Maximum Period of Excess Opacity Allowed  Method of Compliance: EPA Method 9  Visible Emissions Comment (limit to 200 compliance) DEP Rule 62-210.700(1) allows excess em	2. ccept ed:	Basi [X] ional cters)	s for A Rule Condit	lowable (	Opacity:	Other % nin/hour
3.	Visible Emissions Subtype: VE100  Requested Allowable Opacity: Normal Conditions: 100 % Ex Maximum Period of Excess Opacity Allowed  Method of Compliance: EPA Method 9  Visible Emissions Comment (limit to 200 compliance) DEP Rule 62-210.700(1) allows excess em	2. ccept ed:	Basi [X] ional cters)	s for A Rule Condit	lowable (	Opacity:	Other % nin/hour

Emissions I	In it Inf.	ammatian	Continu	0	a f	10	Emanagan		Diagal.	Cananata	
Emissions U		urmanon	Section	0	O1	10	Emergen	CV	Diezei	Generatu	"

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

<b>Emissions</b>	Unit !	Information	Section	8	of	10	Emergency	Diesel	Generator
			~ +	~					~~~~~~~

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

#### **Supplemental Requirements**

1.	Process Flow Diagram
	[X] Attached, Document ID: PMRU8-1.ipg [ ] Not Applicable [ ] Waiver Requested
2.	Fuel Analysis or Specification
	[X] Attached, Document ID: PMRU8-2.txt [ ] Not Applicable [ ] Waiver Requested
3.	Detailed Description of Control Equipment
	[ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
4.	Description of Stack Sampling Facilities
	[ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
5.	Compliance Test Report
	[ ] Attached, Document ID:
	[ ] Previously submitted, Date:
	[X] Not Applicable
6.	Procedures for Startup and Shutdown
	[X] Attached, Document ID PMRU8-6.txt
i.	[ ] Not Applicable [ ] Waiver Requested
7.	Operation and Maintenance Plan
	[ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
8.	1.
,	[ ] Attached, Document ID: [ X ] Not Applicable
9.	Other Information Required by Rule or Statute
	[ ] Attached, Document ID: [X] Not Applicable
10	. Supplemental Requirements Comment:

Emissions Unit Information Section 8 of 10 Emergency Diesel Generator Additional Supplemental Requirements for Title V Air Operation Permit Applications 11. Alternative Methods of Operation Attached, Document ID PMRU8-11 [ ] Not Applicable [ ] Waiver Requested 12. Alternative Modes of Operation (Emissions Trading) [ ] Attached, Document ID: [X] Not Applicable 13. Identification of Additional Applicable Requirements ] Attached, Document ID: PMRU8-13 [X] Not Applicable [ ] Waiver Requested 14. Compliance Assurance Monitoring Plan Attached, Document ID: [X] Not Applicable 15. Acid Rain Part Application (Hard-copy Required) Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: Phase II NOx Compliance Plan (Form No. 62-210,900(1)(a)4.)

Attached, Document ID:

Attached, Document ID:

[X] Not Applicable

Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)

Emissions Unit Information Section	9	of	10	Combustion Turbines 8A & 8B
emissions enit information section	,	O.	10	Combustion I diblines on & ob

#### III. EMISSIONS UNIT INFORMATION

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

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

#### **Emissions Unit Description and Status**

1.	Type of Emission	ns Unit Addressed in Thi	s Section: (Check one)				
[ }	process or prod		n addresses, as a single emis which produces one or more a on point (stack or vent).	_			
]	process or prod		n addresses, as a single emis s which has at least one defi- gitive emissions.				
[	-		n addresses, as a single emis s which produce fugitive em	-			
2.	Regulated or Unr	egulated Emissions Unit	? (Check one)				
[ }	The emissions emissions unit.	unit addressed in this Em	nissions Unit Information Sec	ction is a regulated			
[	] The emissions emissions unit.	unit addressed in this Em	nissions Unit Information Sec	ction is an unregulated			
3.	Description of Er Combustion Tur		in This Section (limit to 60 o	characters):			
4.	Emissions Unit Id ID: 11 - 12	lentification Number:		[ ] No ID [ ] ID Unknown			
5.	5. Emissions Unit Startup Status Code: A 08/01/01 7. Emissions Unit Major Group SIC Code: 49 8. Acid Rain Unit? [Y]						
9.	9. Emissions Unit Comment: (Limit to 500 Characters) Emission Units 11 & 12 are lean burn General Electric model 7FA simple cycle combustion turbines for electrical generation using natural gas as primary fuel and distillate oil as backup fuel.						
l	i						

En	issions Unit Information Section 9 of 10 Combustion Turbines 8A & 8B
<u>En</u>	issions Unit Control Equipment
1.	Control Equipment/Method Description (Limit to 200 characters per device or method):
	Dry-Low NOx Staged Combustion
	·
2.	Control Device or Method Code(s): 025
<u>En</u>	issions Unit Details
1.	Package Unit:  Manufacturer: General Electric Model Number: PG7241 (FA)
2.	Generator Nameplate Rating: 191 MW
3.	Incinerator Information:
	Dwell Temperature: °F  Dwell Time: seconds
	Incinerator Afterburner Temperature: seconds oF

Emissions Unit Information Section 9 of 10 Combustion Turbines 8A & 8B

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

### **Emissions Unit Operating Capacity and Schedule**

1.	Maximum Heat Input Rate:	2,008	mmBtu/hr		
2.	Maximum Incineration Rate:		lb/hr		tons/day
3.	Maximum Process or Throughpu	ıt Rate:			· · · · · · · · · · · · · · · · · · ·
4.	Maximum Production Rate:				
5.	Requested Maximum Operating	Schedule:			
		hours/day	,		days/week
		weeks/yea	ar	3390	hours/year
6.	Operating Capacity/Schedule Co Combustion turbine maximum	•		•	air temperature of
6.		heat inpung Value (I	t rate is provid HHV). Operatio	ed at inlet on below 5	50% is limited to

Emissions Unit Information Section 9 of 10 Combustion Turbines 8A & 8B

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

### **Emission Point Description and Type**

Identification of Point on Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plant Plan		2. Emission	Point Type Code: 1			
3. Descriptions of Emission Po	oints Comprising	g this Emissions (	Jnit for VE Tracking (limi	t to		
100 characters per point):						
Unit exhaust through sim	nle ovele stack					
oust exhaust thi ough shin	ne cycle stack					
4. ID Numbers or Descriptions	s of Emission Ur	nits with this Emi	ssion Point in Common:			
5. Discharge Type Code:	6. Stack Heig		7. Exit Diameter:			
V		80 feet	<b>20.5</b> fe	et		
8. Exit Temperature:	9. Actual Vol	umetric Flow	10. Water Vapor:			
1,115 °F	Rate: 2,380		%	<b>)</b>		
11. Maximum Dry Standard Flo	ow Rate:  dscfm	12. Nonstack Er	nission Point Height:			
	uscini		feet			
13. Emission Point UTM Coord	linates:					
Zone: 17 E	ast (km): 543.	.06 Norti	h (km): 2997.68			
14. Emission Point Comment (	imit to 200 char	acters):				
Stack conditions for operation at 35 °F firing Natural gas						
Stack conditions for operation at 35 if fitting Patural gas						

Emissions	Unit	Information :	Section	Q	οf	10	Combustion	Turbines	8A	R	ЯR
E 11112210112	Cult	LULUI IIIALIUU (	Section	7	UL	10	Compasiion	Luibines	0.7	O.	OD

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

(All Emissions Units)							
Segment Description and Ra	Segment Description and Rate: Segment 1 of 2						
Segment Description (Process/Fuel Type) (limit to 500 characters):     Pipeline Natural Gas							
	To the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se						
2. Source Classification Cod 2-01-002-01	e (SCC):	3. SCC Units	s: 'ubic Feet				
4. Maximum Hourly Rate:	5. Maximum A 6,158		6. Estimated Annual Activity Factor: 39%				
7. Maximum % Sulfur:	8. Maximum %	∕₀ Ash:	9. Million Btu per SCC Unit: 1,024				
10. Segment Comment (limit	to 200 characters)	):					
inlet and 3,390 Base Load he	ours. Annual M	illion Btu assu	I rates based on 35 °F turbine imes Natural Gas HHV.				
Segment Description and Ra	ite: Segment 2	of <u>2</u>					
Segment Description (Process/Fuel Type ) (limit to 500 characters):     Distillate Oil							
2. Source Classification Cod 2-01-001-01	e (SCC):	3. SCC Uni Thousand					
4. Maximum Hourly Rate:	5. Maximum A 7,358.35	Annual Rate:	6. Estimated Annual Activity Factor: 6.8%				
7. Maximum % Sulfur: 0.05	% Ash:	9. Million Btu per SCC Unit: 139					
10. Segment Comment (limit to 200 characters):  Maximum Hourly Rate = 14.7167. Maximum and Annual rates based on 59 °F turbine inlet and 500 Base Load hours. Annual Million Btu assumes Distillate HHV.							

# F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
1. I Ollumli Dillillou	Device Code	Device Code	Regulatory Code
PM			NS
SO2			EL
NOx	025	028	EL
СО			EL
VOC	,		EL
PM10			EL

<b>Emissions Unit Information Section</b>	9	of	10	Combustion Turbines 8A & 8B
	_	V.	10	

### G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

### Emissions-Limited and Preconstruction Review Pollutants Only)

### **Potential/Fugitive Emissions**

1. Pollutant Emitted: PM	2. Total Percent Efficiency of Control:					
3. Potential Emissions: 17.0 lb/hour	4. Synthetically Limited? [YES]					
5. Range of Estimated Fugitive Emissions:  [ ] 1 [ ] 2 [ ] 3	totons/year					
6. Emission Factor: 17.0 lb/hr  Reference: GE, 1998 Golder Asse	7. Emissions Method Code: 2					
Max. PM on Distillate = 17.0 lbs/hr x 5 Max. PM on Base Load Nat. Gas = 9.0 Max. PM on Power Mode Nat. Gas = 9	8. Calculation of Emissions (limit to 600 characters):  Max. PM on Distillate = 17.0 lbs/hr x 500 hrs/year = 8,500 lbs/yr  Max. PM on Base Load Nat. Gas = 9.0 lbs/hr x 2,390 hrs/year = 21,510 lbs/yr  Max. PM on Power Mode Nat. Gas = 9.0 lbs/hr x 500 hrs/year = 4,500 lbs/yr  Max. Total PM Emissions / Year = 34,510 lbs = 17.26 tons					
9. Pollutant Potential/Fugitive Emissions Co Lbs/hr and tons/year based on 35 °F tu limited to 500 hrs distillate and 3390 hr	rbine inlet temperature. Hours of operation					
Allowable Emissions Allowable Emissions	<u>1</u> of <u>1</u>					
Basis for Allowable Emissions Code:     OTHER	2. Future Effective Date of Allowable Emissions:					
3. Requested Allowable Emissions and Unit 10 % Opacity	ts: 4. Equivalent Allowable Emissions:  17.0 lb/hour 17.26 tons/year					
5. Method of Compliance (limit to 60 chara VE Test (Method 9) < 10%	cters):					
	f Operating Method) (limit to 200 characters): ractice standards established as BACT limits 212.400 F.A.C.)					

Emissions Unit Information Section 9 o	f 10 Combustion	Turbines 8A & 8B				
Pollutant Detail Information Page 2 of 6						
G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION						
` 8	nissions Units -					
Emissions-Limited and Preconst	truction Review Polluta	ints Only)				
Potential/Fugitive Emissions						
1. Pollutant Emitted: SO2	2. Total Percent Efficie	ency of Control:				
3. Potential Emissions:  103.1 lb/hour	33.14 tons/year	4. Synthetically Limited? [YES]				
5. Range of Estimated Fugitive Emissions:	100 E	ns/year				
6. Emission Factor: 0.05% Sulfur Distillate;		7. Emissions				
Reference: GE, 1998 Golder Associa	_	Method Code: 2				
8. Calculation of Emissions (limit to 600 charac	eters):	<u> </u>				
Max. SO2 on Distillate = 103.1 lbs/hr x 500	0 hrs/year = 51,550 lbs/	yr				
Max. SO2 on Base Load Nat. Gas = 5.1 lb	,	•				
Max. SO2 on Power Mode Nat. Gas = 5.1	•	2,550 lbs/yr				
Max. Total SO2 Emissions / Year = 66,289	0 lbs = 33.14 tons					
Emissions for each unit.						
0. D. H D	200 1					
9. Pollutant Potential/Fugitive Emissions Comr Lbs/hr and tons/year based on 35 °F turbi	•	· .				
limited to 500 hrs distillate and 3390 hrs B	<u>-</u>	- 1				
minica to 500 ms distinate and 5570 ms b	iase Loau Maturai Gas.					
Allowable Emissions Allowable Emissions 1	of <u>1</u>					
Basis for Allowable Emissions Code:	2. Future Effective Da	ate of Allowable				
OTHER	Emissions:					
3. Requested Allowable Emissions and Units:	4. Equivalent Allowal	ole Emissions:				
	103.1 lb/hour	33.14 tons/year				
5. Method of Compliance (limit to 60 character	•					
Fuel Specifications and vendor sampling a	ind analysis					
6. Allowable Emissions Comment (Desc. of Op	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				
Fuel specifications limited to pipeline natu	•	· -				
quality) containing no more than 0.05% so	ullur by weight. (Rule (	)Z-Z1Z.400 F.A.C.)				

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Emissions Unit Information Section 9 0	of 10 Combustion	ı Turbines 8A & 8B		
Pollutant Detail Information Page 3 of 6				
G. EMISSIONS UNIT POLLUT	·	RMATION		
, 0	nissions Units - truction Deview Polluts	ante Only)		
Emissions-Limited and Preconst	iruction Review Polluta	ints Only)		
Potential/Fugitive Emissions				
1. Pollutant Emitted: NOx	2. Total Percent Efficient	ency of Control:		
3. Potential Emissions: 334.0 lb/hour	188.62 tons/year	4. Synthetically Limited? [YES]		
5. Range of Estimated Fugitive Emissions:  [ ] 1 [ ] 2 [ ] 3	to to	ns/year		
6. Emission Factor: 42 ppmvd@ 15%O2 Dis 9 ppmvd @15% O2- N	7. Emissions Method Code:			
Reference: GE, 1998 Golder Associa	tes, Inc., 2000	2		
8. Calculation of Emissions (limit to 600 characteristics)	,			
Max. NOx on Distillate = 334.0 lbs/hr x 50	•	•		
Max. NOx on Base Load Nat. Gas = 66.0	· · · · · · · · · · · · · · · · · · ·	· •		
Max. NOx on Power Mode Nat. Gas = 105	•	r = 52,500  lbs/yr		
Max. Total NOx Emissions / Year = 377,24 Emissions for each unit.	40 lbs = 188.62 tons			
Emissions for each unit.				
9. Pollutant Potential/Fugitive Emissions Comr	nent (limit to 200 charac	iters):		
Lbs/hr and tons/year based on 35 °F turbi		•		
limited to 500 hrs distillate and 3390 hrs	-	- 1		
Allowable Emissions Allowable Emissions 1	of <u>1</u>			
Basis for Allowable Emissions Code:     OTHER	2. Future Effective Da Emissions:	ate of Allowable		
3. Requested Allowable Emissions and Units:	4. Equivalent Allowal	ble Emissions:		
42 ppmvd @15% O2 Distillate	334 lb/hour	188.62 tons/year		
9 ppmvd @15% O2 Natural Gas				
5. Method of Compliance (limit to 60 character	s):			
CEM Part 75				
6. Allowable Emissions Comment (Desc. of Op	- ,			
NOx emiss. based on a 3 hour roll avg and excludes 2 hrs excess emissions from start				
or shutdown, 1 hour/day for switch from oil oper. to nat. gas. Allow. excess emis. of 2				
hrs in any 24 hr for malf.				

Emissions Unit Information Section 9 0	of <u>10</u> Combustion	Turbines 8A & 8B			
Pollutant Detail Information Page 4 of 6					
G. EMISSIONS UNIT POLLUT	TANT DETAIL INFORM	MATION			
	nissions Units -				
Emissions-Limited and Preconst	truction Review Pollutan	its Only)			
Potential/Fugitive Emissions					
1. Pollutant Emitted: CO	2. Total Percent Efficier	ncy of Control:			
3. Potential Emissions: <b>68.0</b> lb/hour	67.0 tons/year	4. Synthetically Limited? [YES]			
5. Range of Estimated Fugitive Emissions:	, ,	s/year			
6. Emission Factor: 20 ppmv Distillate; 12 p		7. Emissions			
Reference: GE, 1998 Golder Associa		Method Code:			
Max. CO on Distillate = 68.0 lbs/hr x 500 hrs/year = 34,000 lbs/yr Max. CO on Base Load Nat. Gas = 32.0 lbs/hr x 2,390 hrs/year = 76,480 lbs/yr Max. CO on Power Mode Nat. Gas = 47.0 lbs/hr x 500 hrs/year = 23,500 lbs/yr Max. Total CO Emissions / Year = 133,980 lbs = 67.0 tons Emissions for each unit.					
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  Lbs/hr and tons/year based on 35 °F turbine inlet temperature. Hours of operation limited to 500 hrs distillate and 3390 hrs Base Load Natural Gas.					
Allowable Emissions 1	of <u>1</u>				
Basis for Allowable Emissions Code:     OTHER	2. Future Effective Date Emissions:	e of Allowable			
3. Requested Allowable Emissions and Units:	4. Equivalent Allowabl	le Emissions:			
20 ppmv Distillate; 12 ppmvd Nat. Gas	<b>68.0</b> lb/hour	67.0 tons/year			
5. Method of Compliance (limit to 60 character EPA Method 10; Initial Compliance Test of	•				
6. Allowable Emissions Comment (Desc. of Op Allowable emiss. based on manuf. data and or shutdown, 1 hour/day for switch from thrs in any 24 hr for malf.	d excludes 2 hrs excess e	missions from start			

Emissions Unit Information Section 9 of 10 Combustion Turbines 8A & 8B					
Pollutant Detail Information Page 5 of 6					
G. EMISSIONS UNIT POLLUT					
(Regulated Em					
Emissions-Limited and Preconst	ruction Review Pollutants Only)				
Potential/Fugitive Emissions					
1. Pollutant Emitted: VOC	2. Total Percent Efficiency of Control:				
3. Potential Emissions: 7.5 lb/hour	6.21 tons/year 4. Synthetically Limited? [YES]				
5. Range of Estimated Fugitive Emissions:	0.21 tons/year Emined: [1E5]				
	to tons/year				
6. Emission Factor: 3.5 ppmvw Distillate; 1.5	ppmvw Natural Gas 7. Emissions				
Reference: GE, 1998 Golder Associa	tes, Inc., 2000 Method Code:				
8. Calculation of Emissions (limit to 600 characters):  Max. VOC on Distillate = 7.5 lbs/hr x 500 hrs/year = 3,750 lbs/yr  Max. VOC on Base Load Nat. Gas = 3.0 lbs/hr x 2,390 hrs/year = 7,170 lbs/yr  Max. VOC on Power Mode Nat. Gas = 3.0 lbs/hr x 500 hrs/year = 1,500 lbs/yr  Max. Total VOC Emissions / Year = 12,420 lbs = 6.21 tons  Emissions for each unit.					
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):					
Allowable Emissions 1					
Basis for Allowable Emissions Code:     OTHER	Future Effective Date of Allowable Emissions:				
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:				
3.5 ppmvw Distillate ; 1.5 ppmvw Nat. Gas	7.5 lb/hour 6.21 tons/year				
5. Method of Compliance (limit to 60 characters):  EPA Methods 25, 25A for initial compliance test only.					
6. Allowable Emissions Comment (Desc. of Op Allowable emiss. based on manuf. data and or shutdown, 1 hour/day for switch from ohrs in any 24 hr for malf.	d excludes 2 hrs excess emissions from start				

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<b>Emissions Unit Information Section</b>	9	of	10	Combustion	Turbines	8A	& 8B
Pollutant Detail Information Page	6	of	6				

# G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

Emissions-Limited and Preconstruction Review Pollutants Only)

### Potential/Fugitive Emissions

	Total deliver Emissions						
1.	Pollutant Emitted: PM10	2. Total Percent Efficie	ency of Control:				
3.	Potential Emissions:	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	4. Synthetically				
	17.0 lb/hour	17.26 tons/year	Limited? [YES]				
5.	Range of Estimated Fugitive Emissions:						
		to to	ns/year				
6.	Emission Factor: 17.0 lb/hr		7. Emissions				
	Reference: GE, 1998 Golder Associa	ates, Inc., 2000	Method Code: 2				
	8. Calculation of Emissions (limit to 600 characters):  Max. PM10 on Distillate = 17.0 lbs/hr x 500 hrs/year = 8,500 lbs/yr  Max. PM10 on Base Load Nat. Gas = 9.0 lbs/hr x 2,390 hrs/year = 21,510 lbs/yr  Max. PM10 on Power Mode Nat. Gas = 9.0 lbs/hr x 500 hrs/year = 4,500 lbs/yr  Max. Total PM10 Emissions / Year = 34,510 lbs = 17.26 tons  Emissions for each unit.						
	9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):						
	lowable Emissions Allowable Emissions						
	Basis for Allowable Emissions Code: OTHER	2. Future Effective Da Emissions:	ite of Allowable				
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowal	ole Emissions:				
	10 % Opacity	<b>17.0</b> lb/hour	17.26 tons/year				
5. Method of Compliance (limit to 60 characters): VE Test (Method 9) < 10%							
6.	Allowable Emissions Comment (Desc. of Op Visible Emission standards are work prac for PM and PM10 emissions. (Rule 62-212	tice standards establish					

Emissions Unit Information Section	9	of	10	Combustion Turbines 8A & 8	B
Billion one throughten occion	_	VI.	10	Combustion Furbilles on & o.	v

