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AUG 20 2003

August 14, 2003

Scott M. Sheplak, P.E.
Bureau of Air Regulation
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5505
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

Re: Request to Revise Ft. Myers Title V Permit 0710002-012-AV to Incorporate Simple-Cycle Peaking Units 3A and 3B

Dear Mr. Sheplak,

FPL has completed construction, initial operation, and compliance testing of the newly installed simple-cycle peaking units 3A & 3B at the Ft. Myers Plant consistent with the terms of Air Construction Permit 0710002-013-AC. FPL desires to revise the existing Title V permit 0710002-012-AV to include the Simple-Cycle units 3A & 3B.

Enclosed are the R.O. page, P.E. page, and various other pages describing the simple-cycle units [Refer Attachment No. 1]. Since units 3A & 3B are identical, the unit specific information contained in Section III pertains to each unit and is submitted only once, rather than create a duplicate submission. The notifications of Commercial Operation, Performance/Emission testing results and CEM Certification were previously provided to the Department under separate cover.

While the Title V permit is open for the inclusion of the simple-cycle units, FPL requests a change to the language of existing Specific Condition C.9. on page 17 of the permit which applies to Combined-Cycle Units 2A-2F as follows:

- From: C.9. <u>Nitrogen Oxides CTs.</u> The concentration of NOx concentrations in the exhaust gas of each CT shall not exceed 9 ppmvd at 15% O₂ on a 30-day rolling average basis as measured by the CEMS (maintained in accordance with 40 CFR 75). Based on CEMS data at the end of each operating day, a new 30-day average rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. In addition, NOx emissions calculated as NO₂ (at ISO conditions) shall exceed neither 9 ppm @ 15% O₂ nor 65 lb/hr.
- To: C.9. Nitrogen Oxides CTs. The concentration of NOx concentrations in the exhaust gas of each CT shall not exceed 9 ppmvd at 15% O₂ on a 30-day rolling average basis as measured by the CEMS (maintained in accordance with 40 CFR 75). Based on CEMS data at the end of each operating day, a new 30-day average rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. In addition, NOx emissions calculated as NO2 (at ISO conditions) shall not exceed 9 ppm @ 15% O₂ nor 65 lb/hr (initial compliance test only).



The 65 lb/hr was applicable only to the initial compliance test as outlined in the Air Construction permit. Its reference, carried over in the Title V permit without clarification, has lead to confusion concerning an hourly NOx limit rather than the 30-day rolling average [Refer Attachment No. 2], and therefore, FPL requests it be clarified in Specific Condition C.9. to avoid the potential for future confusion. In addition, FPL requests that the references to the lb/hr limits be clarified in Table 1-1 Summary of Air Pollutant Standards and Terms as pertaining to the initial compliance test only.

Thank you for your assistance in this matter, and, if you should have any questions, please do not hesitate to contact me at (941) 631-4200, or Kevin Washington at (561) 691-2877.

The second of th

Very Truly yours,

William Reichel

Plant General Manager - Ft. Myers Plant

Florida Power and Light Company

Attachments: 2

Permit Revision Application
(Permit Revision
No. 0710002-015-AV)



Department of Environmental Protection

Division of Air Resources Management RECEIVED

APPLICATION FOR AIR PERMIT - TITLE V SOURCE 20 2003

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

BUREAU OF AIR REGULATION

I. APPLICATION INFORMATION

<u>Id</u>	entification of Facility				\$;	ere e di di
1.	Facility Owner/Compa Florida Power and Ligh	•			· · · · · · · · · · · · · · · · · · ·	
2.	Site Name:					
	Fort Myers Plant					
3.	Facility Identification 1	Number: 071000	2		[] Unknow	n
4.	Facility Location: Street Address or Othe City: Fort Myers	in the following to purely the	olitan ve Gyerra.	age to the continue of	Zip Code:	33905
5.	Relocatable Facility? [] Yes [X] No	The state of the s			ermitted Facilit	ÿ?************************************
Ar	plication Contact		, • ·	સ્ત્રામ• 	:	
1.	Name and Title of App Kevin Washington, Sen		l Special	ist		
2.	Application Contact M	ailing Address:				
	Organization/Firm:	Florida Power and	Light C	ompany		
	Street Address:	700 Universe Blvd				
	City:	Juno Beach	State:	FL	Zip Code:	33408