## H. VISIBLE EMISSIONS INFORMATION

	(Only Regulated Emissions Units Subject to a VE Limitation)						
<u>Vi</u>	<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>1</u> of <u>2</u>						
1.	Visible Emissions Subtype: VE10	Basis for Allowable Opacity:     Rule [X] O					
3.		ceptional Conditions: ed:	% min/hour				
4.	4. Method of Compliance: Annual VE Test (EPA Method 9)						
5.	Visible Emissions Comment (limit to 200 cl	naracters):					
<u>Vi</u> :	sible Emissions Limitation: Visible Emissi	ons Limitation 2 of 2					
1.	Visible Emissions Subtype: VE99	2. Basis for Allowable Opacity: [X] Rule [] O	ther				
3.	Requested Allowable Opacity: Normal Conditions: NA % Ex Maximum Period of Excess Opacity Allower	ceptional Conditions:	100 % 60 min/hour				
4.	Method of Compliance: None						
5.	Visible Emissions Comment (limit to 200 cl FDEP Rule 62-210.700(1) allows for 2 hot excess visible emissions from start-up, shi	ırs (120 minutes) per 24 hour pe	riod for				

<b>Emissions Unit Information Section</b>	9	of	10	Combustion Turbines 8A &	8B

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

Continuous Monitoring System: Continuous Monitor 1 of 1 1. Parameter Code: 2. Pollutant(s): NOx  $\mathbf{E}\mathbf{M}$ 3. CMS Requirement: [X] Rule ] Other 4. Monitor Information Manufacturer: : NOx = Thermo Environmental Instruments; O2 = Servomex Model Number: NOx = 42CHL; O2 = 1420CSerial Number: **NO**x  $O_2$ 8A 42CHL-67447-357 01420C/1783 **8B** 42CHL-67452-357 01420C/1784 5. Installation Date: 6. Performance Specification Test Date: June 2001 8A = 06/27/018B = 06/26/017. Continuous Monitor Comment (limit to 200 characters):

Emissions Unit Information Section	Q	of	10	Combustion	Turbines	84	R	8P
Christians Only information Section	7	O1	ΙU	Compasion	I di Dines	OA	O.	ov

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

### **Supplemental Requirements**

1	
١.,	Process Flow Diagram
	[X] Attached, Document ID: PMREU9-1 [ ] Not Applicable [ ] Waiver Requested
2.	Fuel Analysis or Specification
	[X] Attached, Document ID: PMREU9-2 [ ] Not Applicable [ ] Waiver Requested
3.	Detailed Description of Control Equipment
	[X] Attached, Document ID: PMRRU9-3 [ ] Not Applicable [ ] Waiver Requested
4.	Description of Stack Sampling Facilities
	[X] Attached, Document ID: PMREU9-4 [ ] Not Applicable [ ] Waiver Requested
5.	Compliance Test Report
	[ ] Attached, Document ID:
	Previously submitted, Date:
	[X] Not Applicable
6.	Procedures for Startup and Shutdown
	[X] Attached, Document IDPMREU9-6b Start-Up Gas, PMREU9-6a Start-Up Oil)
	[ X ] Attached, Document IDPMREU9-6b Start-Up Gas, PMREU9-6a Start-Up Oil) [ ] Not Applicable [ ] Waiver Requested
7.	
7.	[ ] Not Applicable [ ] Waiver Requested
	[ ] Not Applicable [ ] Waiver Requested  Operation and Maintenance Plan
	[ ] Not Applicable [ ] Waiver Requested  Operation and Maintenance Plan [ ] Attached, Document ID: [ X ] Not Applicable [ ] Waiver Requested
8.	Operation and Maintenance Plan [ ] Attached, Document ID: [ X ] Not Applicable [ ] Waiver Requested  Supplemental Information for Construction Permit Application
8.	Operation and Maintenance Plan  [ ] Attached, Document ID: [ X ] Not Applicable [ ] Waiver Requested  Supplemental Information for Construction Permit Application  [ ] Attached, Document ID: [ X ] Not Applicable
8. 9.	Operation and Maintenance Plan  [ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested  Supplemental Information for Construction Permit Application [ ] Attached, Document ID: [X] Not Applicable  Other Information Required by Rule or Statute [ ] Attached, Document ID: [X] Not Applicable
8. 9.	Operation and Maintenance Plan  [ ] Attached, Document ID: [ X ] Not Applicable [ ] Waiver Requested  Supplemental Information for Construction Permit Application [ ] Attached, Document ID: [ X ] Not Applicable  Other Information Required by Rule or Statute
8. 9. 10 Fo	Operation and Maintenance Plan  [ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested  Supplemental Information for Construction Permit Application [ ] Attached, Document ID: [X] Not Applicable  Other Information Required by Rule or Statute [ ] Attached, Document ID: [X] Not Applicable  Supplemental Requirements Comment:  or each calendar day, up to 2 hours may be excluded from the continuous NOx mpliance demonstration for each combustion turbine due to excess NOx emissions
8. 9. 10 Fo	Operation and Maintenance Plan  [ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested  Supplemental Information for Construction Permit Application [ ] Attached, Document ID: [X] Not Applicable  Other Information Required by Rule or Statute [ ] Attached, Document ID: [X] Not Applicable  Supplemental Requirements Comment:  or each calendar day, up to 2 hours may be excluded from the continuous NOx mpliance demonstration for each combustion turbine due to excess NOx emissions sulting from startup or shutdown. No more than one hour for switch from operation on
8.  10 For contact of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the seco	Operation and Maintenance Plan  [ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested  Supplemental Information for Construction Permit Application [ ] Attached, Document ID: [X] Not Applicable  Other Information Required by Rule or Statute [ ] Attached, Document ID: [X] Not Applicable  Supplemental Requirements Comment:  or each calendar day, up to 2 hours may be excluded from the continuous NOx mpliance demonstration for each combustion turbine due to excess NOx emissions

<b>Emissions Unit Information S</b>	ection	9	οf	10	Combustion	Turbines	8A	R	٨R
emissions onic filtorination s	ecuon	7	UI	IV	Commustion	1 ut Dines	O/A	œ	oъ

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

11. Alternative Methods of Operation
[ ] Attached, Document ID: [ X ] Not Applicable
12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID: [ X ] Not Applicable
13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID: [X] Not Applicable
(Note: Refer to PSD-FL-286; DEP File No. 0850001-008-AC.)
14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID: [ X ] Not Applicable
15. Acid Rain Part Application (Hard-copy Required)
[X] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: PMREU1-15
[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:
[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:
[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:
[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:
[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID:
[ ] Not Applicable

Emissions Unit Information Section	10	of	10	Natural Gas Heaters
	10	~ .		I IMITAL CHO IZUMUUL

#### III. EMISSIONS UNIT INFORMATION

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

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

Emissions out Description and Status						
1. Type of Emissions Unit Addressed in Th	Type of Emissions Unit Addressed in This Section: (Check one)					
[X] 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 process or production units and activiti (stack or vent) but may also produce fu	es which has at least one defi					
[ ] This Emissions Unit Information Section process or production units and activities		-				
2. Regulated or Unregulated Emissions Uni	t? (Check one)					
[X] The emissions unit addressed in this Er emissions unit.	missions Unit Information Sec	ction is a regulated				
[ ] The emissions unit addressed in this Er emissions unit.	• •					
3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Natural Gas Heaters						
4. Emissions Unit Identification Number:	4. Emissions Unit Identification Number: [ ] No ID					
ID: 13	[ ] ]	D Unknown				
5. Emissions Unit Startup G. Initial Startup Date: C 08/01/01	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? [ NO ]				
9. Emissions Unit Comment: (Limit to 500 Characters)						
Emission Unit 13 are direct fired heaters using natural gas to heat the natural gas						
supplied to the simple cycle combustion	n turdines 8A and 8B.					

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En	nissions Unit Control Equipment		
1.	Control Equipment/Method Description (Limi	t to 200 ch	naracters per device or method):
	Low NOx Burners		
	•		
· .	Control Device or Method Code(s): 024		
Cn	nissions Unit Details		
 [,	Package Unit:		
	Manufacturer: Gastech Engineering Corp.		Model Number: FGA-HX-2
2.	Generator Nameplate Rating:	MW	
	Incinerator Information:		
	Dwell Temperature:		°F
	Dwell Time:		seconds
	Incinerator Afterburner Temperature:		°F

Emissions Unit Information Section 10 of 10 Natural Gas Heaters

Emissions Unit Information Section 10 of 10 Natural Gas Heaters

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

#### **Emissions Unit Operating Capacity and Schedule**

1.	Maximum Heat Input Rate:	5.7 mmBtu/hr		
2.	Maximum Incineration Rate:	lb/hr		tons/day
3.	Maximum Process or Throughp	ut Rate:		
4.	Maximum Production Rate:			
5.	Requested Maximum Operating	Schedule:		•
		hours/day		days/week
		···alra/vaam	05/0	•
6.	Operating Capacity/Schedule Co Natural Gas Heaters are fired	•	-	hours/year gn rate of 5.7
6.		omment (limit to 200 character	rs):	· •
6.		omment (limit to 200 character	rs):	· •

Emissions Unit Information Section	10	of	10	Natural Gas Heaters
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# CC. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

### **List of Applicable State Regulations**

FAC 62-210.300	
FAC 62-296.320(4)(b)1.	

Emissions Unit Information Section 10 of 10 Natural Gas Heaters

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

### **Emission Point Description and Type**

Identification of Point on Plo Flow Diagram? NA	ot Plan or	2. Emission Po	oint Type Code:	1		
3. Descriptions of Emission Po 100 characters per point):						
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:						
5. Discharge Type Code: V	6. Stack Heigh	ht: <b>80</b> feet	7. Exit Diamet	er: 20.5 feet		
8. Exit Temperature: 306 °F	9. Actual Volumente: 34,05	umetric Flow 59 acfm	10. Water Vapo	r: %		
11. Maximum Dry Standard Flo	w Rate: dscfm	12. Nonstack Er	mission Point Hei	ght: feet		
13. Emission Point UTM Coording Zone: 17 Ea	inates: ast (km): 543.	. <b>06</b> Nort	h (km): 2997.6	8		
14. Emission Point Comment (li						

Emissions Unit Information Section	10	of	10	Natural Gas Heaters
Emissions out thio mation occurs	10	UI	10	Itatulai Oas licatois

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

Segment Description and Rate: Segment 1 of 1						
Segment Description (Pro External Combustion H	* * '	•				
			•	•		
2. Source Classification Coc 1-01-006-01	le (SCC):	3. SCC Units		Feet		
4. Maximum Hourly Rate: 0.0056	5. Maximum 49.06	Annual Rate:	6.	Estimated Annual Activity Factor:		
7. Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit: 1,024		
10. Segment Comment (limit	to 200 characters	s):				
Maximum Hourly Rate	based on simult	aneous operatio	on of	heaters for 8A & 8B		
Segment Description and R	ate: Segment	of				
1. Segment Description (Pro	ocess/Fuel Type)	(limit to 500 cl	harac	eters):		
2. Source Classification Cod	Source Classification Code (SCC):     3. SCC Units:					
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 6. Estimated Annual Activi Factor:					
7. Maximum % Sulfur:	8. Maximum % Ash: 9. Million Btu per SCC Unit					
10. Segment Comment (limit to 200 characters):						

Emissions Unit Information Section 10 of 10 Natural Gas Heaters

# F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control     Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
NOx	024		NS
СО			NS

Emissions Unit Information Section 10 of 10 Natural Gas Heaters Pollutant Detail Information Page 1 of 2.

# G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

### Emissions-Limited and Preconstruction Review Pollutants Only)

Potential	/Fugitive	<b>Emissions</b>

1.	Pollutant Emitted: NOx	2.	Total	Percent Effi	ciency of Control:			
3.	Potential Emissions:				4. Synthetically			
	<b>0.285</b> lb/hour	1	.25	tons/year	Limited? [NO]			
5.	Range of Estimated Fugitive Emissions:							
	[]1 []2 []3			to	tons/year			
6.	Emission Factor: 0.05 lb/MMBtu				7. Emissions			
	Reference: PFM Test Data				Method Code: 2			
	8. Calculation of Emissions (limit to 600 characters):  NOx = 0.285 lb/hr * 8760 hrs/year * 1 ton/2000 lbs = 1.25 tons/year							
9.	<ol> <li>Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):         Lbs/hr and tons/year based on 100% capacity for 8760 hours/year.         Emissions are provided for information purposes only.         There are no emission limits for these units.     </li> </ol>							
Al	lowable Emissions Allowable Emissions	c	f					
1.	Basis for Allowable Emissions Code:	2.		re Effective sions:	Date of Allowable			
3.	Requested Allowable Emissions and Units:	4.	Equiv	valent Allow	able Emissions:			
			ľ	b/hour to	ons/year			
5.	Method of Compliance (limit to 60 character	rs):	-		- " "			
6.	Allowable Emissions Comment (Desc. of Open	perat	ing M	ethod) (limi	t to 200 characters):			

Emissions Unit Information Section 10 of 10 Natural Gas Heaters Pollutant Detail Information Page 2 of 2.

#### G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

#### **Emissions-Limited and Preconstruction Review Pollutants Only)**

Datan	4:a1/I	Progratica.	Em	coiona
roten	uall	<b><i>Sugitive</i></b>	E IIII	12210112

Pollutant Emitted: CO	2. Total Percent Efficiency of Control:						
3. Potential Emissions:  0.04 lb/hour	4. Synthetically Limited? [NO]						
5. Range of Estimated Fugitive Emissions:  [ ] 1 [ ] 2 [ ] 3	totons/year						
6. Emission Factor: 0.007 lb/MMBtu	7. Emissions						
Reference: PFM Test Data	Method Code:						
· · · · · · · · · · · · · · · · · · ·	8. Calculation of Emissions (limit to 600 characters):  CO = 0.04 lb/hr * 8760 hrs/year * 1 ton/2000 lbs = 0.17 tons/year						
Lbs/hr and tons/year based on 100% cap Emissions are provided for information p	9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):  Lbs/hr and tons/year based on 100% capacity for 8760 hours/year.  Emissions are provided for information purposes only.  There are no emission limits for these units.						
Allowable Emissions of							
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:						
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:  lb/hour tons/year						
5. Method of Compliance (limit to 60 characte	ers):						
6. Allowable Emissions Comment (Desc. of C	perating Method) (limit to 200 characters):						

Emissions Unit Information Section 10 of 10 Natural Gas Heaters Pollutant Detail Information Page 2 of 2.

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

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2 1. Visible Emissions Subtype: 2. Basis for Allowable Opacity: VE20 [X] Rule [ ] Other 3. Requested Allowable Opacity: 5 % Normal Conditions: **Exceptional Conditions:** % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: 5. Visible Emissions Comment (limit to 200 characters): There are no initial or periodic testing requirements for the visible emissions from the Natural Gas heaters. Visible Emissions Limitation: Visible Emissions Limitation 2 of 2 1. Visible Emissions Subtype: 2. Basis for Allowable Opacity: **VE99** [X] Rule [ ] Other 3. Requested Allowable Opacity: Normal Conditions: % **Exceptional Conditions:** 100 % Maximum Period of Excess Opacity Allowed: 60 min/hour 4. Method of Compliance: None 5. Visible Emissions Comment (limit to 200 characters): FDEP Rule 62-210.700(1) allows for 2 hours (120 minutes) per 24 hour period for excess visible emissions from start-up, shut-down, and malfunction.

Emissions Unit I	nformation	Section	10	οf	10	Natural	Cas	Heater	re
E11112210112 OHIL 1.	monation	Section	IU	O1	10	maturai	<b>G45</b>	пеаци	3

### I. CONTINUOUS MONITOR INFORMATION

(Only Regulated Emissions Units Subject to Continuous Monitoring) Continuous Monitoring System: Continuous Monitor 1 of 1 1. Parameter Code: 2. Pollutant(s): ] Other 3. CMS Requirement: [ ] Rule 4. Monitor Information Manufacturer:: Model Number: Serial Number: Installation Date: 6. Performance Specification Test Date: 7. Continuous Monitor Comment (limit to 200 characters): Emission monitors are not required for Natural Gas Heaters.

Emissions Unit Information Section 10	of	10	Natural Gas Heaters
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# J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION (Regulated Emissions Units Only)

### **Supplemental Requirements**

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

Emissions Unit Information Section _	10	of_	10	Natural G	as Heaters
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### Additional Supplemental Requirements for Title V Air Operation Permit Applications

,	
11. Alternative Methods of Operation	•
[ ] Attached, Document ID:	[X] Not Applicable [ ] Waiver Requested
12. Alternative Modes of Operation (Emissions	s Trading)
[ ] Attached, Document ID:	[X] Not Applicable
13. Identification of Additional Applicable Req	
[ ] Attached, Document ID:	[X] Not Applicable [ ] Waiver Requested
14. Compliance Assurance Monitoring Plan	
[ ] Attached, Document ID:	[X] Not Applicable
15. Acid Rain Part Application (Hard-copy Red	quired)
[ ] Acid Rain Part - Phase II (Form No. 6	2-210.900(1)(a))
Attached, Document ID:	
Repowering Extension Plan (Form N	o 62 210 000(1)(a)1 )
[ ] Repowering Extension Plan (Form No Attached, Document ID:	0. 02-210.900(1)(a)1.)
[ ] New Unit Exemption (Form No. 62-2	10.900(1)(a)2.)
Attached, Document ID:	
[ ] Retired Unit Exemption (Form No. 62	2-210.900(1)(a)3.)
Attached, Document ID:	•
[ ] Phase II NOx Compliance Plan (Form	No. 62-210 900(1)(a)4 )
Attached, Document ID:	110. 02 210.500(1)(a)4.)
	60.010.000(1)(.).
[ ] Phase NOx Averaging Plan (Form No	. 62-210.900(1)(a)5.)
Attached, Document ID:	
[X] Not Applicable	

#### III. EMISSIONS UNIT INFORMATION

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

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

#### **Emissions Unit Description and Status**

1.	1. Type of Emissions Unit Addressed in This Section: (Check one)							
[ X	[X] 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).							
[	process or prod		n addresses, as a single emis s which has at least one defin gitive emissions.					
[	-		n addresses, as a single emis s which produce fugitive em	-				
2.	Regulated or Unr	egulated Emissions Unit	? (Check one)	•				
[	] The emissions unit.	unit addressed in this Em	issions Unit Information Sec	ction is a regulated				
[ X	The emissions a emissions unit.	unit addressed in this Em	issions Unit Information Sec	ction is an unregulated				
3.	3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Unregulated Emission Units							
4.	Emissions Unit Io	lentification Number:		[ ] No ID				
	ID: xxx			[X] ID Unknown				
5.	5. Emissions Unit Status Code: Date: 7. Emissions Unit Major Story SIC Code: 6. Initial Startup Group SIC Code: [N]							
9.		omment: (Limit to 500 (						
		<b>₹</b>	el Generator for Units 1 &	. 9				
			nt and Engines, and other	miscellaneous				
	equipment not o	therwise regulated at th	ie facility.					

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Emissions Unit Information Section: Unregulated Emission Units
Emissions Unit Control Equipment
1. Control Equipment/Method Description (Limit to 200 characters per

1.	Control Equipment/Method Description (Limit to 200 characters per device of method):
2.	Control Device or Method Code(s):

### **Emissions Unit Details**

1.	Package Unit:		
	Manufacturer:	Model Nu	mber:
2.	Generator Nameplate Rating:	MW	
3.	Incinerator Information:	•••	
	Dwell Temperature:		°F
	Dwell Time:		seconds
	Incinerator Afterburner Temperature:		°F

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0237560/4/4,3/4,3.1 Martin/FPL-PMR_KFK_Form1_EU10 13 7/2/03

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

#### **Emissions Unit Operating Capacity and Schedule**

1.	Maximum Heat Input Rate:				
2.	Maximum Incineration Rate:	lb/hr		tons/day	
3.	Maximum Process or Throughp	out Rate:		<del></del>	
4.	Maximum Production Rate:				
5.	Requested Maximum Operating	Schedule:			
		hours/day		days/week	
		weeks/year	8760	hours/year	
	Various sources within this en	nission unit may operate u	<b>ρ το 8</b> / <b>ο</b> υ	nours/year.	

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

### **List of Applicable State Regulations**

F.A.C. 62-210.300(3)(a)20.	F.A.C. 62-210.700(1)
F.A.C. 62-210.700(4)	F.A.C. 62-210.700(5)
F.A.C. 62-210.700(6)	F.A.C. 62-297.310(2)(a)
F.A.C. 62-297.310(2)(b)	F.A.C. 62-297.310(4)(a)2
F.A.C. 62-297.310(5)	F.A.C. 62-297.310(7)(a)9
F.A.C. 62-297.310(8)	F.A.C. 62-297.320(4)(b)1

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

### **Emission Point Description and Type**

Identification of Point on Pl Flow Diagram? NA	ot Plan or	2. Emission Point Type Code: 1						
3. Descriptions of Emission Po 100 characters per point):								
Unit exhaust through sing	Unit exhaust through single stack							
4. ID Numbers or Descriptions	4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:							
5. Discharge Type Code:  H	6. Stack Heig	ht: 18 feet	7. Exit Diameter: 1.1	7 feet				
8. Exit Temperature: 950 °F		umetric Flow ,540 acfm	10. Water Vapor:	%				
11. Maximum Dry Standard Flo	ow Rate: dscfm	12. Nonstack Er	nission Point Height:	feet				
13. Emission Point UTM Coord	linates:							
Zone: 17 E	ast (km): 543	Nortl	n (km): 2993027					
14. Emission Point Comment (I	imit to 200 char	acters):						
Values for emergency diesel generator associated with Emission Units 1 & 2.								

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

Segment Description and Rate: Segment 1 of 3

1.	<ol> <li>Segment Description (Process/Fuel Type) (limit to 500 characters):</li> <li>Diesel fuel burned in mobile emergency diesel generator.</li> </ol>								
2.	Source Classification Code	e (SCC):	3. SCC Units:						
	2-01-001-02	r" .	<u> </u>		llons Burned				
	Maximum Hourly Rate: 0.034	5. Maximum <b>13.65</b>	Annual Rate:	6.	Estimated Annual Activity Factor:				
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit: 136				
10.	Segment Comment (limit t	to 200 characters	s):						
	Maximum annual rate b	ased on 400 ho	urs of operation	per	year.				
Se	gment Description and Ra	i <b>te:</b> Segment	<u>2</u> of <u>3</u>						
1.	Segment Description (Proc	cess/Fuel Type)	(limit to 500 cha	ract	ers):				
Fu	gative emissions – fugitive		`		,				
			•						
2	Source Classification Code	e (SCC):	3. SCC Units:						
		· · · · · · · · · · · · · · · · · · ·	Tons	,					
4.	Maximum Hourly Rate:	5. Maximum <b>35.7</b> 1	Annual Rate:	6.	Estimated Annual Activity Factor:				
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit:				
10.	Segment Comment (limit t	to 200 characters	 s):						
					und the facility, including				
the	6,000 acre cooling pond p	perimeter. Esti	mate include in	initi	al Title V application.				