Application Processing Information (DEP Use)

3. Application Contact Telephone Numbers:

Telephone: (561) 691 - 2877

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

Fax: (561) 691 - 7049

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

Effective: 2/11/99

Purpose of Application

Air Operation Permit Application

Tł	his Application for Air Permit is submitted to obtain: (Check one)	
]] Initial Title V air operation permit for an existing facility which is classif source.	ied as a Title V
[] Initial Title V air operation permit for a facility which, upon start up of o constructed or modified emissions units addressed in this application, we classified as a Title V source.	-
	Current construction permit number:	
[X	[Title V air operation permit revision to address one or more newly construent emissions units addressed in this application.	cted or modified
	Current construction permit number:_0710002-013- AC	
	Operation permit number to be revised: 0710002-012 AV	
[] Title V air operation permit revision or administrative correction to address proposed new or modified emissions units and to be processed concurrent construction permit application. (Also check Air Construction Permit A	itly with the air
. '	Operation permit number to be revised/corrected:	
[] Title V air operation permit revision for reasons other than construction an emissions unit. Give reason for the revision; e.g., to comply with a ne requirement or to request approval of an "Early Reductions" proposal.	25.55 a
	Operation permit number to be revised:	<u> </u>
	Reason for revision:	· · · · · · · · · · · · · · · · · · ·
A	ir Construction Permit Application	
Ti	his Application for Air Permit is submitted to obtain: (Check one)	
[] Air construction permit to construct or modify one or more emissions un	its.
[Air construction permit to make federally enforceable an assumed restrict potential emissions of one or more existing, permitted emissions units.	ction on the
[Air construction permit for one or more existing, but unpermitted, emiss	ions units.

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9937613Y/F1/TV Effective: 2/11/99 2 8/11/03

Owner/Authorized Representative or Responsible Official

1.	Name and Title of Owner/Authorized Representative or Responsible Official
	William Reichel, Plant General Manager

2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Florida Power and Light Company, Fort Myers Plant

Street Address: P.O. Box 430

City: Fort Myers State: FL Zip Code: 33905

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:

Telephone: (941) 693 - 4200 Fax: (941) 693 - 4333

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative*(check here [], if so) or the responsible official (check here [X], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.

Signature

Date

Professional Engineer Certification

1. Professional Engineer Name: Kathryn S. Salvador, P.E.

Registration Number: 54726

2. Professional Engineer Mailing Address:

Organization/Firm: Florida Power & Light Co.

Street Address: P.O. Box 14000

City: Juno Beach State: FL Zip Code: 33408

3. Professional Engineer Telephone Numbers:

Telephone: (561) 691 - 7054 Fax: (561) 691 - 7049

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

4. Professional Engineer Statement:

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

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

If the purpose of this application is to obtain a Title V source air operation permit (check here [], 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 [X], 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.

Lany SSalvadn Signature

 $\frac{08/11/2003}{\text{Date}}$

Date

(seal)

^{*} Attach any exception to certification statement.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1.	Facility UTM Coor	dinates:		<i>:</i>
	Zone: 17	East (km):	422.3 Nort	th (km): 2952.9
2.	Facility Latitude/Lo	ongitude:	1 1 (DDAG	6/GG)
	Latitude (DD/MM/	SS): 26 / 41 / 49	Longitude (DD/MN	M/SS): 81 / 46 / 55
3.	Governmental	4. Facility Status	Facility Major	6. Facility SIC(s):
	Facility Code:	Code:	Group SIC Code:	
	0	Α	49	4 911
7.	Facility Comment (limit to 500 characters):		
			· · · · · · · · · · · · · · · · · · ·	
	Project consists of two 170-MW dual-fuel, General Electric Frame 7FA combustion turbines(CT) that will use dry low-nitrogen oxide combustion technology when firing natural			
	turbines(CI) that Wi	tion when firing distillate	fuel oil. Each CT will on	erate up to 8.760 hours
	per year.			
				A second
				The state of the s
	e e e e e e e e e e e e e e e e e e e			the second secon