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

Segment Description and Rate: Segment 3 of 3

Segment 5 of 5							
Segment Description (Process/Fuel Type) (limit to 500 characters):  Fugative emissions – fugitive VOC's							
2. Source Classification Cod	e (SCC):	3. SCC Units:					
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 23.22		6. Estimated Annual Activity Factor:				
7. Maximum % Sulfur:	8. Maximum % Ash:		9. Million Btu per SCC Unit:				
10. Segment Comment (limit	to 200 characters	s):					
This page represents VO operations, and site solvent	OC emissions fro	om oil storage ta					

# F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control     Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	Device code	Device code	NS NS
SO2		-	NS
NOx			NS
CO			NS
VOC			NS
PM10			NS
			Adam to the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control o
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			,

<b>Emissions Unit Information Section</b>	n:	Unre	gula	ted	<b>Emission</b>	Units
Pollutant Detail Information Page	_	1	of_	1		

# G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units -

**Emissions-Limited and Preconstruction Review Pollutants Only)** 

<u>Po</u>	Potential/Fugitive Emissions						
1.	Pollutant Emitted: NOx	2. Total Percent Efficie	ency of Control:				
3.	Potential Emissions:		4. Synthetically				
	<b>15.88</b> lb/hour	3.41 tons/year	Limited? [NO]				
5.	Range of Estimated Fugitive Emissions:						
	[ ] 1 [ ] 2 [ ] 3	to to:	ns/year				
6.	Emission Factor: 15.88 lb/mmBtu		7. Emissions				
	Reference: Detroit Diesel		Method Code:				
8.	8. Calculation of Emissions (limit to 600 characters): 15.88 lb/hr * 400 hours/year * (1 ton/2000 lb) = 3.41 Tons/year						
9.	Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): The Emergency Diesel Generator is operated only when needed to supply emergency power to the facility. Estimates are based on 400 hrs/year from Mfg. Supplied factor. The emergency diesel generator does not currently have an emissions limit for NOx.						
Al	lowable Emissions Allowable Emissions	of					
1.	Basis for Allowable Emissions Code:	2. Future Effective Da Emissions:	ate of Allowable				
3.	Requested Allowable Emissions and Units:	4. Equivalent Allowal	ole Emissions:				
5.	5. Method of Compliance (limit to 60 characters):						
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to	o 200 characters):				

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

Visible Emissions Limitation: Visible Emissions Limitation 1

			<del></del>		
1.	Visible Emissions Subtype: 2. Basis for Allowable Opacity:		Opacity:		
	VE20	[X] Rule	[ ] Other		
3.	Requested Allowable Opacity:		<u> </u>		
	• •	cceptional Conditions:	%		
	Maximum Period of Excess Opacity Allow		min/hour		
	Maximum 1 chod of Excess Opacity Amow	ca.	minmou		
4.	Method of Compliance:	·			
7.	EPA Method 9				
	El A Method 9				
5.	Visible Emissions Comment (limit to 200 c	haracters):			
	Information provided is for the emergen	•	serves fossil units 1		
	& 2 (EU's 1 and 2)	-	201700 103011 41110 1		
			•		
L		·			
<u>Vi</u>	sible Emissions Limitation: Visible Emissi	ions Limitation <u>2</u> of _	<u>2</u>		
1.	Visible Emissions Subtype:	2. Basis for Allowable C	)pacity:		
	VE100	[X] Rule	[ ] Other		
3.	Requested Allowable Opacity:	] [ ]			
	•	cceptional Conditions:	100 %		
	Maximum Period of Excess Opacity Allow	•	min/hour		
	Maximum Ferrod of Excess Opacity Amow	ca. <b>00</b>	mminout		
1	4. Method of Compliance:  EPA Method 9				
7.					
	El A Michiga 9				
5.	Visible Emissions Comment (limit to 200 c	haracters):			
"	Rule 62-210.700(1) allows 2 hrs/ 24 hrs of excess emissions for startup, shutdown, and				
	malfunction. Information provided is for the emergency diesel generator which serves				
	fossil units 1 & 2 (EU's 1 and 2)				
!	rossii dinto i de 2 (120 s l aliu 2)				
•					
'					
•					

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

Continuous Monitoring System: Continuous Monitor 1 of 1

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 (limit to 200 characters):  Emission monitors are not required for unregulated emission units.	

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

### **Supplemental Requirements**

1.	Process Flow Diagram
	[ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
2.	Fuel Analysis or Specification
	[ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
3.	Detailed Description of Control Equipment
	[ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
4.	Description of Stack Sampling Facilities
	[ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
5.	Compliance Test Report
	[ ] Attached, Document ID:
	[ ] Previously submitted, Date:
	[X] Not Applicable
0.	Procedures for Startup and Shutdown
	[ ] Attached, Document ID:
	[X] Not Applicable [] Waiver Requested
7.	Operation and Maintenance Plan
!	[ ] Attached, Document ID: [X] Not Applicable [ ] Waiver Requested
8.	Supplemental Information for Construction Permit Application
	[ ] Attached, Document ID: [X] Not Applicable
9	Other Information Required by Rule or Statute
<b> </b>	[ ] Attached, Document ID: [X] Not Applicable
	[ ] Tallianian, Bouline in in [ 72 ] Not replicable
10	. Supplemental Requirements Comment:

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

11. Alternative Methods of Operation		
[ ] Attached, Document ID:	[X] Not Applicable [ ] Waiver Requested	
12. Alternative Modes of Operation (Emissions	s Trading)	
[ ] Attached, Document ID:	[X] Not Applicable	
13. Identification of Additional Applicable Req	uirements	
[ ] Attached, Document ID:	[X] Not Applicable [ ] Waiver Requested	
14. Compliance Assurance Monitoring Plan		
[ ] Attached, Document ID:	[X] Not Applicable	
15. Acid Rain Part Application (Hard-copy Red	quired)	
[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID:		
[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID:		
[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID:		
[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID:		
[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID:		
[ ] Phase NOx Averaging Plan (Form No Attached, Document ID:	. 62-210.900(1)(a)5.)	
[X] Not Applicable		

### **ATTACHMENTS**

FPL MARTIN PLANT TITLE V APPLICATION

#### **Attachment PPEU1 14.doc**

<u>Units 1 and 2</u>: Justification for the mechanical Dust Collectors installed within FPL's Fossil Steam Boilers to be excluded from the CAM rule

Based on the January 8, 1998 U.S. EPA letter on Compliance Assurance Monitoring Rule Implementation Question and Answers, the mechanical Dust Collectors installed within FPL's Fossil Steam Boilers are excluded because:

- The mechanical Dust Collector is inherent process equipment contained entirely within the flue gas ductwork.
- The mechanical Dust Collector is a passive method of particle separation from the flue gas stream.
- The mechanical Dust Collector is a device to recover unburned carbon and ash from the flue gas stream.
- The mechanical Dust Collector has no moving parts, no control inputs, nor any controllable parameters.

Based on the characteristics above, the justification to exclude the mechanical Dust Collectors from the CAM rule is appropriate.

<u>Units 3A and A, Units 4A and B, and Units 8A and B</u>: CAM is not applicable to the combustion turbine units since dry low-NOx combustors when firing natural gas are not considered a pollution control device under 40 CFR Part 64. When firing distillate, the underlying emission limits are based on CEMS and, therefore, the requirements of CAM are not required pursuant to 40 CFR 64.2(b)(vi).

#### Attachment A

#### Title V Core List – Effective 3/01/02

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

#### Federal: (description)

40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.

40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).

40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: (description)

#### CHAPTER 62-4, F.A.C.: PERMITS, effective 06-01-01

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 06-21-01

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.

### CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-21-01 (continued)

- 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.
- 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(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.
- 62-210.400, F.A.C.: Emission Estimates.
- 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 Title V Source, 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 08-17-00

### Chapter 62-213, F.A.C.: Operation Permits for Major Sources of Air Pollution, effective 04-16-01

- 62-213.205, F.A.C.: Annual Emissions Fee.
- 62-213.400, F.A.C.: Permits and Permit Revisions Required.
- 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

#### CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-02-99

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

### **CHAPTER 62-297, F.A.C.:** STATIONARY SOURCES - EMISSIONS MONITORING, effective 03-02-99

62-297.310, F.A.C.: General Test Requirements.

62-297.330, F.A.C.: Applicable Test Procedures.

62-297.340, F.A.C.: Frequency of Compliance Tests.

62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions Unit.

62-297.350, F.A.C.: Determination of Process Variables.

62-297.570, F.A.C.: Test Report.

62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

#### Miscellaneous:

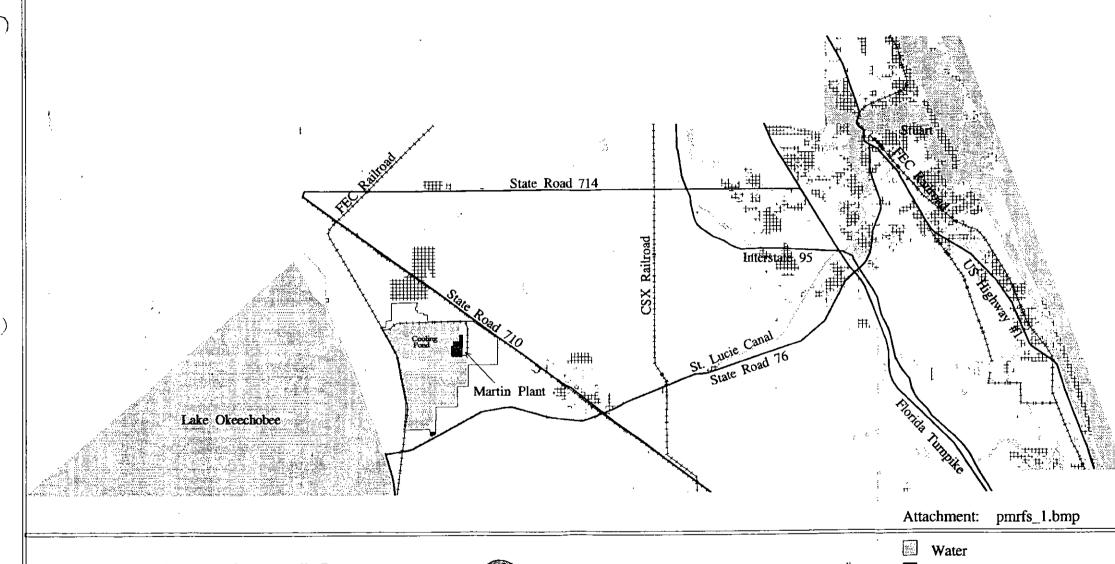
CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests

CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98

CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 11-30-94

CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 02-09-99

**CHAPTER 62-281, F.A.C.:** Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling, effective 09-10-96



Martin Plant Area Map
Martin County





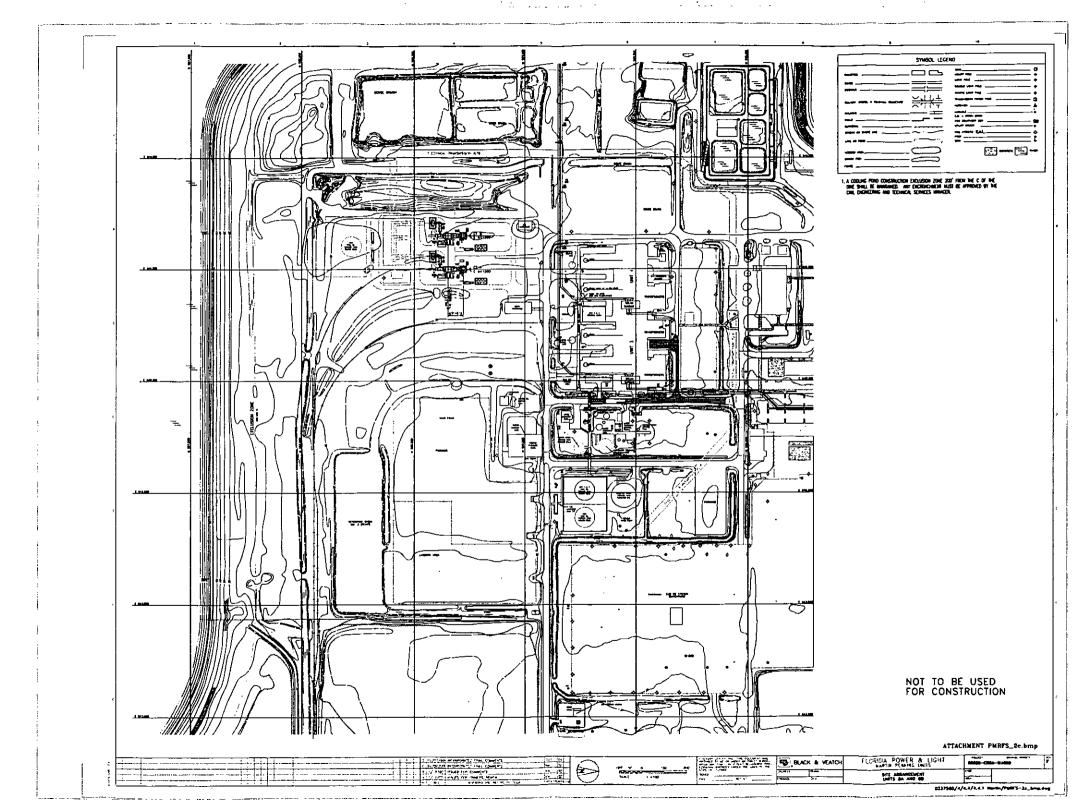
Electrical Power Facility

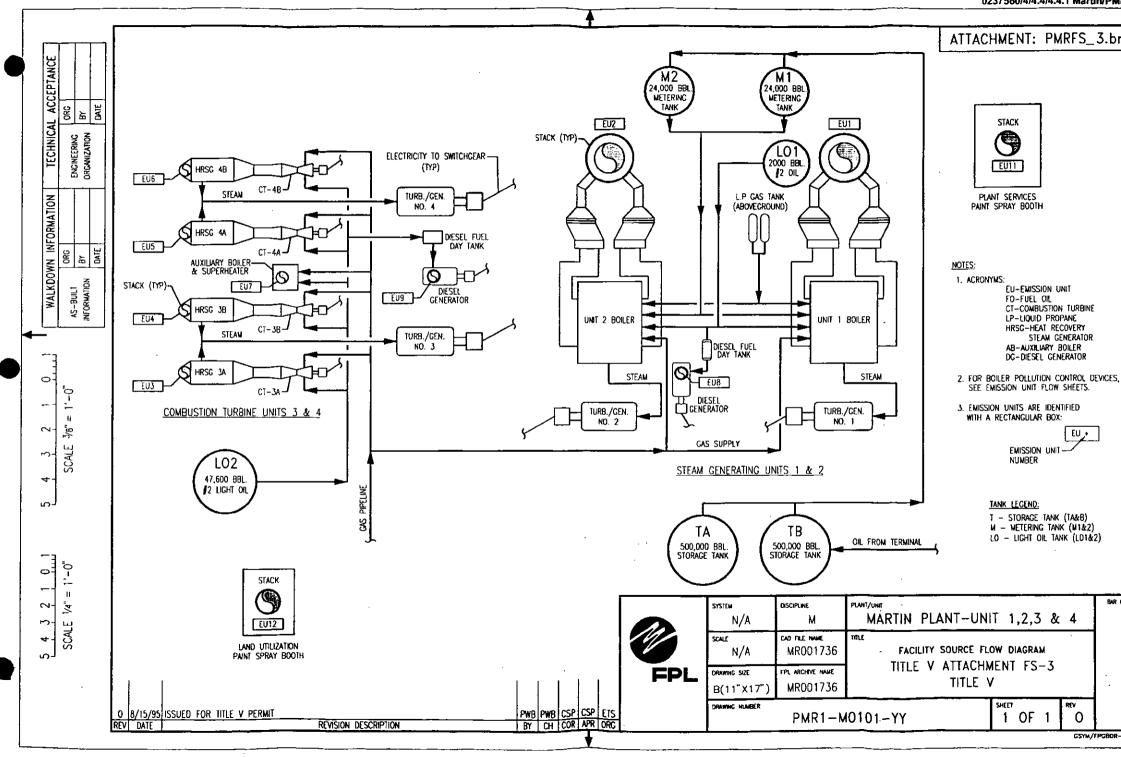
Residential Area

Major Roads

Railroads

port/homo/ros/prin_site_map (1-95)





# **Attachment PMRFS-4.txt**

# Precautions to Prevent Emissions of Unconfined Particulate Matter

The facility has negligible amounts of unconfined particulate matter as a result of operation of the facility. Potential examples of particulate matter include:

- Fugitive dust from unpaved roads
- Sandblasting abrasive material from plant maintenance activities
- Fugitive particulates from the use of bagged chemical products (soda ash, di-, tri- and monosodium phosphate, and other chemicals as needed)

Several precautions were taken to prevent emissions of particulate matter at the facility including:

- Paving of roads, parking areas, and equipment yards
- Landscaping and planting vegetation

Operational measures are undertaken at the facility which also minimize particulate emissions, in accordance with 17-296-310 F.A.C.:

- Use of thick poly flaps over the doorways to prevent any sandblasting material from leaving the sandblast facility. The facility also constructs temporary sandblasting enclosures when necessary, in order to perform sandblasting on fixed plant equipment
- Maintenance of paved roads as needed
- Regular mowing of grass and care of vegetation
- · Limiting access to plant property by unnecessary vehicles
- Bagged chemical products are stored in weather tight buildings until they are used.
   Spills of any powdered chemical products are cleaned up as soon as practicable
- Vehicles are restricted to slow speeds on the plant site

# **Attachment PMRFS-5.txt**

# **Fugitive Emission Identification**

# Criteria and Precursor Air Pollutants

Fugitive particulate emissions are addressed in Attachment PMRFS_4.txt. FPL is not aware of fugitive particulate emissions of Sulfur Dioxide, Nitrogen Oxides or Carbon Monoxide that would exceed the reporting thresholds defined in the permit application instructions.

## Fugative HAP's Emissions

FPL is not aware of fugitive emissions of HAP pollutants that would exceed the reporting thresholds defined in the permit application instructions.

# **Attachment PMRFS-8.txt**

# List of Exempt Emissions Units and/or Activities

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

1	Natural Gas Metering Area Relief Valves			
2	Hydrazine Mixing Tank			
3	Lube Oil Vapor Extraction Vents			
4	Lube Oil Dump Tank Vent			
5	Oil Separation Basin			
6	Hazardous Waste Building			
7	Paint/Lube Building			
8	Miscellaneous mobile vehicle operation			
9	Evaporation of Boiler Chemical Cleaning Waste			

# **Attachment PMRFS-9.txt**

# **Equipment/Activities Regulated Under Title VI**

The Martin facility currently has more than 100 refrigeration and air conditioning units on site. Of these, nine air conditioning units currently meet the 50 pound threshold established by 40 CFR 82 for regulated Class 1 and Class 2 substances:

<u>Unit</u> Trane Model CGACC804RLNJJ423DG7VFM	<u>Location</u> PMG Service Building	Pounds CFC 143
York Model YCAZ77LES/46XR	PMG Service Building	112
Trane Model SSZA3004HF54C54DFO	PMG Service Building	64
Trane Model SSZA3004HF54C54DFO	PMG Service Building	64
Trane Model SAC1504A	PMG Control Building	67.6
Trane Model SAC1504A	PMG Control Building	67.6
Trane Model SAC1504A	PMG Control Building	67.6
Trane Model SAC1504A	PMG Control Building	67.6
Trane Model SAC1504A	PMG Control Building	67.6

#### **Attachment PMRFS-11.txt**

# **Alternative Methods of Operation**

#### Conventional Fossil fuel-fired Boiler Units 1 and 2

#### Operation at Various Capacities

The two conventional fossil-fuel boilers at the Martin plant site may be operated up to 8,760 hours per year at heat input rates from zero to 100% of maximum.

#### Different Fuel Types and heat input rates

The units burn low sulfur fuel oil containing a maximum of 0.7% sulfur (by weight), natural gas, or a mixture of low sulfur fuel oil containing a maximum of 1.0% sulfur by weight and natural gas in a ratio which will result in a maximum sulfur dioxide emission rate of 0.80 lbs/MMBtu heat input. The units' heat inputs are each 8,650 MMBtu/hr on oil and 9,040 MMBtu/hr on natural gas. When a blend of fuel oil and natural gas are burned, the heat input is prorated based upon the percent heat input of each fuel. The units may also burn on-specification used oil meeting EPA specifications under 40 CFR 266.40.

#### Soot Blowing/Auxiliary Equipment

The unit may blow soot for up to 24 hours per day, so long as this does not result in excess emissions. (Excess emissions during soot blowing are not allowed for NSPS Subpart D units). Other activities such as operation of the boilers' steam coils, boiler steam lances and air preheater and dust collector wash equipment is undertaken as needed in order to maintain the boilers' cleanliness.

#### Utilization of Magnesium Oxide

Magnesium oxide (MgO, or "magox") is added to the boiler periodically at various loads. The MgO slurry is injected into the boiler via the I.K. soot blower lances and through manual hand lances on a batch basis, rather than continuously. The dosage rate is based on the quantity of fuel burned and the amount of ash in the fuel.

#### Off-Stoichiometric Combustion

This technique involves operating the burners at fuel-rich mixture ratios. The proportion of fuel burned at peak temperatures in the presence of excess air is reduced and consequently NOx emissions are lowered. At Martin, the method for performing off-stoichiometric combustion is to terminate the fuel flow to selected burners and utilize these burners as air ports. The other burners are then operated at a fuel-rich mixture ratio. This is also known as a bias-firing scheme.

#### Flame Temperature Reduction

This approach utilizes two gas injection fans to recirculate the flue gases and mix these gases with the combustion air. The recirculated gases act as an inert, absorbing a part of the energy released in combustion and reducing the peak temperatures achieved. Controlling and generally reducing the high temperature conditions that would otherwise occur, significantly reduces the formation of nitrogen oxide.

#### Combined-Cycle Units 3 and 4

#### Operation at Various Capacities

The two combined-cycle units at the Martin power plant site may be operated up to 8760 hours per year at heat input rates from zero to 100% of maximum.

#### Different Fuel Types and heat input rates

The units currently burn primarily natural gas, with light distillate oil as a backup fuel. At a later date, coal-gasification equipment may be added at the plant site. Per the existing PSD permit (PSD-FL-146) the maximum heat input to each CT shall neither exceed 1,966 MMBtu/hr (@ 40 deg. F) while firing natural gas, nor 1846 MMBtu/hr while firing light distillate oil (@ 40 deg. F). Operation on distillate oil is currently limited to 2,000 hours per year. For coal-derived gas firing the maximum heat input to each CT shall not exceed 2100 MMBtu/hr (@ 75 deg. F). Note that the heat input rate varies with ambient temperature.

#### Power Augmentation

At higher ambient temperatures (> 40 deg. F)the combined-cycle combustion turbines may be operated in power augmentation mode; that is, while steam or water is injected into the combustion area of the turbine. Current emissions limitations and heat input limits will not be exceeded while operating in either mode of operation. This mode of operation will increase megawatt output to low ambient conditions. The power augmentation mode from a combustion viewpoint is no different from standard operation. All emission limits are based on with and without power augmentation.

#### Simple-Cycle Units 8A and 8B

#### Operation at Various Capacities

Each simple-cycle units at the Martin power plant site may be operated up to 5,902.6 mcf natural gas or 4,965.1 mcf natural gas and 7,358 kgal distillate oil in any 12 month period at heat input rates from zero to 100% of maximum.

#### Different Fuel Types and heat input rates

The units currently burn primarily natural gas, with light distillate oil as a backup fuel. Per the existing PSD permit (PSD-FL-286) the maximum heat input to each CT shall neither exceed 1,920 MMBtu/hr (@ 35 deg. F)while firing natural gas, nor 2008 MMBtu/hr while firing light distillate oil (@ 35 deg. F). Operation on distillate oil is currently limited to 7,358 kgal per year. Note that the heat input rate varies with ambient temperature.

#### Power Augmentation and Peaking

At higher ambient temperatures (> 40 deg. F)the simple-cycle combustion turbines may be operated in power augmentation mode; that is, while steam or water is injected into the combustion area of the turbine. Additionally, the turbines can also be operated at higher exhaust temperature modes for no more than 60 hours in any 12 month period. Current emissions limitations and heat input limits will not be exceeded while operating in either mode of operation.

# **Attachment PMRFS-14.txt**

# Martin Plant Compliance Report and Plan

This facility and emissions units identified in this application are in compliance with the Applicable Requirements identified in Sections II. B. and III. D. of the application form and attachments referenced in Section III. L. 12 (if included). Compliance is certified as of the date of this application is submitted to the Florida Department of Environmental Protection as required in Rule 62-213.420(1)(a) F.A.C.



# Department of Environmental Protection

# **Division of Air Resource Management**

#### STATEMENT OF COMPLIANCE - TITLE V SOURCE

REASON FOR SUBMISSION (Check one to indicate why this	statemer	at of compliance is being submitted
☑ Annual Requirement (Partial) ☐ Transfer of Permit	С	Permanent Facility Shutdown
REPORTING PERIOD*		REPORT DEADLINE**

REPORTING PERIOD* REPORT DEADLINE**

| January 1 | through | March 7 | of 2003 | (year) | July 1, 2003 |

Facility Owner/Company Name:	FLORIDA POWER & LIGHT COMPANY
• • •	

Site Name: MARTIN PLANT Facility ID No. 0850001-007-AV County: MARTIN

#### 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.
- **X 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.*

#### * SEE ATTACHMENTS

- C. This facility was in compliance with all terms and conditions of the Title V Air Operation Permit and, if applicable, the Acid Rain Part, EXCEPT those identified in the pages attached to this report and any reportable incidents of deviations from applicable requirements associated with malfunctions or breakdowns of process, fuel burning or emission control equipment, or monitoring systems during the reporting period identified above, which were reported to the Department. For each item of noncompliance, the following information is included:
- 1. Emissions unit identification number.
- 2. Specific permit condition number (note whether the permit condition has been added, deleted, or changed during certification period).
- 3. Description of the requirement of the permit condition.
- 4. Basis for the determination of noncompliance (for monitored parameters, indicate whether monitoring was continuous, i.e., recorded at least every 15 minutes, or intermittent).
- 5. Beginning and ending dates of periods of noncompliance.
- Identification of the probable cause of noncompliance and description of corrective action or preventative measures implemented.
- 7. Dates of any reports previously submitted identifying this incident of noncompliance.

1

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.

DEP Form No. 62-213.900(7)

Effective: 6-02-02

^{*}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.

#### 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.

k	with face	des		3-7-03
(Signature	e of Title V Source	Responsible Official)		(Ďate)
Name:	Keith Hardy		Title: Plant Gener	al 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.

_ Mancy m Keerske		4-7-03
(Signature of Acid Rain Source Designated	Representative)	(Date)
Name: Nancy M. Kierspe	Title: Designated	Representative

{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).}

# Attachment STATEMENT OF COMPLIANCE - TITLE V SOURCE PERMIT NO. 0850001-007-AV

For instances of opacity exceedance events, please refer to the log sheet fax transmissions during the year 2003.

The log sheet fax reports were dated 01/09/2003, 1/15/2003, 01/22/2003, 02/15/2003

Routing				FLORIDA POWER & LIG		
Mid Ptt Foreman		Simon		MARTIN POWER PLA	NT	
Day Pit Foreman		PROPER		Excess Emissions Report f	or Opacity	Unit Status:
Day Fit Foremen		SKYPER YATUS		·		
Mid Pit Foreman		BENNYKOFIFIE	2			Time On Line:
Env Spec		, )		Unit: PMR 1	Date: 01/09/03	
		<u> </u>			· · · · · · · · · · · · · · · · · · ·	Time Off LFC
Total Number (Total of all 6		Specific 6 Min. Periods within Total	Opacity Level(s) and cause code	Immediate Corrective	Cause of Incident	Preventative Action
Min. Avgs.	TOR	Excess Emissions Time	for each	Action	Heiden	Action
Above Limits)	OPERATO	(List as Time of Day	6 minute average and the name		·	
	0	Start/Stop)	of the operator			
	_	21:07-77:11	during the event.	CHECKED FURNACE	11115 055 11015 11 5:05	
3	58.4X.	2/106-2/11 2/12-2/17 2/18-2/13	3290 3590 2372	rTANTION LOOKING	OPACITY STANTED UP. BATES	
	<i>A</i> ,	21-18-21:33	7.9 /2	FOR TUBE LEAK STHEE,	74 03	
	~			FOR TUBE LEAK FOUND LEAK GTHEW, STANTED COUNT BOLLEN FOR REPAIN		
				resemine		
			<u> </u>			
· · · · · · · · · · · · · · · · · · ·						
		:				
					-	
		I = Startup J = Shutdown	M = Process Melfunction - R	equires PWO	Use Pen Only	

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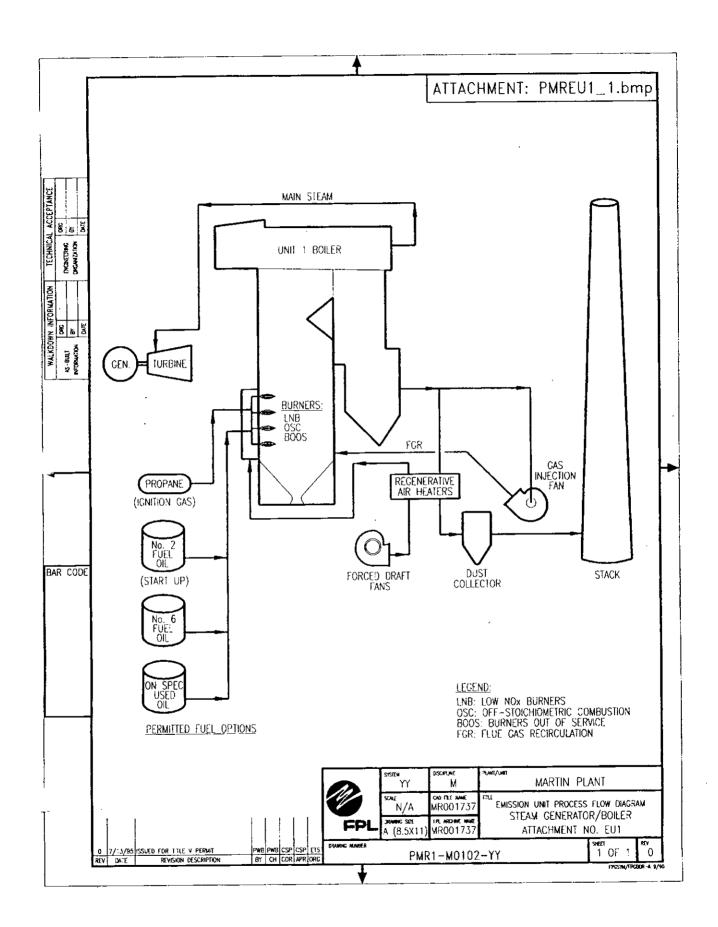
Routing			<del>.</del>	FLORIDA POWER & LIGI	HT COMPANY	
Mid Pit Foreman		1/9-65	.,,	MARTIN POWER PLA	NT	
Day Pit Foreman		Hildreth	,	Excess Emissions Report f	or Opacity	Unit Status:
Mid Pit Foreman		yaks				Time On Line: O
Env Spec		<i>'</i>		Unit: PMR 2	Date: <u>01/15/03</u>	Time Off LFC
Total Number (Total of all 6 Min. Avgs. Above Limits)	OPERATOR	Specific 6 Min, Periods within Total Excess Emissions Time (List as Time of Day Start/Stop)	Opacity Level(s) and cause code for each 6 minute average and the name of the operator during the event.	Immediate Corrective Action	Cause of Incident	Preventative Action
1	ડર્ફ	04:54 04:59	62	Held load, Increase 02 Removed #8 Burner	Putt & Burner in service and it failed Burner # & Removed from service, nav gun put in service and openity Cleared	old our sent to reint. for Analysis - repair.
1	SE	06:00	27	Heldlood, Rassedair	Hadto force # 17 + # 18 ignitor in the prosess it upset the Boiler	
/ -	<i>-</i> 1. I	06:42	,	control. Adjusted Air	Unit puffing on load ramp	
	10	07:24 07:30	23	Droplord. Took unit off control Raised air. Moved Do	Load Ramp. Temp Controls in hand. Controls dept swinging.	
,1	6	09:00	21	Moved dampers, guns. Raised air	Load Ramp & Controls Swinging again.	Controls dept tuned (adjusted) temp Controls.
		I = Startup J = Shutdown	M = Process Malfunction - R	Requires PWO	Use Pen Only	

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Routing				FLORIDA POWER & LIG	SHT COMPANY	
Mid PII Foreman		HILDNE+H		MARTIN POWER PLA		Unit Status: RAW
Day Pit Foreman		FRED		Excess Emissions Report	for Opacity	
Mid Pit Foreman		HILDRETH			4.4	Time On Line:
Env Spec		ξ, ψ		Unit: PMR 2	22 Date: <u>01/<del>23/</del>03</u>	Time Off LFC
Total Number (Total of all 6 Min. Avgs. Above Limits)	OPERATOR	Specific 6 Min. Periods within Total Excess Emissions Time (List as Time of Day Start/Stop)	Opacity Level(s) and cause code for each 6 minute average and the name of the operator during the event.	Immediate Corrective Action	Cause of Incident	Preventative Action
1	N1 US RG	06:30/	28	STOPPED LOAD ADT. HIR	SH AND RIA DAMPERS NOT CONTROLLING IN AUTO, TEAPERTURES ARE UNSTABLE. OPALITY IN CREASE WHILE DAMPERS OPENED	REQUEST BOSWORTH LOOK AT UNIT TUNING.
1	DA	06:48 06:53	33	LOWERED LOAD CHANGED BURNER PATTERN READJUST SH PAMPER	TEMPERATURE, AIR AND FUEL NOT CONTROLLING	
1	×	07:30 07:36	22	PEMOVED 29-30 OIL GUNS. ALLOW BOILER TO SETTLE	PUT OIL BURNERS 27-30 OIL GUINS IN SERVICE	IN DROGA 635 1/22/02 05
2	19	08 CE	21	GAS BACK IN	CONTROLS ARE NOT RESPONDED FUEL IS MOVING AROUND TRYING TO REMOVE GAS GUNS, OPACITY TNUREASED.	
1.	R	11.02 N 02	28	OPENED FO DAMPER to 20%	BIASING FANS AND CLOSING FO FAN DAMPERS FOR APH WASH L FUEL SWING	
2	35	19:06- 19:11 19:12-19:17	22	stepped load ste Settled out Boiler	Tuning S/H - RH Pampers	
	K. J.		21	lowered load	Trying to Raise load SIH+R/H Dimpers, Combustion problems	
	4	I = Startup	M = Process Malfunction -	Requires PWO	Use Pen Only	

I = Startup J = Shutdown

Routing	L			FLORIDA POWE	R & LIG	HT COMPANY	
Mid Pit Foreman		SKUPEL		MARTIN PO	WER PLA	ANT	
Day Pit Foreman		UATES		Excess Emissions	s Report f	for Opacity	Unit Status: Ran
Mid Pit Foreman		5x DOR					Time On Line
Env Spec		, ,		Unit: <u>PM</u> I	₹ <b>2</b>	Date: <u>02/15/03</u>	Time Off LFC
Total Number (Total of all 6 Min. Avgs. Above Limits)	OPERATOR	Specific 6 Min. Periods within Total Excess Emissions Time (List as Time of Day Start/Stop)	Opacity Level(s) and cause code for each 6 minute average and the name of the operator during the event.	Immediate Corrective Action		Cause of Incident	Preventative Action
3	biech	m 0424-0419 0430-0435 0454-0459	30 23 32	LUCLOBOD EXESS BLAS BURNETS TO ADD OZ TO OF BOILEN THEN	02 IMUPOS 6.DE 1455MOX	SUSPECT #8 OIL EUN TIP CONKING AFTEN #8 OIL EUN REMOUED + REPURCH ENG OPACITY DROPPED TO 3% AFTEN WAIKING down Boilen Found than 24 APM MARKE WASH WASH LANCE TEAKING THAN	PULLING OUT  #8 OIL FUN & CHANGEDOUT
3	G S	7:12	33 37 31	INSPECTED Boilen Clear STACK Clear STACK Clear BOAD RAISED AIR N Coms conputen Ac	te, Hall o Help Ting up	AFTER WALKING down Boiler Found than 2A APH supper with LANCE leaking than I'C Found Al Duct lense very Dir	PWO'd WASY LANCE \$31310
<u></u> _		l = Startup J = Shutdown	M = Process Malfunction - R	equires PWO		Use Pen Onty	



# **Attachment PMRU1-2.txt**

# **Fuel Analysis**

# Natural Gas Analysis (typical)²

<u>Parameter</u>	Typical value	Max value	
Specific gravity(@ 60° F)	0.887	none	
Heat content (Btu/cu ft)	950 - 1124	none	
% sulfur (grains/CCF)	0.43 ¹	1 grain / ccf	
% nitrogen (by volume)	0.8	none	
% ash	negligible	none	

*Note: The values listed are "typical" values based upon information supplied to FPL by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

- (1) Data from laboratory analysis
- (2) The values are "typical" based upon the following:
  - · Information gathered by FPL through laboratory analysis, and
  - FPL's fuel purchasing specifications. It should be noted that the analytical results obtained from grab samples taken at any given time may vary from those listed.

# No.6 Oil Analysis (typical)4

<u>Parameter</u>	Typical value	Specifications
API gravity (@ 60° F)	6 - 12	none
Heat content(MBtu/bbl)	6,310 - 6420	6,340 ¹
% Sulfur	0.7	1.0 max ³
% Nitrogen	$0.2 - 0.5^2$	none
% Ash	0.06 <b>-</b> 0.09 ²	0.10 max ¹

#### Footnotes:

- (1) Data taken from FPL fuel specifications.
- (2) Data taken from laboratory analysis.
- (3) Maximum permitted from current air operation permit when co-fired with natural gas.
- (4) The values are "typical" based upon the following:
  - · Information gathered by FPL through laboratory analysis, and
  - FPL's fuel purchasing specifications. It should be noted that the analytical results obtained from grab samples taken at any given time may vary from those listed.

# No. 2 Distillate oil (typical)³

Parameter	Typical value	Specifications
API gravity (@ 60 F)	$35.0^{2}$	30 - 40 ¹
Heat content (MBtu/bbl)	5,700 - 5,800 ²	none
% sulfur	0.3 - 0.5 ¹	0.5 maximum ¹
% nitrogen	no specification	none
% ash	<0.01 ²	0.01 ¹

#### Footnotes:

- (1) Data taken from FPL fuel specifications.
- Data taken from laboratory analysis.
- (3) The values are "typical" based upon the following:
  - Information gathered by FPL through laboratory analysis, and purchase specs.

#### **Attachment PMRU1-2.txt**

# **Fuel Analysis**

#### Propane (typical)¹

Emission unit #1 may occasionally light off (start up) on propane fuel, then switch to another fuel, such as No.6 residual oil. The propane fuel is supplied by a commercial vendor and is stored in small tanks located at the bottom of the boiler area. The chemical formula for propane is  $C_3H_8$ .

Parameter	Typical value	Specifications	
Specific gravity (@ 60 F)	0.51	none	
Heat content (MBtu/bbl)	600 - 1,000	none	
% sulfur	0.0031	none	
% nitrogen	no specification	none	
% ash	no specification	none	

#### Footnotes:

- (1) The values are "typical" based upon the following:
  - Information gathered by FPL through laboratory analysis, and
  - FPL's fuel purchasing specifications. It should be noted that the analytical results obtained from grab samples taken at any given time may vary from those listed.

#### On Specification Used Oil

The boiler may occasionally burn used oil during normal operation. All used oil fired in the unit meets the specifications mandated by 40 CFR 279.11. Used oil fired by this boiler is typically derived from plant maintenance activities, and may include used lube oils, transformer oils, etc. that meet the analytical specifications. Criteria for used oil follows:

<u>Parameter</u>	Typical value	Specifications	
API gravity (@ 60 F)	30.0 ¹	none	
Heat content (MBtu/bbl)	6,000 ¹	none	
% sulfur	$0.3^{1}$	none	
% nitrogen	negligible	none	
% ash	0.01	0.01	

#### Footnotes:

- (1) The values are "typical" based upon the following:
  - Information gathered by FPL through laboratory analysis, and
    - FPL's fuel purchasing specifications. It should be noted that the analytical results obtained from grab samples taken at any given time

#### **Attachment PMRU1-3.doc**

# **Detailed Description of Control Equipment**

**A. Cyclone Separator** - This steam generator (boiler) is supplied with two 104B-GHS #19-684 UOP tubular mechanical dust collectors with side inlet and universal outlet. Each dust collector consists of 695 tubes and four dust collection hoppers. The dust collector has the following efficiency at 2.55 inches of water @ peak load:

Particle Range (micron)	Mean Diameter (micron)	Estimated Efficiency (percent)
0 - 5	2.5	30.3
5 - 10	7.5	66.2
10 - 20	15	88.6
20 – 45	32.5	99.1
45 +	45	99.5

#### B. Flue Gas Recirculation - Nitrogen oxides reduction

#### Purpose

The boiler design incorporates the techniques of flame temperature reduction and off-stoichiometric combustion designed to reduce and maintain the nitrogen oxides stack gas emissions below the boiler manufacturer's guaranteed maximum levels and below that maximum allowed by pollution control agencies.

The gas injection control system regulates the gas injection fan speeds and the associated dampers to control the amount of recirculated gas that will be mixed with the air flow to the boiler. By mixing recirculated gas with the air, the flame helps to reduce the formation of NOx. The gas injection control loop has two subloops; gas injection fan speed control and gas injection fan interlocks.

#### Gas Injection Fan Speed Control

The gas injection fan speeds are individually regulated to provide the proper amount of fuel gas injection into the boiler's air supply. There are two gas injection fans each providing injection to the discharge of one of the air preheaters. Steam flow (a load index) developed from first stage pressure is used to develop a base demand for gas injection from each fan. The gas injection for each fan can be biased as required for balanced operation. Also, each demand is limited according to the air flow to which the flue gas will be mixed. Thus if an forced draft (FD) fan is removed from service or operating at a reduced load, the high limit will prevent excessive flue gas from being mixed with the low air flow.

# **Attachment PMRU1-3.doc**

# **Detailed Description of Control Equipment**

The demand for gas injection for each fan is compared to each fan's actual gas injection. Any error between demand and actual flue gas flow causes a proportional plus integral controller to readjust the associated fan's speed. To prevent erroneous control action from attempting to exceed the maximum fan load, a low select is employed. Fan amps are compared to the maximum allowable fan amps. When actual fan amps exceed the maximum allowable, the low select will choose the fan amp signal, and fan speed will be controlled to maintain the maximum load until the normal control requests a lower fan speed.

#### D. Flame Temperature Reduction

This approach utilizes two gas injection fans to recirculate the flue gases and mix these gases with the combustion air. The recirculated gases act as an inert, absorbing a part of the energy released in combustion and, thereby, reducing the peak temperatures achieved. Controlling and generally reducing the high temperature conditions that would otherwise occur significantly reduce the formation of nitric oxide.

#### E. Staged Combustion

This technique involves operating the burners at fuel-rich mixture ratios. The proportion of fuel burned at peak temperatures in the presence of excess air is reduced and consequently NOx emissions are lowered. The remaining air required to maintain the overall furnace stoichiometry is introduced through overfire air ports located above the top row of burners.

A second way of operating the burners at a fuel-rich mixture ratio is to terminate the fuel flow to selected burners and utilize these burners as air ports. The other burners would be operated at a fuel-rich mixture ratio. This is called a bias-firing scheme.