Facility Contact

1.	Name and Title of Facility Contact:	
	Mr. Pornio Tibble Environmental Specialist	

2. Facility Contact Mailing Address:

Organization/Firm: Florida Power and Light Company

Street Address: P.O. Box 430

City: Fort Myers State: FL Zip Code: 33905

3. Facility Contact Telephone Numbers:

Telephone: (941) 693 - 4390 Fax: (941) 693 - 4333

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. [] One or More Emission Units Subject to NESHAP?
8. [] Title V Source by EPA Designation?
9. Facility Regulatory Classifications Comment (limit to 200 characters):
CT is subject to NSPS Subpart GG.

List of Applicable Regulations

Not Applicable	

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions	5. Pollutant Comment
	V1DD11.	lb/hour	tons/year	Сар	
PM V	A				Particulate Matter- Total
voc 🗸	A				Volatile Organic Compounds
so₂ √/	ΑV	·			Sulfur Dioxide
NO _x ✓✓	Α .			. *	Nitrogen Oxides
co√√	Α ·				Carbon Monoxides
PM₁0 ✓√	A √	e de la companya de l	a i	·	Particulate Matter- PM ₁₀
	1				
		<u> </u>			
		<u> </u>			

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	process or prod] 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	the contract of the contract o	n addresses, as a single emiss s which has at least one defin pitive emissions.	
	with the same of t	the control of the co	n addresses, as a single emis s which produce fugitive em	SUPER TRANSPORTER TO THE PROPERTY OF THE PROPE
2,	Regulated or Unro	egulated Emissions Unit	? (Check one)	
[X	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.			ction is an unregulated
3.	3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Two Identical GE Frame 7FA Combustion Turbines			
4.	Emissions Unit Id	lentification Number:		[] No ID
	ID:			[X] ID Unknown
5.	Emissions Unit	6. Initial Startup	7. Emissions Unit Major	8. Acid Rain Unit?
·	Status Code: C	Date:	Group SIC Code:	[x]
9.	Emissions Unit C	comment: (Limit to 500 C	Characters)	
	These emission units are GE Frame 7FA combustion turbines operating in simple cycle mode, plant designations Units 3A & 3B.			

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Emissions Unit Control Equipment

1.	Control Equipment/Method Description (Lin	nit to 200 characters per de	evice or method):
	Dry Low NO _X combustion - Natural gas firing		
	•		
			•.
2.	Control Device or Method Code(s): 25		

Emissions Unit Details

1	. Package Unit:	
	Manufacturer: General Electric	Model Number: 7FA
2	. Generator Nameplate Rating:	172 MW Each
3	. Incinerator Information:	
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

Emissions Unit Control Equipment

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

Water injection - distillate oil firing

2. Control Device or Method Code(s): 28

Emissions Unit Details

1. Package Unit:			V
Manufacturer:	General Electric	Model Number:	7FA

2. Generator Nameplate Rating: 172 MW Each

3. Incinerator Information:

Dwell Temperature: °F

Dwell Time: seconds

Incinerator Afterburner Temperature: °F

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

No. 1			1 / P / P :
Maximum Heat Input Rate:		1,600	mmBtu/hr Each
Maximum Incineration Rate	e: 1b/hr		tons/day
Maximum Process or Throu	ghput Rate:		
Maximum Production Rate:			
Requested Maximum Opera	ting Schedule:		
	hours/day		days/week
	weeks/year	8,760	hours/year
. Operating Capacity/Schedul Maximum heat input at ISO o 1,811 MMBtu/hr (ISO-LHV) ar	conditions and natural gas fi	ing (LHV); m	
Maximum heat input at ISO o	conditions and natural gas fi	ing (LHV); m	
Maximum heat input at ISO o	conditions and natural gas fi	ing (LHV); m	
Maximum heat input at ISO o √1,811 MMBtu/hr (ISO-LHV) ar	conditions and natural gas fi	ing (LHV); m	
Maximum heat input at ISO o √1,811 MMBtu/hr (ISO-LHV) ar	conditions and natural gas fi	ing (LHV); m	
Maximum heat input at ISO o √1,811 MMBtu/hr (ISO-LHV) ar 182 MW each.	conditions and natural gas fi	ing (LHV); m	
Maximum heat input at ISO of 1,811 MMBtu/hr (ISO-LHV) ar 182-MW each.	conditions and natural gas fi	ing (LHV); m	