#### FLORIDA POWER & LIGHT CO. STACK SAMPLING FACILITIES MARTIN SITE

FOSSIL FUEL STEAM GENERATORS UNITS 1 & 2

# STACK DIAGRAM STACK SPECIFICATIONS SAMPLING DIAMETER: 357.8 in. SAMPLING AREA: 697.5 eq. ft. SAMPLING PORT DEPTH: 30 1/4 in. No. OF PORTS: 4 No. OF POINTS PER TRAVERSE: 6 TOTAL No. OF POINTS: 24 SAMPLING TIME PER POINT: 2.5 min. TOTAL SAMPLING TIME: 60.0 min. NOTE: DRAWING IS NOT TO SCALE PARTICULATE SAMPLING PROBE DIAGRAM 377 500 cL 37 3/4 SAMPLE PORTS & PLATFORM 0 37 3/4" 18 1/2" 54 1/4 ° 18 1/4" 72 1/2" 123 21 1/8 26 1/6" 119 3/4 37 7/8

Access to the sampling ports is provided by a ladder. Channel iron with a trolley system is above each port for probe support. AC power is available on the platform and at the base of thestack.

157 5/6

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# Attachment PMRU1-6.txt

# Startup & Shutdown Procedures - Minimizing Excess Emissions

Startup of the fossil-fuel boiler begins when fuel (either natural gas or oil) is introduced into one or more burners within the boiler and lighted (commencement of combustion). Startup is complete and steady-state operation begins when the combustion process has stabilized and the megawatt load on the unit is stable.

Shutdown of the fossil-fuel boilers begins when unit megawatt load is decreased to below 10% of maximum and continues until the final burner gun is removed from service and the final Induced-draft or Forced-draft fan is removed from service.

Excess emissions may be detected during all modes of boiler operation by any one of several continuous emissions monitors. Continuous emission monitors are currently in place for NO_x, SO₂ and opacity. An audible and visual alarm are activated whenever permitted values for any of the above parameters are approached.

Countermeasures which may be taken in the event of excess emissions include, but are not limited to:

- · proper excess air adjustments
- recognizing and removal of faulty burners
- fuel oil temperature adjustments
- proper and timely operation of boiler cleaning devices
- removal of the unit from system-dispatch mode
- reduction of unit megawatt load
- stopping and restarting of boiler cleaning devices
- lowering load rate
- pressure rate changes

Best Operational Practices to prevent excess emissions, and knowledge of the appropriate countermeasures to take if an excess emissions condition exists, are taught during routine operator training.

# **Attachment PMRU1-11.txt**

# Alternative Methods of Operation

#### Operation at Various Capacities and Heat Input Rates

The Martin Unit 1 boiler may be operated up to 8760 hours per year at heat input rates from zero to 8,650 MMBtu per hour on No.#6 oil, and from zero to 9,040 MMBtu per hour on natural gas. When a blend of fuel oil and natural gas are burned, the heat input is prorated based upon the percent heat input of each fuel.

#### <u>Different Fuel Types</u>

The unit may be fired with a variable combination of No. 6 residual fuel oil, natural gas, or No. 2 fuel oil. Current emissions limitations are as follows:

<u>Pollutant</u>	Emission Limit
Particulate matter: steady-state	0.1 lb/MMBtu
Particulate matter: sootblowing	0.3 lb/MMBtu
Sulfur Dioxide	0.8 lb/MMBtu
Nitrogen Oxides(oil)	0.3 lb/MMBtu (3-hour rolling average)
Nitrogen Oxides(gas)	0.2 lb/MMBtu (3-hour rolling average)

#### **Soot Blowing**

The unit may blow soot for up to 24 hours per day, so long as excess emissions are limited to 27% opacity for 6 minutes/hr.

#### <u>Utilization of Additives</u>

When residual oil is fired, various additives such as Magnesium hydroxide (MgOH) are added to the boiler on a continuous basis. This material is typically added to the fuel oil just prior to its being fed into the furnace, but it may also be injected into the boiler via manual hand lances on a batch basis, rather than continuously. The dosage rate is based on the quantity of fuel burned and the amount of ash in the fuel. FPL reserves the right to use other additives if they are suitable.

#### **Evaporation of Spent Boiler Chemical Cleaning Chemicals**

On a periodic basis, as part of routine maintenance, the inside of the steam generator tubes (boiler tubes) at Martin Unit 1, 2, 3, 4, & 8 are cleaned using a series of chemical solutions that remove deposited scale which adversely affects the efficiency and reliability of the generating units.

The solutions and rinsewaters are collected in large mobile tanks ("frac tanks") pursuant to guidance issued by the Department. Upon completion of the cleaning process and prior to disposal of the spent cleaning solution and rinses, representative sampling of the liquids collected in the "frac tanks" is conducted as per 40 CFR 261, Appendix I, to determine the hazardous waste status of the accumulated wastewater, using Toxicity Characteristic Leaching Procedure (TCLP) analysis. If the wastewater is determined to be hazardous, it will be managed as such in accordance with 40 CFR 262.34, 40 CFR 265 Subpart I, and 40 CFR 268 with respect to generators accumulating and treating waste in containers and tanks. An appropriate waste analysis plan will be developed to determine and document the pre- and post-treatment characteristics of the wastewater. Hazardous waste may also be transported to an approved hazardous waste facility for the appropriate disposal.

# **Attachment PMRU1-11.txt**

# **Alternative Methods of Operation**

If the spent cleaning solution and rises are determined to be non-hazardous, they are then disposal by evaporation in the unit's boiler. Introduction into the boiler will occur at a rate that will not cause an exceedence of the opacity limit of the unit in which evaporation is occurring (in this case, 20 percent opacity).

# **Attachment PMRU1-13.txt**

# **Identification of Additional Applicable Requirements**

Applicable Requirements as defined in Rule 62-210.200(29) not identified in Section D of this emission unit section are included in this attachment of the application. Any air operation permit issued by the Department (or local program designee) and included in this attachment is provided for information purposes. The specific conditions of the operating permit are not Applicable Requirements as defined in Rule 62-210.200(29) unless implementing a specific Applicable Requirement of the Department's rules (e.g. emission limitations and consent orders).

Air operation permit No. AO43-170568 contains the following conditions:

- 1. Heat input rate for Unit 1 is not to exceed 8,650 mmBtu/hour while burning No.6 residual fuel oil, and 9,040 mmbtu/hour when firing natural gas. FPL tracks heat input using fuel sampling and analysis and fuel flow measurement.
- 2. The boiler shall be fired with a variable combination of No.6 residual fuel oil, natural gas, No.2 fuel oil, propane gas or on-specification used oil from FPL operations. FPL tracks the fuel usage on a daily basis.
- 3. The maximum allowable emissions for Unit 1 are as follows:

Pollutant	Fuel	Emission Limit	Test Method
Particulate Matter - Steady-State Soot Blowing or Load Changing.	Oil Oil	0.1 lb/mmBtu 0.3 lb/mmBtu (3 hrs/24 hrs.)	EPA Method 5 or 17 EPA Method 5 or 17
Sulfur Dioxide -	Oil	0.8 lb/mmBtu	Monthly Fuel Analysis
Nitrogen Oxides -	Oil Gas	0.30 lb/mmBtu 0.20 lb/mmBtu 3 HR ROLLING AVERAGE	CEMS CEMS
Visible Emissions - Steady-State Soot Blowing or Load Changing.	Oil Oil	20 percent opacity 27 percent opacity (6 min/hr.)	DEP Method 9 DEP Method 9

FPL conducts annual compliance testing to determine compliance with the emission limitations. However, in the case of NOx emissions, FPL has opted to used the CEMs as the compliance determination method.

# **Attachment PMRU1-15**

Phase II Acid Rain Part Application

# Phase II Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72:30 and 72:31 and Chapter 62-214, F.A.C.

This submission is: New

Revised

STEP 1 Identify the source by plant name, State, and ORIS code from NADB

Plant Name MARTIN Plant State FL ORIS Code 6043

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

Compliance Plan đ Unit ID# Unit will Repowering **New Units New Units** hold allowances Plan in accordance with 40 CFR Commence Monitor 72.9(c)(1) Operation Date Certification Deadline

			Deaumie
	NO	N/A	N/A
Yes			
	NO	N/A	N/A
Yes			
	NO	N/A	N/A
Yes			
	NO	N/A	N/A
Yes			
•	NO	N/A	N/A
Yes			
	NO	N/A	N/A
Yes			l
	NO	N/A	N/A
Yes		]	[
	NO	N/A	N/A
Yes			
Yes			
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Yes			
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Yes			
		,	1
Yes			
	Yes Yes Yes Yes Yes	Yes         NO           Yes         NO           Yes         NO           Yes         NO           Yes         NO           Yes         NO           Yes         Yes           Yes         Yes           Yes         Yes	Yes         NO         N/A           Yes         NO         N/A           Yes         NO         N/A           Yes         NO         N/A           Yes         NO         N/A           Yes         NO         N/A           Yes         Yes         Yes           Yes         Yes         Yes

STEP 3 Check the box if the response in column c of Step 2 is "Yes" for any unit For each unit that is being repowered, the Repowering Extension Plan form is included.

STEP 4 Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Plant Name (from Step 1)

#### **MARTIN Plant**

#### Standard Requirements

#### Acid Rain Part Requirements

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

#### Monitoring Requirements.

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

#### Sulfur Dioxide Requirements.

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

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

#### **Excess Emissions Requirements**

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

#### Recordkeeping and Reporting Requirements

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

#### Recordkeeping and Reporting Requirements (cont)

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

#### Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8 or 72.14, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_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, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

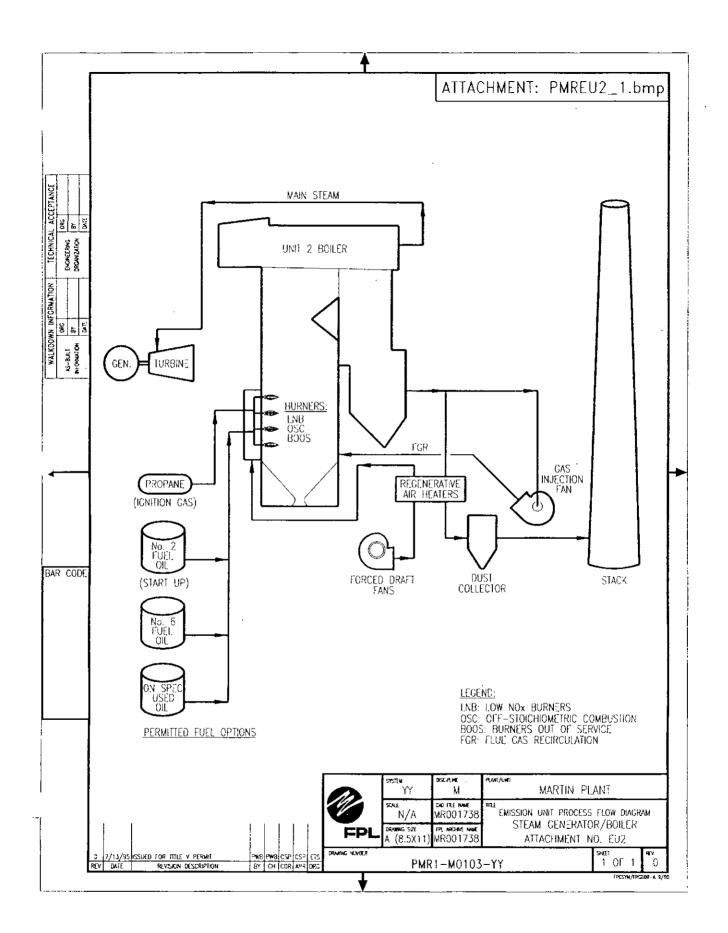
Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 shall be construed as.

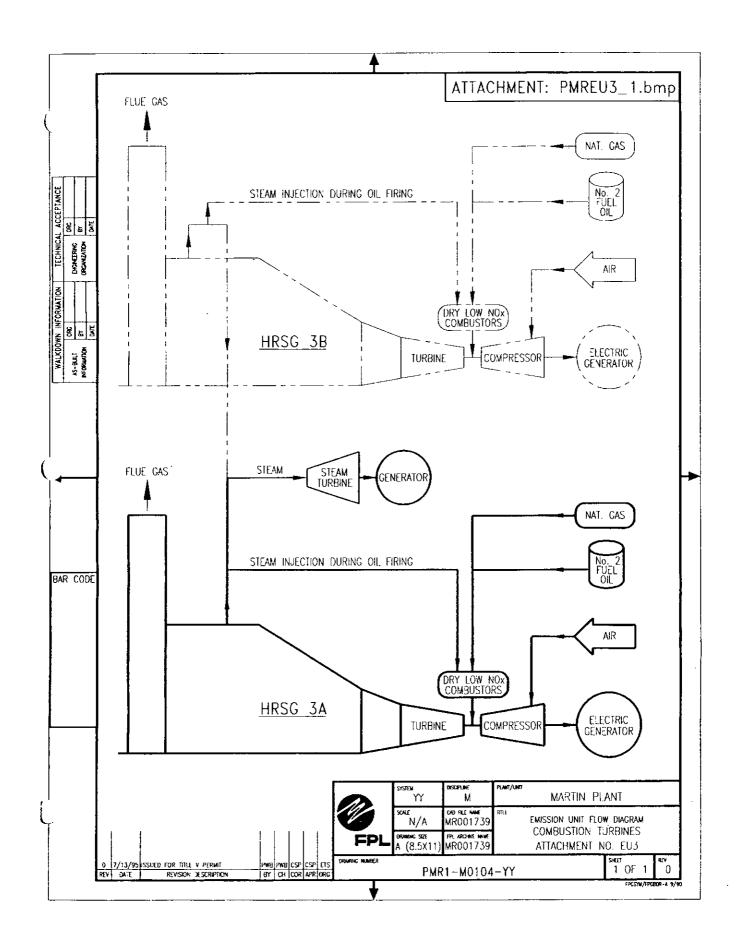
- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of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

#### Certification

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

Name: Nan	acy Kierspe	
Signature	Mancy Kressee	Date 4-1-03





#### STACKS PECIFICATIONS

TANNUPO DIANETET 14 m
TANNUPO ATRA TATA ()
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Po DENTETT (, f domaio
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# FLORIDA POWER & LIGHT CC. STACK SAMPLING FACILITIES MARTIN SITE

Gas & Distribute Oil Fired Combined Cycle.
Units 3 & 4

# PARTICULATE SAMPLING rad---18" ---|Bay PROBE HAGE AM Sampling Ports 3U 18 1-3 and Rahom 10.14 Access tadder 1171 Z131 . ( )4 13.14 12.34 HRSG 63 23.14 :4 10

Probe support above each port is provided by a 15° charrel ironbeam with a limit roley system. Lighting and 15 amp. 118 Vistandard plugs are provided on the platform. Additional power is less assistable at the base of the stack.

FRESHATTAV CHANGE

## **Attachment PMRU3-6.txt**

## Procedures for Startup / Shutdown

Startup for the combustion turbines begins with "lighting off" of the machines on either natural gas or light distillate oil. A period of from two to several hours is required to allow metal temperatures in the heat recovery steam generator (HRSG) and in the steam turbine to equilibrate without undue metal stress, before putting the unit "on the line" and sending electrical power to the grid.

The combustion turbines (CTs) utilize dry-low-NOx combustors for NOx control. Emissions are continuously monitored by Continuous Emission Monitors (CEMs) for O₂ and NOx. Best Operating Practices are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

[This emission unit is allowed up to four hours of excess emissions in a 24-hour period if it is the first combustion turbine (of the two in a unit) to start up when the steam turbine is cold. Otherwise, it is allowed up to 2 hours of excess emissions in 24 hours, pursuant to 62-210.700(1).]

Shutdown is performed by reducing the unit load (electrical production) to a minimum level, opening the breaker (which disconnects the unit from the system electrical grid), shutting off the fuel and coasting down to stop. The CT is then put "on turning gear" to prevent possible disfiguration of the turbine components.

## Attachment PMRU3 11.txt

## Alternative Methods of Operation - Combustion turbines

This combustion turbine (CT) emission unit will operate primarily on natural gas fuel, with light distillate oil as a backup fuel. Each CT will be operated independently of each other, and can operate from 0 to 1966 MMBtu/hour on gas fuel, from 0 to 1846 MMBtu/hour on distillate oil, and from 1 to 2100 mmBtu/hour on coal gas fuel.

Emissions from the combustion turbines are affected by ambient temperature, type of fuel, and megawatt load on the unit. Ambient temperature is a factor because at cooler ambient temperatures the air is more dense; therefore more air can be forced through the unit, with a correspondingly higher fuel useage (and therefore higher emissions) than at higher ambient temperatures. Higher megawatt production is also possible at lower ambient temperatures.

The type of fuel combusted affects emissions due to the variability of contaminants contained in the fuel and differences in the combustion process for different fuels. Please refer to Emission Unit Supplemental Information Question #3 for fuel analytical information.

Megawatt load on the unit affects emissions primarily due to differences in combustion efficiency. With some parameters, megawatt load and emission rate are directly related; with others, an inverse relationship exists.

The combustion turbine may also be operated in "power augmentation" mode, which involves the introduction of steam into the combustion chamber, along with slightly higher fuel and air injection rates. Please note that the original PSD permitting and Site Certification permitting was undertaken in consideration of power augmentation; current permit limits are reflective of the power augmentation method of operation.

Following is a list of current emissions limitations which the combustion turbine must meet during operation:

Pollutant	Fuel	Basis U1	s <u>Limitations^d</u> nits 3&4 /hr/CT	ТРҮ	Units 5&6 lb/hr/CT	<u>TPY</u> ^a
NOx	Gas Oil	25 ppmvd @ 15% O ₂ 65 ppmvd @ 15% O ₂	177 comb. 461 tot.	3,108	177 comb.	3,108 461 tot.
	CG	42 ppmvd @ 15% O ₂	392	6,868	392	6,868
VOC ^b	Gas Oil	1.6 ppmvd 6 ppmvd	3 comb	57	3 comb.	57 11 * tot.
	CG	9 ppmvd	21.4	375	21.4	375
СО	Gas Oil	30 ppmvd 33 ppmvd	94.3 comb.	871 105.8 tot.	94.3 comb.	871 105.8 tot.
	CG	33 ppmvd	134	2,311	134	2,311

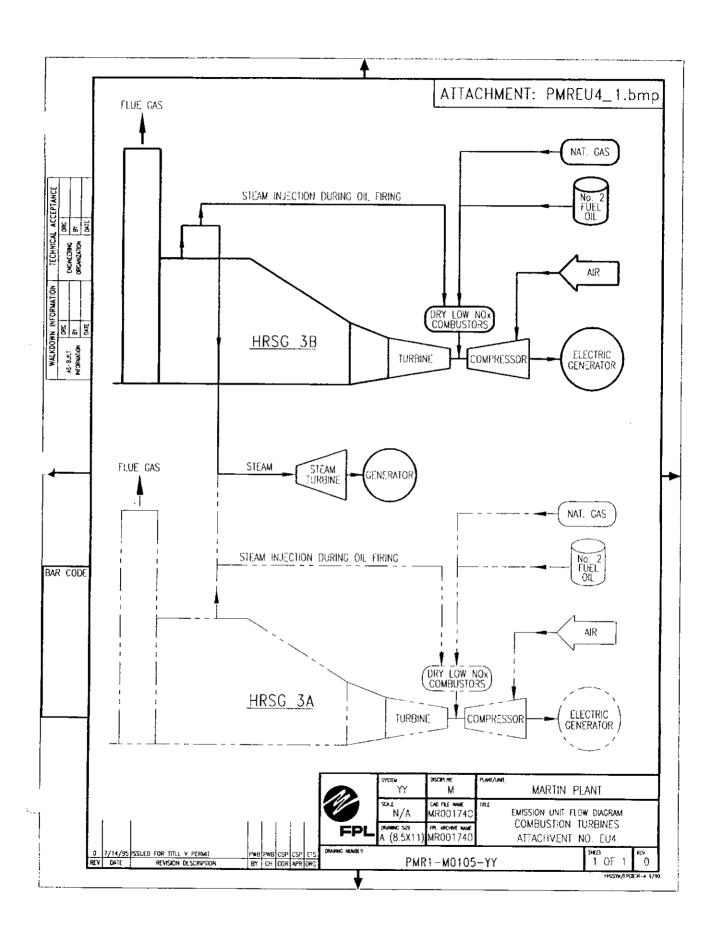
## **Attachment PMRU3-11.txt**

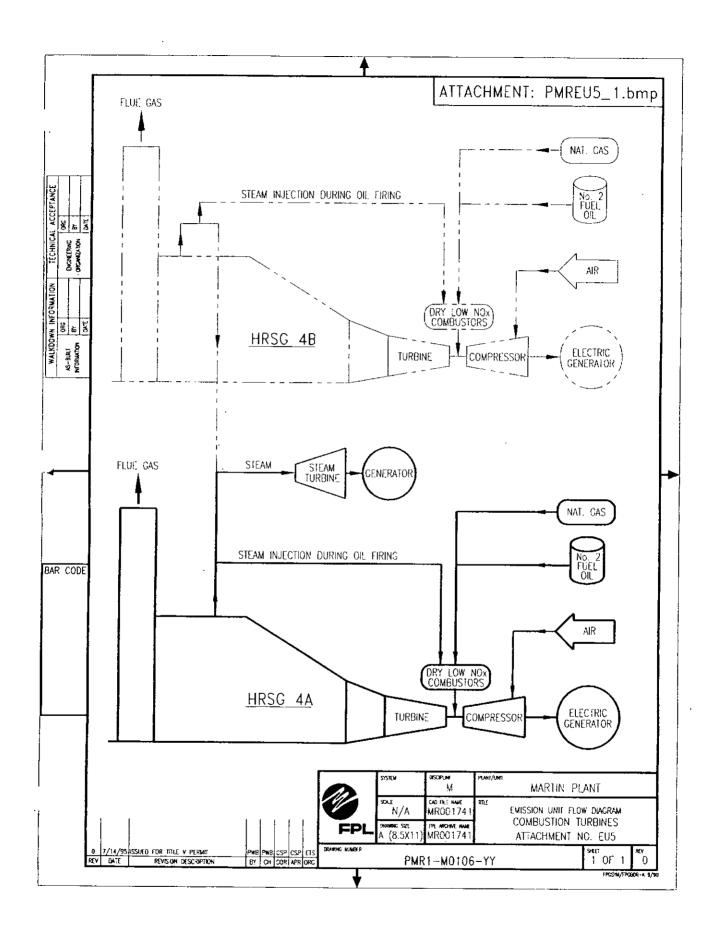
## **Alternative Methods of Operation - Combustion turbines**

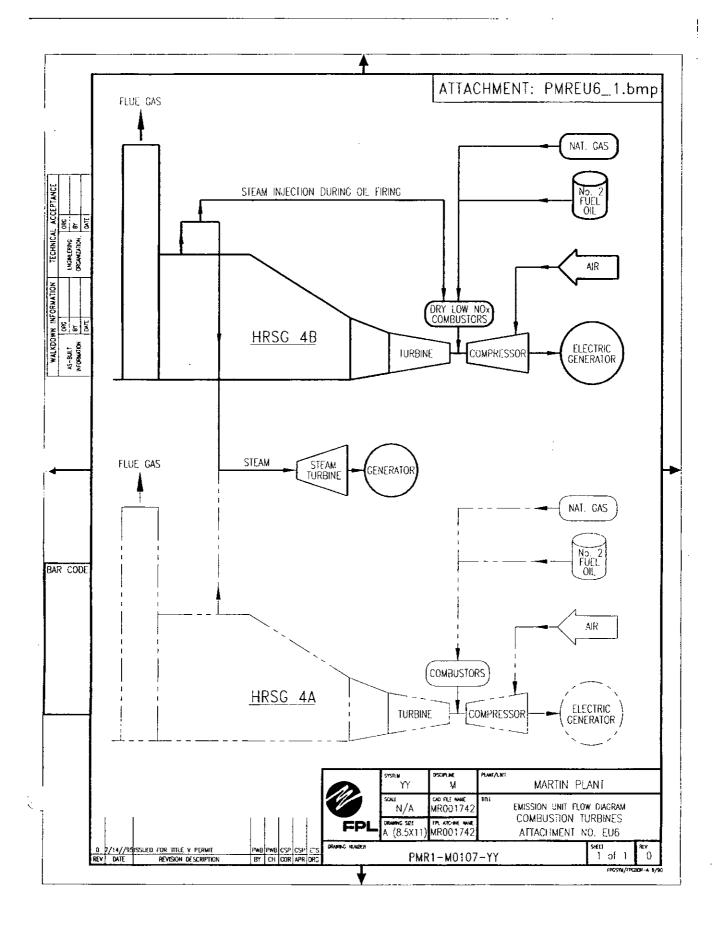
			Emissions Limita	tions ^d			
Pollutant	Fuel	Basis	Units 3&4			Units 5&6	
			lb/hr/CT		TPY	lb/hr/CT	TPY
PM/PM ₁₀	Gas		18	comb.	100	18 comb.	100
	Oil		60.6	tot.	100	ro comb.	60.6 tot.
	CG		19		333	19	333
Pb	Gas		neg.	comb.	0.015	neg. comb.	0.015
	Oil		Ü		0.015 tot.	J	0.015 tot.
	CG		0.3		5.3	0.3	5.3
$SO_2$	Gas		91.5	comb.	568	91.5 comb.	568
	$\mathrm{Oil}^{\mathrm{c}}$				920 t ot.		920 tot.
	CG		834		14612	834	14612 -

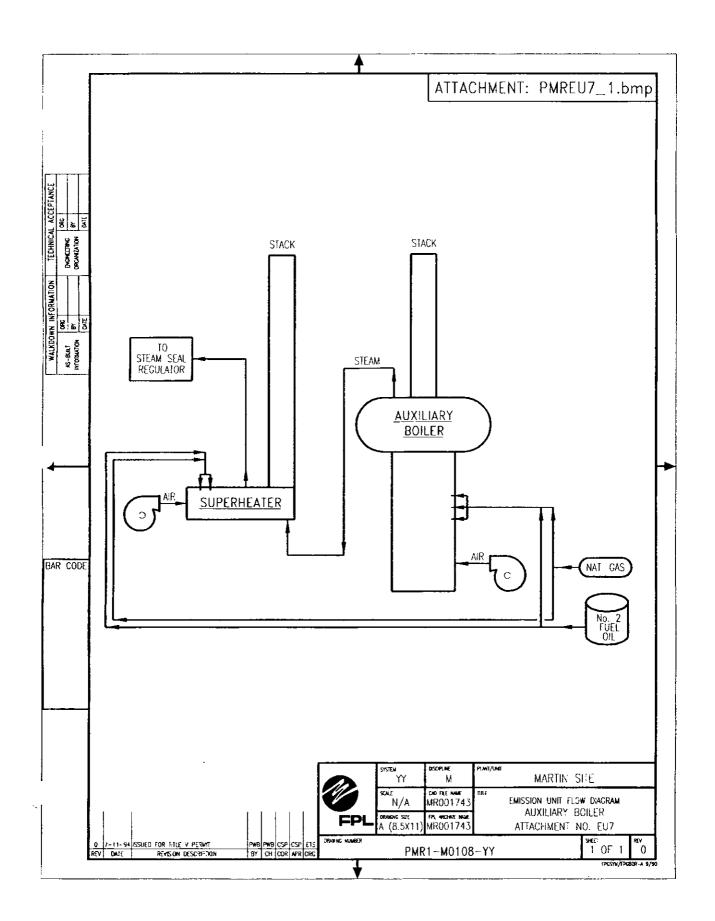
- a Tons per year (TPY) emission limits listed for natural gas and oil combined apply as an emission cap based on limiting oil firing to an annual aggregate of 2,000 hours for the 4 CTs, with compliance to be demonstrated in annual operation reports.
- b Exclusive of background concentrations
- c Sulfur dioxide emissions based on a maximum of 0.5 percent sulfur in oil for hourly emissions and an average sulfur content of 0.3 percent for annual emissions.
- d These limitations for Units 5 and 6 and coal gasification shall not be binding for subsequent BACT determinations.

Note that in several cases, the annual emission limits are given in terms of a combined limit for 4 CT's. This allows FPL the flexibility to operate any of the combustion turbines on an as-needed basis, so long as both the hourly and annual emission limitations are complied with.









## Attachment PMRU7 2.txt

# Fuel Analysis <u>Natural Gas Analysis (typical)</u>³

Parameter	Typical value	Max value	
Specific gravity(@ 60° F)	0.887	none	
Heat content (Btu/cu ft)	950 - 1124 ²	none	
% sulfur (grains/CCF)	0.431	1.00	
% nitrogen (by volume)	0.8	none	
% ash	negligible	none	

^{*}Note: The values listed are "typical" values based upon information supplied to FPL by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

- (1) Data from laboratory analysis
- (2) Data from FPL fuel purchasing specifications
- (3) The values are "typical" based upon the following:
  - · Information gathered by FPL through laboratory analysis, and
  - FPL's fuel purchasing specifications. It should be noted that the analytical results brained from grab samples taken at any given time may vary from those listed.

## No. 2 Distillate oil (typical)⁵

Parameter	Typical value	Specifications
API gravity (@ 60 F)	$35.0^{2}$	$30 - 40^{1}$
Heat content (MBtu/bbl)	$5,700 - 5,800^2$	none
% sulfur	$0.2^{3}$	0.3 maximum ⁴
% nitrogen	no specification	none
% ash	$<0.01^{2}$	$0.01^{1}$

#### Footnotes:

- (1) Data taken from FPL fuel specifications.
- (2) Data taken from laboratory analysis.
- (3) Data from current air permit max hourly concentration.
- (4) Data from current air permit max annual concentration.
- (5) The values are "typical" based upon the following:
  - · Information gathered by FPL through laboratory analysis, and
  - FPL's fuel purchasing specifications. It should be noted that the analytical results obtained from grab samples taken at any given time may vary from those listed.

## **Attachment PMRU7 6.txt**

## **Procedures for Startup / Shutdown**

The auxiliary boiler is a primary component of the auxiliary steam system at the combined-cycle units. The function of the auxiliary steam system is to produce and convey steam to both steam turbine steam seal systems during startup and emergency situations.

Startup for the auxiliary boiler begins with "lighting off" of the machine on natural gas fuel. As the water heats up in the boiler tubes it will start to steam. After a time, the superheater is started, which adds additional heat to the steam being produced by the auxiliary boiler. When the steam pressure and temperature reach acceptable conditions, the steam is conveyed to the steam seal regulator of the steam turbine.

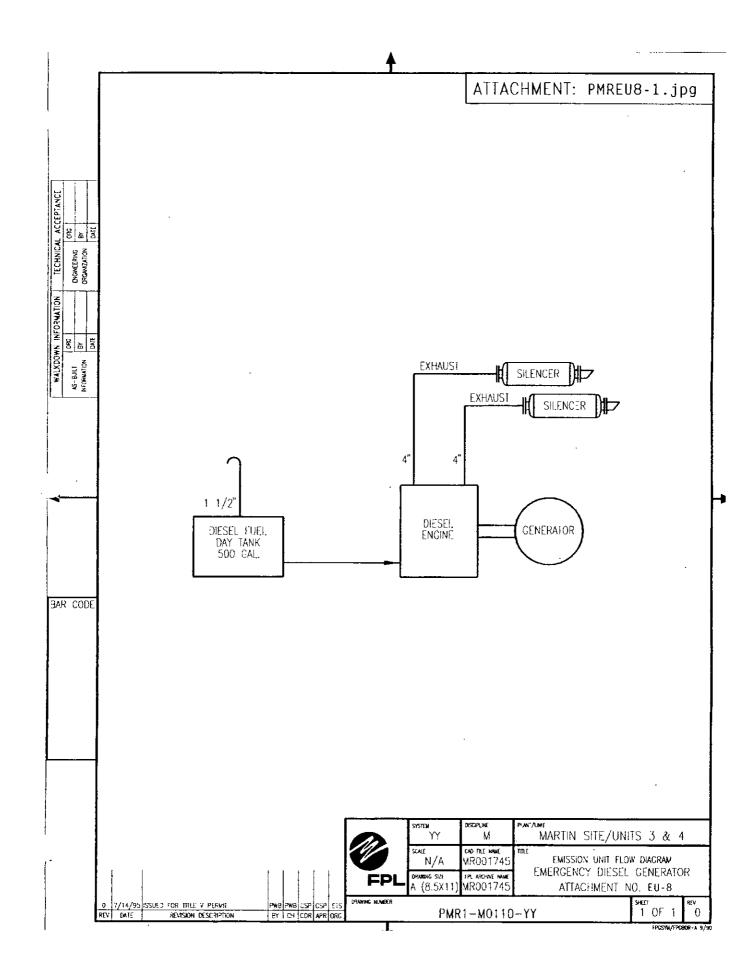
Shutdown is performed when the steam seals on the steam turbine become self-sealing. Shutdown is performed by shutting off the natural gas fuel supply to the auxiliary boiler.

Best Operating Practices include monitoring the visible emissions from the auxiliary boiler to ensure that the 10% opacity limitation is not exceeded. Built-in safeguards monitor the main flame and initiate shutdown in the event of loss of flame. All efforts to minimize both the level and duration of excess emissions are undertaken.

## **Attachment PMRU7 11.TXT**

## **Alternative Methods of Operation**

The auxiliary boiler superheater is only operated in conjunction with the auxiliary boiler. The auxiliary boiler superheater may be fired with either natural gas fuel or with light distillate oil fuel. Operating hours on the auxiliary boiler (and therefore by extension the aux. boiler superheater) are limited to during cold startups or whenever steam is otherwise unavailable for the steam seals on the steam turbine. The heat input rate on the auxiliary boiler superheater may range from 0 to 1.5 mmBtu/hour.



## **Attachment PMRU8-2.txt**

## **Fuel Analysis**

## No. 2 Distillate oil (typical)⁵

Parameter	Typical value	Specifications
API gravity (@ 60 F)	35.0 ²	30 - 401
Heat content (MBtu/bbl)	$5,700 - 5,800^2$	none
% sulfur	$0.2^{3}$	0.3 maximum ⁴
% nitrogen	no specification	none
% ash	<0.01 ²	$0.01^{1}$

#### Footnotes:

- (1) Data taken from FPL fuel specifications.
- (2) Data taken from laboratory analysis.
- (3) Data from current air permit max hourly concentration.
- (4) Data from current air permit max annual concentration.
- (5) The values are "typical" based upon the following:
  - · Information gathered by FPL through laboratory analysis, and
  - FPL's fuel purchasing specifications. It should be noted that the analytical results obtained from grab samples taken at any given time may vary from those listed.

## **Attachment PMRU8-6.txt**

## Procedures for Startup / Shutdown

The emergency diesel generator is the main backup power supply component for the fossil steam boiler generating units. The function of the emergency diesel generator is to supply electric power to key power plant equipment during emergency loss-of-power situations. This equipment is typically test-run on a monthly basis to ensure that it will function properly when needed in an emergency.

Startup for the emergency diesel generator begins with actuating a switch which sends an electric signal to a starter motor on the diesel engine which "turns over" the diesel engine until ignition of the diesel fuel commences.

Shutdown is performed when the normal electric power supply to plant equipment is restored. Shutdown is performed by shutting off the diesel fuel supply to the emergency diesel generator.

Best Operating Practices include proper maintenance of the diesel engine on the generating unit, and monitoring the visible emissions from the emergency diesel generator to ensure that the opacity limitation is not exceeded. All efforts to minimize both the level and duration of excess emissions are undertaken.

## **Attachment PMRU8-11.txt**

## **Alternative Methods of Operation**

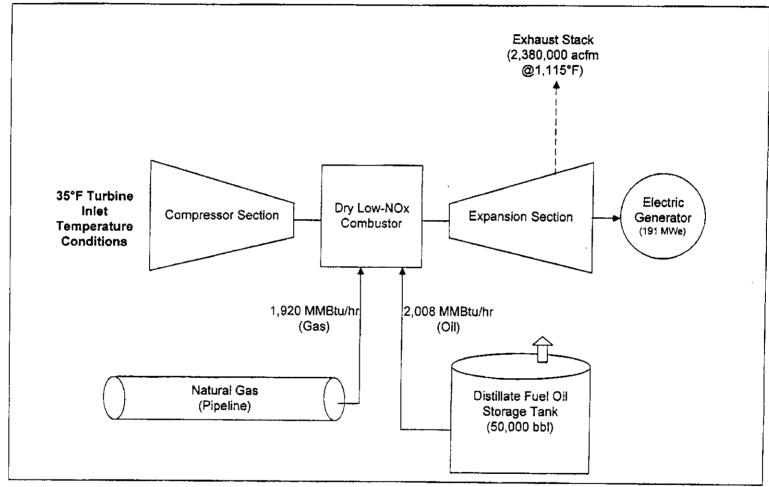
The emergency diesel generator will be fired with light distillate oil fuel. Operating hours on the diesel generator are unlimited; the generator may be operated up to 8760 hours per year. However, as a practical matter, the generator typically does not operate nearly that often; historically the emission unit has operated less than 400 hours per year.

The emergency diesel generator is typically started up at least once per month and run for about an hour to ensure operability if & when needed to provide startup power to large plant operating equipment.

## **Attachment PMRU8-13.txt**

## **Identification of Additional Applicable Requirements**

Additional applicable requirements may be found in the facility's current PSD permit (PSD-FL-146) and Site Certification (PA - 89 - 27). Both of these documents may be found at the end of this Title V application, as attachments. The primary requirements for this emission unit are the limitations on NOx and SO2 of 15 gm/hp-hr and 0.3% sulfur fuel as an annual limit.



Martin Peaking Units Figure 2-1
Simplified Flow Diagram of GE Frame 7FA
Martin Peaking Units Project



### **Attachment PMRU9-2.txt**

### **Fuel Analysis**

## Natural Gas Analysis (typical)³

Parameter	Typical value	Max value
Specific gravity(@ 60° F)	0.887	none
Heat content (Btu/cu ft)	950 - 1124 ²	none
% sulfur (grains/CCF)	$0.43^{1}$	1.00
% nitrogen (by volume)	0.8	none
% ash	negligible	none

^{*}Note: The values listed are "typical" values based upon information supplied to FPL by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

- (1) Data from laboratory analysis
- (2) Data from FPL fuel purchasing specifications
- (3) The values are "typical" based upon the following:
  - · Information gathered by FPL through laboratory analysis, and
  - FPL's fuel purchasing specifications. It should be noted that the analytical results brained from grab samples taken at any given time may vary from those listed.

## Fuel Analysis No. 2 Distillate oil (typical)⁵

Parameter	Typical value	Specifications	
API gravity (@ 60 F)	$35.0^{2}$	30 - 40 ¹	
Heat content (MBtu/bbl)	$5,700 - 5,800^2$	none	
% sulfur	$0.2^{3}$	0.3 maximum ⁴	
% nitrogen	no specification	none	
% ash	<0.01 ²	$0.01^{1}$	

#### Footnotes:

- (1) Data taken from FPL fuel specifications.
- (2) Data taken from laboratory analysis.
- (3) Data from current air permit max hourly concentration.
- (4) Data from current air permit max annual concentration.
- (5) The values are "typical" based upon the following:
  - · Information gathered by FPL through laboratory analysis, and
  - FPL's fuel purchasing specifications. It should be noted that the analytical results obtained from grab samples taken at any given time may vary from those listed.

GER-3568F

# DRY LOW NO_x COMBUSTION SYSTEMS FOR GE HEAVY-DUTY GAS TURBINES

L.B. Davis GE Power Systems Schenectady, NY

#### ABSTRACT

State-of-the-art emissions control technology for heavy-duty gas turbines is reviewed with emphasis on the operating characteristics and field experience of Dry Low NO_X (DLN) combustors for E- and F- technology machines. The lean premixed DLN systems for gas fuel have demonstrated their ability to meet the ever-lower emission levels required today. Lean premixed technology has also been demonstrated on oil fuel and is also discussed.

## INTRODUCTION

The regulatory requirements for low emissions from gas turbine power plants have increased during the past 10 years. Environmental agencies throughout the world are now requiring even lower rates of emissions "NO_x and other pullutants from both new and sting gas turbines. Traditional methods of reducing NO_x emissions from combustion turbines (water and steam injection) are limited in their ability to reach the extremely low levels required in many localities. GE's involvement in the development of both the traditional methods (References 1 through6) and the newer Dry Low NO_x (DLN) technology (References 7 and 8) has been well-documented. This paper focuses on DLN.

Since the commercial introduction of GE's DLN combustion systems for natural-gas-fired heavy-duty gas turbines in 1991, systems have been installed in more than 145 machines, from the most modern F technology (firing temperature class of 2400 F/1316 C) to field retrofits of older machines. As of August 1996, these machines have operated more than one million hours with DLN; more than 290,000 hours have been in the F technology. To meet marketplace demands, GE has developed DLN products broadly classified as either DLN-1, which was developed for E-technology (2000 F/1093 C firing temperature class) machines, or DLN-2, which was developed specifically for the F techa gy machines and is also being applied to the EC, G and H machines. Development of these products has required an intensive engineering effort involving both GE Power Systems and GE Corporate Research and Development. This collaboration will continue as DLN is applied to the G and H machines and combustor development for Dry Low NO_x on oil ("dry oil") continues.

This paper presents the current status of DLN-1 technology and experience, including dry oil, and of DLN-2 technology and experience. Background information about gas turbine emissions and emissions control is contained in the Appendix.

## DRY LOW NO_X SYSTEMS

## Dry Low NOx Product Plan

Figure 1 shows GE's Dry Low NO_X product offerings for its new and existing machines in three major groupings. The first group includes the MS3000, MS5000 and MS6001B products. The 6B DLN-1 is the technology flagship product for this group and, as can be noted, is available to meet 9 ppm NO_X requirements. Such low NO_X emissions are generally not attainable on lower firing temperature machines such as the MS3000s and MS5000s because carbon monoxide (CO) would be excessive.

The second major group includes the MS7000B/E, MS7001EA and MS9001E machines with the 9 ppm 7EA DLN-1 as the flagship product. The dry oil program focuses initially on this group.

The third group combines all of the DLN-2 products and includes the FA, EC, G and H machines, with the 7FA product as the flagship.

As shown in Figures 2 and 3, most of these products are capable of power augmentation and of peak firing with increased NO_X emissions. With gas fuel, power augmentation with steam is in the premixed mode for both DLN-1 and DLN-2 systems. Power augmentation with water is in the lean-lean mode for DLN-1 and in the premixed mode for DLN-2.

The GE DLN systems integrate a staged pre-

## Attachment PMRU9-3.txt

3ER-3568F

	I	Gat			Diction	
. Turbina Model	(ppmvd)	(ppmvd)	Dilivent	HO _x (ppnevd)	(ppmvd)	Diluent
MS3002 (J) - RC	\$3	25	Dry		Not Available	
M\$3002 (J) - SC	42	<b>50</b>	Dry		***************************************	
MSS001P	42	60	Dry	65	20	Water
MS5001Fl	42	50	Dry	<b>6</b> 5	20	Water
MS5002C	42	60	Dry	65	20	Weter
MS6001 B	42 25	15	Dry	42	) 20	Water
1		25	Dry	42	30	Water/Steam
MS6001 FA	25	16	Dry	42/65	20	Water/Steam
MS7001 B/E Conv	25	25	Dry	42	30	Water
MS7001 EA	25	16	Dry	42	20	Water
1	15	25	Dry	42	30	Water/Steam
	•	25	Dry	42	30	Weter/Steam
MS7001 EC	25	15	Dry	42/65	20	Water/Steam
MS7001 FA	25	15	Dry	42/65	20	WatedSteam
	1 0		Dry	42/65	30	Water/Steam
MS9001 E		15	Dry	42	20	Water
	35 25	25	Day	42	20	Water
· ·	1 %	25	Dry	90	20	Dry
MS7001 H	ස ස	15	Dry	42/65	20	Water/Steam
morevi n	1 7	1 7	Dry	42/65	30	WaterSteam
MS9001 EC	25	15	Dry	42/65	20	Weter/Glean
MS9001 FA	25	15	Dry	42/65	20	Weter/Steam
MS9001 H	25	16	Dry	42/65	20	Water/Steen
1. NO, levels are at 16%		1	<u> </u>			

Figure 1. Dry Low NO_x product plan

GT247170

mixed combustor, the gas turbine's SPEEDTRONIC™ controls and the fuel and associated systems. There are two principal measures of performance. The first is meeting the emission levels required at base load on both gas and oil fuel and controlling the variation of these levels across the load range of the gas turbinc.

The second measure is system operability, with emphasis placed on the smoothness and reliability of combustor mode changes, ability to load and unload the machine without restriction, capability to switch from one fuel to another and back again, and system response to rapid transients (e.g., generator breaker open events or rapid swings in load). GE's design goal is to make the DLN system operate so the gas turbine operator does not know whether a DLN or conventional combustion system is installed (i.e., is operation is "transparent to the user"). At August 1996, a significant portion of the DLN design and development effort has focused on system operability.

Design of a successful DLN combustor for a heavy-duty gas turbine also requires the designer to develop hardware features and operational

Turbine Model	NOx @15% Oz (ppmvd)	Operating Mode	Diluent	Maximum Diluent/Fuel	NO _x et Max D/F (ppmvd)	CO Max D/F (ppmvd)
MS6001(B)	9	Premix Lean-Lean	Steam Steam	2.5/1 2.5/1	9 25	25 15
	25	Premix Lean-Lean Lean-Lean	Steam Water Steam	2.5/1 1.5/1 2.5/1	25 25 25	15 15 15
MS7001(EA)	9	Premix Lean-Lean Lean-Lean	Steam Water Steam	2.5/1 1.5/1 2.5/1	9 25 25	25 15 15
•	25	Premix Lean-Lean Lean-Lean	_	2.5/1 1.5/1 2.5/1	25 25 25	15 15 15
MS7001(FA)	25	Premix	Steam	2.1/1	25	15

Figure 2. DLN power augmentation summary --- gas fuel

GER-3568F

	NO ₂ -Base (ppmvd)	NO _x -Peak (ppmvd)	CO-Base (ppmvd)	CO-Peak (ppmvd)
MS6001(B)	. 9	. 18	25	6
	25	50	15	4
MS7001(EA)	9	18	25	6
	25	50	15	¹ 4
MS7001(FA)	25	35	15	6
MS9001(E)	25	40	15	6

Figure 3. DLN peak firing summary — gas fuel

**GT2455** 

methods that simultaneously allow the equivalence ratio and residence time in the flame zone to be low enough to achieve low NO_X, but with acceptable levels of combustion noise (dynamics), stability at part load operation and sufficient residence time for CO burn-out, hence the designation of DLN combustion design as "foursided box" (Figure 4).

A scientific and engineering development pram by GE's Corporate Research and Development Center, Power Systems business and Aircraft Engine business has focused on understanding and controlling dynamics in lean premixed flows. The objectives have been to:

- Gather and analyze machine and laboratory data to create a comprehensive dynamics data base
- Create analytical models of gas turbine combustion systems that can be used to understand dynamics behavior

 Use the analytical models and experimental methods to develop methods to control dynamics

As of August 1996, these efforts have resulted in a large number of hardware and control features that limit dynamics, plus analytical tools that are used to predict system behavior. The latter are particularly useful in correlating laboratory test data from full scale combustors with actual gas turbine data.

#### **DLN-1 System**

DLN-1 development began in the 1970s with the goal of producing a dry oil system to meet the United States Environmental Protection Agency's New Source Performance Standards of 75 ppmvd NO_x at 15% O₂. As noted in Reference 7, this system was tested on both oil and gas fuel at Houston Lighting & Power in

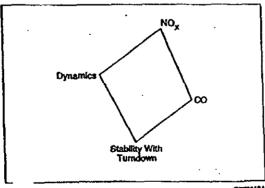


Figure 4. DLN technology — a four-sided box

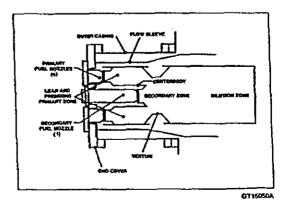


Figure 5. DLN-I combustor schematic

**GER-3568F** 

1980 and met its emission goals. Subsequent to this, DLN program goals changed in response to stricter environmental regulations and the pace of the program accelerated in the late 1980s.

#### **DLN-1 Combustor**

The GE DLN-1 combustor (shown in cross section in Figure 5 and described in Reference 8) is a two-stage premixed combustor designed for use with natural gas fuel and capable of operation on liquid fuel. As shown, the combustion system includes four major components: fuel injection system, liner, venturi and cap/centerbody assembly.

These components form two stages in the combustor. In the premixed mode, the first stage thoroughly mixes the fuel and air and delivers a uniform, lean, unburned fuel-air mixture to the second stage.

The GE DLN-1 combustion system operates in four distinct modes, illustrated in Figure 6, during pre-mixed natural gas or oil fuel operation:

Mode Operating Range

ture.

Fuel only to the primary nozzles. Flame is in the primary stage only. This mode of operation is used to ignite, accelerate and operate the machine over low-to mid-loads, up to a preselected combustion reference tempera-

Lean-Lean

**Primary** 

Fuel to both the primary and secondary nozzles. Flame is in both the primary and secondary stages. This mode of operation is used for intermediate loads between two pre-selected combustion reference temperatures.

Secondary

Fuel to the secondary nozonly. Flame is in the secondary zone only. This mode is a transition state between lean-lean and premix modes. This mode is necessary to extinguish the flame in the primary zone, before fuel is reintroduced into what becomes the primary premixing zone.

Premix

Fuel to both primary and secondary nozzles. Flame is in the secondary stage only. This mode of operation is achieved at and near the combustion reference temperature design point. Optimum emissions are generated in premix mode.

The load range associated with these modes varies with the degree of inlet guide vane modulation and, to a smaller extent, with the ambient temperature. At ISO ambient, the premix operating range is 50% to 100% load with IGV modulation down to 42°, and 75% to 100% load with IGV modulation down to 57°. The 42° IGV minimum requires an inlet bleed heat system.

If required, both the primary and second—y fuel nozzles can be dual-fuel nozzles, thus a ing automatic transfer from gas to oil throughout the load range. When burning either natural gas or distillate oil, the system can operate to full load in the lean-lean mode (Figure 6) and in the pre-mixed. Power augmentation with water is the most common reason.

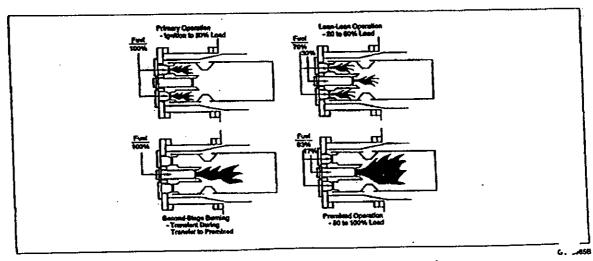
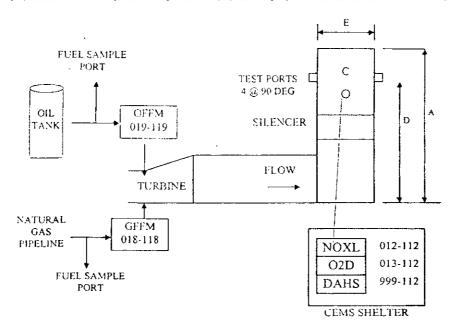


Figure 6. Fuel-staged Dry Low NOx operating modes

#### Attachment PMREU9-4

## MARTIN PLANT UNIT PMR8A & 8B ORIS CODE: 6043 SCHEMATIC DIAGRAM/CEMS SAMPLE LOCATION



#### MONITOR LOCATION INFORMATION

A -STACK HEIGHT ABOVE GRADE -81 FEET

- B -STACK INSIDE DIAMETER AT TEST PORT -20 FEET, 6 INCHES
- C -INSIDE CROSS-SECTIONAL AREA AT TEST PORT -330 SQ. FT.
- D -CEMS SAMPLE PROBE
  - 1. ABOVE GRADE -69.9 FEET
  - 2. ABOVE LAST DISTURBANCE (SILENCER)
    - A. FEET -18 FEET, 9 INCHES
    - B. STACK DIAMETERS -0.91
  - 3. PRIOR TO STACK EXIT
    - A. FEET -11 FEET, 3 INCHES
    - B. STACK DIAMETERS -0.55 EPA TEST PORT
      - 1. ABOVE GRADE -70.9 FEET
      - 2. ABOVE LAST DISTURBANCE (SILENCER)
        - A. FEET -19 FEET, 9 INCHES
        - B. STACK DIAMETERS -0.96
      - 3. PRIOR TO STACK EXIT
        - A. FEET -10 FEET, 3 INCHES
        - **B. STACK DIAMETERS -0.5**
- E -INSIDE CROSS-SECTIONAL AREA AT FLUE EXIT -330 SQ. FT.
  - F -STACK BASE ELEVATION -31.5 FEET ABOVE MEAN SEA LEVEL

### **Attachment PMREU9-6a**



1
06/05/01
Page 2 of 14

### **OBJECTIVE**

Perform normal start-up of Combustion Turbine for Simple Cycle operation. This procedure contains the following:

Startup

How to go on & off load control

Shutdown

Start check definitions

How to soft boot screen should it freeze up

## SAFETY AND ENVIRONMENTAL

ALL safety rules should be followed when starting the unit.

#### **PREREQUISITES**

The Combustion Turbine is on Turning Gear. (2100)

The Closed Cooling Water System is in service with fans running. (2105)

The Compressed Air system is in service. (2007)

NOTE: Time needed to start the unit with pre-arranged notification places having the Inside Operator "PUSH" the "START" button 1 hour before RFC time. The operator must prepare the unit to have it "Ready to Start" within that timeline.

If the Dispatcher calls for the Unit WITHOUT proper notification, the operator must be able to RFC the unit with 85 minutes of time notified that unit is needed.

The unit is considered Ready for Control when the Combustion Turbine has reached firing mode 6Q, NOx is below limits, and unit is stable.

mode od, NOX is below limits, and unit is stable.	<del></del>
Perform shift tailboard to review the activities of start up.	
Review clearance book to verify that nothing has been taken out of service that will prevent the starting of the unit.	
Review Mark VI points that are FORCED. To scan for forced points go to Programs\Ovation NT\Ovation Applications\Review. At this point go to Review	



LOCATION Martin Unit 8	PROCEDURE NUMBER	
Combustion Turbine	REV 1	
Inside Operator	DATE 06/05/01	
Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Fuel Oil	Page 3 of 14	

on the top menu & hit "Set Review Filters." On the bottom menu hit "clear ail". On Drops & Record Types hit "set all." Now check "Alarm check removed" & "Limit check removed" under Checking/Cutout Items. Under Other Reasons hit "Scan removed." After hitting OK then hit Go to review list. Check Drop Status to be normal Select Mode Select box, then select AUTO on Startup Screen (2100) Verify **Generator Mode** box, to be indicating **OFF** Select Master Reset from the Ovation screen & a Diagnostic Reset from the Mark VI. Check Status Box for a Ready to Start If you do not get a "Ready to Start" Check the START CHECKS graphic. (2113) (2113)Select (START CHECKS), graphic from the DCS & investigate any checks still in red. (Go to end of this procedure to review Problem areas) (2105)Select (PUMP/FAN/MOTOR CTRL), graphic from the DCS.

## START UP THE COMBUSTION TURBINE

Start a fuel oil forwarding pump. Start a second pump if both units will be operated on oil. Start a demin. forwarding pump. Again, start a second pump if both units will be operated on oil.

Verify with the Outside Operator that the Combustion Turbine has been walked down and is ready to be started.

located on PGBU DOC SERVER //jbxsw65/pgen/pmr/pmr eakers/procedures/draft

Assure that the lead motor is actually running.



LOCATION Martin Unit 8	PROCEDURE NUMBER	
Combustion Turbine	REV 1	
Inside Operator	DATE 06/05/01	
Normal Start-Up of Combustion Furbine to Simple Cycle Operation on Fuel Oil	Page 4 of 14	

Verify with the Outside Operator that the Generator Disconnects are closed and reported to the Dispatcher.

When you are ready to start the CT make an announcement that you are going to start the CT.

(2100) From the (STARTUP), graphic on the DCS.		
Select FUEL Fuel oil for the purpose of this procedure		•
Select MASTER CONTROL		
From sub window Select START		
Write down time the CT Starts.  Verify that the Status box indicates [CRANKING]	_ AM PN	Λ
(2114) Select (STATIC START), graphic from the DCS.		
Check that 89ND is indicating OPEN Check that 89SS is indicating CLOSED Check Static Start reference out to be indicating 14.5 %		
Turbine Speed should be increasing.		
Check LCI Ref to be indicating 14.5% Check TNH to be increasing		•

The CT will accelerate to 14.5% speed approx. 525 RPM.
When speed is reached the CT will hold at 525 RPM for 5 Minutes
This is to allow for a purge of the CT.
After 5 minute purge the LCI will lower the speed of the CT.



Combustion Turbine	REV 1		
Some ston fulbills			
Inside Operator	DATE	06/05/01	
Normal Start-Up of Combustion rbine to Simple Cycle Operation on Fuel Oil	Pag	Page 5 of 14	

The CT will coast down in speed to below 14.5% approx. 478 RPM. The LCI will then bring the speed back up to firing speed 504 RPMs.

CT Status will indicate [FIRING] on start up graphic	
Write down the time that FIRES were established in the CT: AM	PM
Select (STARTUP), graphic from the DCS.	
Check that the FSR is set at 14 The CT Status Box will indicate [WARMING UP]	
The CT will set at 14.5% speed (525) for 1 Minute to allow for warm u	р.
(2114) Select (STATIC START), graphic from the DCS. Check that the LCI reference goes to 100%  Select (STARTUP), graphic from the DCS. Check that the FSR is increasing	
Check that CT speed is increasing CT Status will indicate [ACCELLERATING] The IGV's will begin to move from 34% to 57% degrees	
Select (STATIC START), graphic from the DCS. At 91% speed (3276 RPM) the LCI will de-energize. Check that 89SS has OPENED Check 89ND has CLOSED	

The CT will continue to increase in speed. Due to increased fuel flow. When the CT reaches 95% speed (3420 RPM) the EX2000 flashes the field.

#### (2103)

Select (GEN/EXCITER), graphic from the DCS.



Martin Unit 8	PROCEDURE NUMBER	
Combustion Turbine	REV 1	
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Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Fuel Oil	Page 6 of 14	

Check Gen. Voltages & exciter volts and amps

(2005)

Select (Main Fuel System), graphic from the DCS.

Check that the fuel oil supply pressure is steady

When you are ready to place the unit on line after achieving FSNL.

(2118)

Select (SYCHRONIZING), graphic from the DCS.

Select (Speed/Load Control) to adjust speed to 3606 RPM's

Select (KV/KVAR Control) to adjust voltage to 1 KV above line voltage.

Select (Synch) screen from the GE HMI to monitor synch scope.

Select <u>SYNCH MODE</u> from Synchronizing screen (2118) From *sub window* Select <u>AUTO</u>

Check that Generator Breaker closes.

Check that Watts and Vars are indicated.

Write down the time that the Generator Breaker closed.

:___ AM PM

Select (STARTUP), graphic from the DCS.

The CT Status Box will indicate [SPINNING RESERVE]

The load should indicate 16 mws

Adjust voltage as necessary

Load the unit to 40 MW's by selecting the MW Setpoint box & type in 40. Hit preselect to load unit.

After achieving 40 MW's the Operator will need to assure the water injection skid is ready for service.

#### (2225)

Select (Water Injection) graphic

Select water injection on, Valve & water injection pump will not come on until load is increased to approx 50MW's or 11.5 lbs/sec fuel flow. Increase load.



PROCEDURE NUMBER	
REV 1	
DATE 06/05/01	
Page 7 of 14	

Monitor decrease in NOx, exhaust temperature spread & turbine vibration as load is increased.

At this time the CT Load can be moved by way of three means.

- 1) Manually from the Speed/Load Control Box by pressing the RAISE or LOWER buttons from the sub window.
- 2) By selecting BASE Load from the Load Select Box. When you select this mode the CT will load to the max output of the machine under current conditions.
- 3) By selecting PRE-SELECT from the Load Select Box Before selecting this option you should enter the desired MW setpoint that you would like the CT Load to go to.

The Operator should check and monitor CEMS equipment and NOX readings. The Operator must use Best Management Practices to minimize emissions during start up and shutdown. Excess emissions shall not exceed 2 hours during any 24 hour period.

At this time the Operator should set the generator voltage control.

Select (Start-up), graphic from the DCS Select Generator Mode Box

The Operator has the option of placing the generator voltage controls in one of three modes. VAR Control, PF Control, or Off Mode. If VAR Control or PF Control is selected the Operator will have to imput the desired set point for the desired conditions needed. Currently the preferred method to run the generator is in the OFF mode.

Select Generator Mode Box Select OFF, PF or VAR

If PF or VAR is selected the Operator must input a set point as per desired curve.

Input set point

The unit can be loaded as needed at this time. The following table shows when the firing modes change on the CT during loading and un-loading.



LOCATION Martin Unit 8	PROCEDURE NUMBER	
Combustion Turbine	REV 1	
Inside Operator	DATE 06/05/01	
Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Fuel Oil	Page 8 of 14	

	LOADING	
FIRING MODE	FIRING TEMPERTURE	APPROX, LOAD
PM-MODE 3	Ignition to 16% speed	576 RM
PM-MODE 2	16% speed to 95% speed	576-3420 RPM
PM-MODE 1	95% speed to TTRFI=1630	3420 RP25MW
PM-MODE 3	TTRFI >1630	25MW-50MW
PM-MODE 4	TTRFI >2000	50MW-109MW
PM-MODE 5	TTRFI >2280, brief duration	Approx. 109 MW
PM-MODE 5Q	TTRFI > 2280 + A Time Delay to 6Q109 MW	Approx Load
PM MODE 6Q	TTRFI > 2280 to base Load	109MW-Base

	UNLOADING	
FIRING MODE	FIRING TEMPERTURE	APPROX. LOAD
PM-MODE 6Q	TTRFI = 2220F=time delay	78MW
PM-MODE 5Q	TTRFI = 2220F	78MW
PM-MODE 4	TTRFI = 1940 F	40MW
PM-MODE 3	TTRFI = 1570F	20mw
PM-MODE 1	FSNL OPERATING MODE	FSNL
		,

## To Go on Load Control:

- 1. After achieving base load operation, select "Preselect Load" from from load select box on Startup graphic. Unit will not respond to load control demands if "Base Load " is selected.
- 2. From "Station Load Control" graphic 2209, assure low limit is set at 80 to maintain 6Q operation. Click on the white lettered "Preselect Load". Next click on "Unit Master" located on PGBU DOC SERVER //jbxsw65/pgen/pmr/pmr eakers/procedures/draft



Martin Unit 8	PROCEDURE NUMBER
Combustion Turbine	REV 1
Inside Operator	DATE 06/05/01
Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Fuel Oil	Page 9 of 14

## To Go Off Load Control:

 To take unit off load control, click on "Preselect Load" white lettering on the "Station Load Control" graphic 2209. Next click on "Local".

## To Shutdown CT:

The CT can be shut down by two methods. One method used to shut down the CT will be to have the Operator push the Emergency Stop Button located at the Operator Station in the Control Room or the Emergency Stop Button in the PEECC. <u>Using this method should be limited to emergency conditions only.</u> This will trip the unit. The other method is to shut the unit down on a controlled shut down. This will be the preferred method of operation. This is accomplished by selecting STOP and then selecting OFF.

It should be noted that when this option is selected that the CT will ramp down at a 13.6% MW ramp per minute. The Operator and the Load Dispatcher must be prepared for the unit to ramp off line at that rate. The operator can Pre-Select Load to a desired lower set point where the load rate can be controlled and then select STOP and OFF. The operator can use the Speed/Load Control Box and select Lower to reduce load on the CT to a point where STOP and OFF can be selected.

SHUT DOWN (Controlled Shut Down)	
Inform the Outside Operator that the unit will be shutting down.	
Notify MLD that the unit will be shut down.	
Lower load on CT	

To use the Pre-Select Mode of reducing load follow the following steps.

(2100) Select (STARTUP), from the DCS.



Martin Unit 8	PROCEDURE NUMBER	
Combustion Turbine	REV 1	
Inside Operator	DATE 06/05/01	
Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Fuel Oil		

Select LOAD SELECT box Select Pre-Select Ld

The following steps take the Operator through the steps to lower load on the CT. The Operator can step down the load by reducing the set point. At this time the Operator would want to hold the load at 45 mw's. The reason for this is to allow the Operator to take the Gas Heater out of service, before the CT transfers from Mode 4 to Mode 3.

Select MW CONTROL	
Enter value of the desired MW that you want the CT to go to. (Hold at 45mw's) Select enter	
When the CT load is at 45 mw's	
(2005) Select (main fuel gas system), from the DCS	
Select FG HTR box	
Select STOP	
Select Direct fired HTR STPT box	
Check gas temperature to be decreasing	
Enter 20 mw's in the set point box (preselect load point)	
The CT load is at 20 MW's and you are ready for the unit to come off li	 ne.

(2100)

From the *(Start-up)*, graphic. Select <u>Master Control</u> Box Select STOP

Select Mode Select

FPL

PROCEDURE NUMBER	
REV 1	
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Page 11 of 14	

Select OFF	
The CT will ramp down to 0 mw's and the generator breaker will OPEN.	
The CT will start to lower in speed.	<del></del>
At approx. % speed the flame will be stopped. Approx. 750 rpm's	
The CT will coast down.	
At 40 RPM the Turning Gear Motor will start.	
COOLDOWN ON will be indicated ON.	
Check the CT to be rotating at 6 rpm	
Write down the time that the CT started rotating at 6 rpm:	AM PM

The following is a list of Start Check Permissives and actions to correct the problem.

#### Start Check 0

#### **Bus Undervoltage L27BN or L27BZ**

L27BN Bus Undervoltage this means that the Bus synchronizing potential is not available. Check Bus PT Fuses and wiring. DO NOT ATTEMPT to sync unit until problem is corrected. L27BZ

#### Compressor Inlet Thermocouples Disagree L86TCI

L86TCl means that you have a bad thermocouple signal. Thermocouples in the Inlet have failed or opened. Check Thermocouples and wiring and replace as needed.

	LOCATION Martin Unit 8	PROCEDURE NUMBER
	Combustion Turbine	REV 1
FPL	Inside Operator	DATE 06/05/01
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Fuel Oil	Page 12 of 14

#### **IGV Control Valve Fault L3IGVFLT**

L3IGVFLT this means that you have Inlet Guide Vane Servo Trouble. Check Servos for the Inlet Guide Vanes.

## **Customer Permissive to Start L3CP**

L3CP indicates that a trip signal is being sent to the MARK-VI Controls from an outside source that is not controlled by the MARK-VI. Those alarms that send a signal are as follows:

XXXXXX

#### Start Check 1

## **Lube Oil Tank Temperature Normal L26QN**

L26QN this indicates that the Lube Oil temperature is LOW. Check the operation of the Lube Oil Tank Heaters.

The Lube Oil Temperature must be 60 degrees before the turbine is allowed to start. You can check graphic 2506 BEARING TEMPERATURES for Bearing Header Temperature, there is no temperature indication for the Lube Oil Tank. If this temperature is Low check graphic 2505 MOTOR CONTROL, the Lube Oil Tank Heater should be ON.

#### Flame Detector Trouble L28FDSCK

L28FDSCK indicates that you have a flame established. Check graphic 2512, check Flame References to see what flame scanners is indicating a flame. You could open breaker XXXX to the flame scanners to see if this would clear the indication. Close the breaker back and check that flame does not reappear.

#### Control Mode-Off L430

L430 this indicates that OFF is selected. Select graphic 2500, START-UP, then select MODE SELECT. Select AUTO from sub window.

LOCATION Martin Unit 8	PROCEDURE NUMBER
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Normal Start-Up of Combustion Turbine to Simple Cycle Operation Fuel Oil	on on Page 13 of 14

## **Hydraulic Protective Trouble L86HD**

L86HD this means that one second after the hydraulic oil trip is initiated the hydraulic trip pressure has not decreased (63HG, 63 HL). Check the operation of 20FL and 20HD servos.

## **Generator Breaker not Closed L52GX**

L52GX indicates that the Generator Breaker is closed. Check generator breaker to be OPEN on graphic 2518, SYCHRONIZING.

#### EX2000 Exciter Alarm L30EX ALM

#### Start Check 2

Compressor Bleed Valve or IGV Position Lockout L86CBA Loss of Master Protective L4Y Master Protective Startup Trip L86MP Hydrogen Start Check L3STCK_HGEN Static Starter Shutdown L94SSX

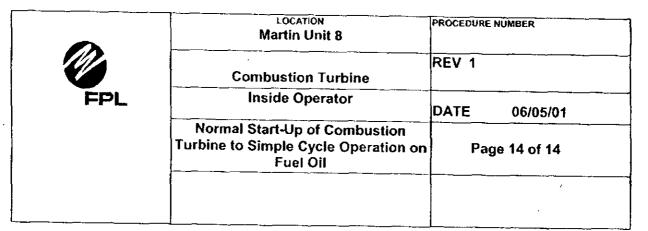
#### Start Check 3

Loss of Master Protective L4T HP Speed-Minimum Firing Speed L14HM

#### Vibration Start Inhibit L39VD3

L39VD3 this means that you have trouble with the vibration protection system. Check system for problems.

#### Loss of CDP Bias L3TFLT



L3TFLT this means that you are receiving a bad signal from the compressor discharge transmitter. Check the transmitter and connections for proper bias signal.

## How to clear a CRT screen should it freeze up:

If the CRT you are monitoring should freeze up, meaning you can't move the mouse, a soft boot is required to clear the problem. There is one computer for each of the two stacked screens in the back of the panel. At the appropriate computer you will find two buttons. The top button is used to power the computer while the one underneath is used for the soft boot. Hit this button once to reset the computer. Screens will go black & then require a cntrl/alt/del to restart. You will then need to enter the password "wdpf." Go to Programs/OvationNT/Ovation Applications/Graphics &/or Alarms. Drag screen where desired.

## **Attachment PMREU96b**

22	L20CATION Martin Unit 8	PROCEDURE NUMBER	
	Combustion Turbine	REV 0	
		DATE 06/05/01	
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas	Page 2 of 13	

#### **OBJECTIVE**

Perform normal start-up of Combustion Turbine for Simple Cycle operation on natural gas. This procedure contains the following:

Startup

How to go on & off load control

Shutdown

Start check definitions

How to soft boot screen should it freeze up

#### SAFETY AND ENVIRONMENTAL

ALL safety rules should be followed when starting the unit.

#### **PREREQUISITES**

The Combustion Turbine is on Turning Gear. (2100)

The Closed Cooling Water System is in service with fans running. (2105)

The Compressed Air system is in service. (2007)

NOTE: Time needed to start the unit with pre-arranged notification places having the Inside Operator "PUSH" the "START" button 1 hour before RFC time. The operator must prepare the unit to have it "Ready to Start" within that timeline.

If the Dispatcher calls for the Unit WITHOUT proper notification, the operator must be able to RFC the unit with 85 minutes of time notified that unit is needed.

The unit is considered Ready for Control when the Combustion Turbine has reached firing mode 6Q, NOx is below limits, and unit is stable.

Perform shift tailboard to review the activities of start up.

Review clearance book to verify that nothing has been taken out of service that will prevent the starting of the unit.

Review Mark VI points that are FORCED. To scan for forced points go to Programs\Ovation NT\Ovation Applications\Review. At this point go to Review on the top menu & hit "Set Review Filters." On the bottom menu hit "clear all". On Drops & Record Types hit "set all." Now check "Alarm check removed" & "Limit check removed" under Checking/Cutout Items. Under Other Reasons hit "Scan removed." After hitting OK then hit Go to review list.

Check Drop Status to be normal

Select Mode Select box, then select AUTO on Startup Screen (2100)

	L3OCATION Martin Unit 8	PROCEDURE NUMBER
	Combustion Turbine	REV 0
	Inside Operator	DATE 06/05/01
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas	Page 3 of 13
Verify <b>Generator Mo</b> o	de box, to be indicating <b>OFF</b>	•
Select Master Reset		
Check Status Box for	a Ready to Start	
If you do not get a "R	eady to Start" Check the START CHECK	S graphic. (2113)
still in red. (Go to end <b>(2105)</b> Select <i>(PUMP/FAN/N</i>	CKS), graphic from the DCS & investigate and of this procedure to review Problem areas of the DCS.  MOTOR CTRL), graphic from the DCS.  motor is actually running.	
	START UP THE COMBUSTION TU	<u>RBINE</u>
	te Operator that the Combustion Turbine h	as been walked down and is
ready to be started. Verify with the Outsid the Dispatcher.	de Operator that the Generator Disconnects	s are closed and reported to
When you are ready CT.	to start the CT make an announcement the	•
(2100) From the (STARTUF	P), graphic on the DCS.	
Select <u>FUEL</u>	gas for the purpose of this procedure	
Select MASTE	ER CONTROL	
From s	sub window Select START	
located on PGBU DOC SERVE	R //jbxsw65/pgen/pmr/pmr eakers/procedures/draft	

4	L4OCATION	PROCEDURE NUMBER	· · · · · · · · · · · · · · · · · · ·
	Martin Unit 8	i	
		REV 0	· · · · · · · · · · · · · · · · · · ·
	Combustion Turbine		
	Inside Operator	DATE 06/0	5/01
	Normal Start-Up of Combustion		
	Turbine to Simple Cycle Operation on Natural Gas	Page 4	l of 13
	T Starts. pox indicates [CRANKING]	<del>-</del>	AM PM
(2114) Select (STATIC STAR	RT), graphic from the DCS.		
_	nat 89ND is indicating OPEN		
	nat 89SS is indicating CLOSED		
	tatic Start reference out to be indicating 1	4.5 %	
·	Turbine Speed should be increasing	<b>].</b>	
Chack	CI Ref to be indicating 14.5%		
	NH to be increasing		<del></del>
Silver :	THE DO MICROSONING		
	CT will accelerate to 14.5% speed approx		
When sp	peed is reached the CT will hold at 525 RP		
Λ <b>.</b> 40	This is to allow for a purge of the CT		
Allei	5 minute purge the LCI will lower the spec	ed of the CT.	
	will coast down in speed to below 14.5% a		
The LCI v	will then bring the speed back up to firing s	peed 504 RPMs.	
OT Control of the disease			
CT Status will indicate	e [FIRING] on start up graphic		
(2101)			
	peration), graphic from the DCS.		
	R is set at 21.1%		
	Gas Vent Valve has CLOSED SRV Valve is OPEN		
	el Interstage Pressure to be 35-37 psig		
	have FLAME established on ALL four sc	anners	
	ode to be MODE 3		
SRV and PM1	,2,3, Quat REF and Fbk numbers		
Write down the time t	that FIRES were established in the CT	: AM	PM
Select (STARTUP), g	graphic from the DCS.		
located on PGBU DOC SERVE	R ///bxsw65/pgen/pmr/pmr eakers/procedures/draft		

	L50CATION Martin Unit 8	PROCEDURE NUMBER	
	Combustion Turbine	REV 0	
	Inside Operator	DATE 06/05/01	
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas		
Check that the F	FSR is set at 14 Box will indicate [WARMING UP]		
The CT will	set at 14.5% speed (525) for 1 Minute to	allow for warm up.	
(2114)			
	7), graphic from the DCS.		
Check that the I	Cl reference goes to 100%		
Select <b>(STARTUP),</b> gra	anhic from the DCS		
	SR is increasing		
	speed is increasing	<u></u>	
	dicate [ACCELLERATING]		
	egin to move from 34% to 57% degrees		
Select <b>(STATIC STAR</b> At 91% speed (in the speed (in the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the speed of the			
The CT wil When the CT	I continue to increase in speed. Due to in reaches 95% speed (3420 RPM) the EX2	creased fuel flow. 000 flashes the field.	
(2103)			
*	R), graphic from the DCS.		
	tages & exciter volts and amps	<u></u>	
	·	<del></del>	
(2005) Select (Main Find Sug	double form II DOO	•	
	tem), graphic from the DCS.  Jas supply pressure is steady	•	
When yo	u are ready to place the unit on line after	echieving FSNL.	
(2118)			
	VG), graphic from the DCS.		
	oad Control) to adjust speed to 3606 RPI	√l's	
Select (KV/KVA	R Control) to adjust voltage to 1 KV abov	e line voltage.	
	screen from the GE HMI to monitor synch		
Select SYNCH	MODE from Synchronizing screen (2118)		
located on PGBU DOC SERVER	//jbxsw65/pgen/pmr/pmr eakers/procgdures/draft		

66	L60CATION	PROCEDUR	RE NUMBER
	Martin Unit 8		
	Combustion Turbine	REV 0	
	Inside Operator	1	
		DATE	06/05/01
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas	on Page 6 of 13	
F	From sub window Select AUTO		
Check t	hat Generator Breaker closes. hat Watts and Vars are indicated. e time that the Generator Breaker closed.		: AM PM
The CT The loa Adjust v Load th to load			
After achieving	g 30 MW's the Operator will need to place the Gas	s Heating	System in service.
Notify the Out	side Operator to check out the Gas Heater for ser	vice.	
then place the	utside Operator will need to at the local panel sele controls back to "REMOTE". The heater can only ned & the heater inlet valve is open with the bypas	be reset	after gas flow has
(2005) Select ( <i>Main</i> i	fuel System), from the DCS to adjust heater outp hat the Set point entry pop up (enter 350 F) has a	ut.	
Select FG HT	R_Box		
action of The se	Should indicate"enable on"  point a 4 & ½ minute purge timer will activate before take place.  tpoint window will display "Ready for Op SP"  130 deg F	ore any f	urther
Check gas ter	rature set point to be 330 degrees. mperature to be increasing. Once gas temperature it can be loaded.	e reaches	310

77	L70CATION Martin Unit 8	PROCEDURE NUMBER
	Combustion Turbine	REV 0
	Inside Operator	DATE 06/05/01
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas	Page 7 of 13

After the 330 deg. set point is reached it will be necessary to move the load of the CT up to a point that the machine is firing in firing mode 6Q. This must be done in order to operate the unit within NOX limitations of 9ppm. At this time the CT Load can be moved by way of three means.

- 1) Manually from the Speed/Load Control Box by pressing the RAISE or LOWER buttons from the sub window.
- 2) By selecting BASE Load from the Load Select Box. When you select this mode the CT will load to the max output of the machine under current conditions.
- 3) By selecting PRE-SELECT from the Load Select Box Before selecting this option you should enter the desired MW setpoint that you would like the CT Load to go to.

The Operator should check and monitor CEMS equipment and NOX readings. The Operator must use Best Management Practices to minimize emissions during start up and shutdown. Excess emissions shall not exceed 2 hours during any 24 hour period.

At this time the Operator should set the generator voltage control.

Select (Start-up), graphic from the DCS Select Generator Mode Box

The Operator has the option of placing the generator voltage controls in one of three modes. VAR Control, PF Control, or Off Mode. If VAR Control or PF Control is selected the Operator will have to imput the desired set point for the desired conditions needed. Currently the preferred method to run the generator is in the OFF mode.

Select Generator Mode Box Select OFF, PF or VAR

If PF or VAR is selected the Operator must input a set point as per desired curve.

Input set point

The unit can be loaded as needed at this time. The following table shows when the firing modes change on the CT during loading and un-loading.

LOADING				
FIRING MODE	FIRING TEMPERTURE	APPROX. LOAD		
PM-MODE 3	Ignition to 16% speed	576 RM		

88	L80CATION Martin Unit B	PROCEDURE NUMBER
	Combustion Turbine	REV 0
į	Inside Operator	DATE 06/05/01
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas	Page 8 of 13

PM-MODE 2	16% speed to 95% speed	576-3420 RPM
PM-MODE 1	95% speed to TTRFI=1630	3420 RP25MW
PM-MODE 3	TTRFI >1630	25MW-50MW
PM-MODE 4	TTRFI >2000	50MW-109MW
PM-MODE 5	TTRFI >2280, brief duration	Approx. 109 MW
PM-MODE 5Q	TTRFI > 2280 + A Time Delay to 6Q109 MW	Approx Load
PM MODE 6Q	TTRF1 > 2280 to base Load	109MW-Base

CIDINO MODE	FIRM ATTANENTINE	100004 101
FIRING MODE	FIRING TEMPERTURE	APPROX. LOAD
PM-MODE 6Q	TTRFI = 2220F=time delay	78 <b>MW</b>
PM-MODE 5Q	TTRFI = 2220F	78MW
PM-MODE 4	TTRFI = 1940 F	40 <b>MW</b>
PM-MODE 3	TTRFI = 1570F	20mw
PM-MODE 1	FSNL OPERATING MODE	FSNL
	<b>\</b>	
	i	

## To Go on Load Control:

- 1. After achieving base load operation, select "Preselect Load" from from load select box on Startup graphic. Unit will not respond to load control demands if "Base Load" is selected.
- 2. From "Station Load Control" graphic 2209, assure low limit is set at 80 to maintain 6Q operation. Click on the white lettered "Preselect Load". Next click on "Unit Master"

## To Go Off Load Control:

1. To take unit off load control, click on "Preselect Load" white lettering on the "Station Load Control" graphic 2209. Next click on "Local".

99	L90CATION Martin Unit 8	PROCEDURE NUMBER
	Combustion Turbine	REV 0
	Inside Operator	DATE 06/05/01
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas	Page 9 of 13

## To Shutdown CT:

The CT can be shut down by two methods. One method used to shut down the CT will be to have the Operator push the Emergency Stop Button located at the Operator Station in the Control Room or the Emergency Stop Button in the PEECC. <u>Using this method should be limited to emergency conditions only</u>. This will trip the unit. The other method is to shut the unit down on a controlled shut down. This will be the preferred method of operation. This is accomplished by selecting STOP and then selecting OFF.

It should be noted that when this option is selected that the CT will ramp down at a 13.6% MW ramp per minute. The Operator and the Load Dispatcher must be prepared for the unit to ramp off line at that rate. The operator can Pre-Select Load to a desired lower set point where the load rate can be controlled and then select STOP and OFF. The operator can use the Speed/Load Control Box and select Lower to reduce load on the CT to a point where STOP and OFF can be selected.

SHUT DOWN (Controlled Shut Down)
Inform the Outside Operator that the unit will be shutting down.
Notify MLD that the unit will be shut down.
Lower load on CT
To use the Pre-Select Mode of reducing load follow the following steps.
(2100) Select (STARTUP), from the DCS.
Select LOAD SELECT box Select Pre-Select Ld

	<u> </u>		
1010	L10ocation Martin Unit 8	PROCEDURE NUMBER	l .
	Combustion Turbine	REV 0	· · · · · · · · · · · · · · · · · · ·
	Inside Operator	DATE	05104
	Normal Start-Up of Combustion	DATE 06/	05/01
	Turbine to Simple Cycle Operation on Natural Gas	Page 1	10 of 13
Operator can step dow want to hold the load a	te the Operator through the steps to lower on the load by reducing the set point. At the ot 45 mw's. The reason for this is to allow defore the CT transfers from Mode 4 to M	nis time the Oper the Operator to	ator would
Select MW CONTROL	:		
Enter value of the desi Select enter	red MW that you want the CT to go to. (H	old at 30mw's)	
When the CT load is	at 30 mw's & the gas temperature has dr heater can be taken out of service		deg F, the
(2005) Select <i>(main fuel gas</i>	system), from the DCS		
Select FG HTR box			·····
Select STOP			
Select Direct fired HT	R STPT box		
Check gas temperatur	re to be decreasing		
Enter 20 mw's in the s	set point box (preselect load point)		
The CT load	I is at 20 MW's and you are ready for the	unit to come off	line.
(2100) From the (Start-up), of Select Master Contro Select STOP	- •		
Select Mode Select Select OFF			
The CT will ramp dow	n to 0 mw's and the generator breaker w	II OPEN.	
The CT will start to lo	wer in speed.		
ttod on DORU DOC CEDUES	handed on DODLI DOC CEDVED. //hygus@finnenigmy/gymr.og/com/providitures/drsft		

1111	L11ocation Martin Unit 8	PROCEDU	RE NUMBER	
	Combustion Turbine	REV 0		
	Inside Operator	DATE	06/05/01	
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas		Page 11 of 13	
At approx. % sp	eed the flame will be stopped. Approx. 750 rpm	's		
The CT will coas	st down.			
At 40 RPM the	Furning Gear Motor will start.			
COOLDOWN O	N will be indicated <b>ON</b> .			
Check the CT to	be rotating at 6 rpm			

The following is a list of Start Check Permissives and actions to correct the problem.

#### Start Check 0

#### Bus Undervoltage L27BN or L27BZ

L27BN Bus Undervoltage this means that the Bus synchronizing potential is not available. Check Bus PT Fuses and wiring. DO NOT ATTEMPT to sync unit until problem is corrected.
L27BZ

#### Compressor Inlet Thermocouples Disagree L86TCI

L86TCI means that you have a bad thermocouple signal. Thermocouples in the Inlet have failed or opened. Check Thermocouples and wiring and replace as needed.

#### **IGV Control Valve Fault L3IGVFLT**

L3IGVFLT this means that you have Inlet Guide Vane Servo Trouble. Check Servos for the Inlet Guide Vanes.

#### **Customer Permissive to Start L3CP**

L3CP indicates that a trip signal is being sent to the MARK-VI Controls from an outside source that is not controlled by the MARK-VI. Those alarms that send a signal are as follows:

XXXXXX

1212	L120сатюн Martin Unit 8	PROCEDURE NUMBER
	Combustion Turbine	REV 0
	Inside Operator	DATE 06/05/01
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas	Page 12 of 13

XXXXXX

#### Start Check 1

### **Lube Oil Tank Temperature Normal L26QN**

L26QN this indicates that the Lube Oil temperature is LOW. Check the operation of the Lube Oil Tank Heaters. The Lube Oil Temperature must be 60 degrees before the turbine is allowed to start. You can check graphic 2506 BEARING TEMPERATURES for Bearing Header Temperature, there is no temperature indication for the Lube Oil Tank. If this temperature is Low check graphic 2505 MOTOR CONTROL, the Lube Oil Tank Heater should be ON.

#### Flame Detector Trouble L28FDSCK

L28FDSCK indicates that you have a flame established. Check graphic 2512, check Flame References to see what flame scanners is indicating a flame. You could open breaker XXXX to the flame scanners to see if this would clear the indication. Close the breaker back and check that flame does not reappear.

#### Control Mode-Off L430

L430 this indicates that OFF is selected. Select graphic 2500, START-UP, then select MODE SELECT. Select AUTO from sub window.

#### **Hydraulic Protective Trouble L86HD**

L86HD this means that one second after the hydraulic oil trip is initiated the hydraulic trip pressure has not decreased (63HG, 63 HL). Check the operation of 20FL and 20HD servos.

#### **Generator Breaker not Closed L52GX**

L52GX indicates that the Generator Breaker is closed. Check generator breaker to be OPEN on graphic 2518, SYCHRONIZING.

1313	L13ocation Martin Unit 8	PROCEDURE NUMBER
	Combustion Turbine	REV 0
	Inside Operator	DATE 06/05/01
	Normal Start-Up of Combustion Turbine to Simple Cycle Operation on Natural Gas	Page 13 of 13

#### EX2000 Exciter Alarm L30EX_ALM

#### Start Check 2

Compressor Bleed Valve or IGV Position Lockout L86CBA Loss of Master Protective L4Y Master Protective Startup Trip L86MP Hydrogen Start Check L3STCK_HGEN Static Starter Shutdown L94SSX

#### Start Check 3

Loss of Master Protective L4T HP Speed-Minimum Firing Speed L14HM

#### Vibration Start Inhibit L39VD3

L39VD3 this means that you have trouble with the vibration protection system. Check system for problems.

#### Loss of CDP Bias L3TFLT

L3TFLT this means that you are receiving a bad signal from the compressor discharge transmitter. Check the transmitter and connections for proper bias signal.

## How to clear a CRT screen should it freeze up:

If the CRT you are monitoring should freeze up, meaning you can't move the mouse, a soft boot is required to clear the problem. There is one computer for each of the two stacked screens in the back of the panel. At the appropriate computer you will find two buttons. The top button is used to power the computer while the one underneath is used for the soft boot. Hit this button once to reset the computer. Screens will go black & then require a cntrl/alt/del to restart. You will then need to enter the password "wdpf." Go to Programs/OvationNT/Ovation Applications/Graphics &/or Alarms. Drag screen where desired.