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

Emission Point Description and Type

1. Identification of Point on Ple	ot Plan or	2. Emission Po	oint Type Code	9:
Flow Diagram?		,		
3. Descriptions of Emission Po	oints Comprising	g this Emissions U	Unit for VE Tr	acking (limit to
100 characters per point):				,12
Foot CT exhausts through a	ainala ataak	, /		
Each CT exhausts through a	i single stack.			
4. ID Numbers or Descriptions	of Emission U	nits with this Emi	ssion Point in	Common:
			•	
gat to the cast will be	5			
5. Discharge Type Code:	6. Stack Heig	ht:	7. Exit Diar	neter:
V		80 feet		20.5 feet
			Street Base of the Street Street	
8. Exit Temperature:	[1] A. A. Martin, Phys. Lett. B 50, 121 (1994).	umetric Flow	10. Water Va	international telephone appropriate to the contract of the co
1,116 °F	Rate:	89,462 acfm		8.4 %
11. Maximum Dry Standard Flo		12. Nonstack E	nission Point	Height:
800,00				feet
13. Emission Point UTM Coord	inates:	I		
Zone: 17 E	ast (km): 543.1	Nort	h (km): 2992	.9
14. Emission Point Comment (1	imit to 200 char	acters):		
041				11.4.0000E
Stack parameters for ISO op 2,464,273 ACFM; HPM 1,130°			s above; for o	11,098°F and
				•
1			and the second s	

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

<u>Se</u>	gment Description and Ra	ite: Segment 1	of 2		
1.	Segment Description (Pro	cess/Fuel Type) (limit to 500 ch	aracters):	
	Distillate (No. 2) Fuel Oil				
2.	Source Classification Cod 20100101	e (SCC):	3. SCC Units		
4.	Maximum Hourly Rate: 14	5. Maximum A 7,000	Annual Rate:	6. Estimated Annual Activit Factor:	<u>у</u>
7.	Maximum % Sulfur: 0.05	8. Maximum %	% Ash:	9. Million Btu per SCC Uni 130	t:
<u>Se</u>	Million Btu per SCC Unit = ISO conditions, 500 hrs/yr	operation.		n 7.1 lb/gal; LHV of 18,300 Btu/lk	,
1.	Segment Description (Pro	cess/Fuel Type)	(limit to 500 cl	haracters):	
	Natural Gas				:
2.	Source Classification Cod	e (SCC):	3. SCC Uni	ts:	
	20100201		Million Cu		
4.	Maximum Hourly Rate: 1.68	5. Maximum Annual Rate: 14,752		6. Estimated Annual Activity Factor:	y
7.	Maximum % Sulfur:	8. Maximum %	% Ash:	9. Million Btu per SCC Unit 950	:
10	. Segment Comment (limit Based on 950 Btu/cf (LHV)	Ź	•	operation.	

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9937613Y/F1/TV Effective: 2/11/99 16 8/11/03

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
РМ			EL : **
SO₂			EL
NO _x	026	028	EL
со			EL
voc			EL
PM.10			EL
			The second secon
		- 	
			· · · · · · · · · · · · · · · · · · ·
	:	_	
		·	
		<u> </u>	
		-	
	-		
		·	

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Effective: 2/11/99

Emissions Unit Information Section	1	of _	2	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	1	of	6	Particulate Matter - Tota

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1	Pollutant Emitted:	2. Total Percent Efficiency of Control:				
1.	PM	2. Total Telechi Efficiency of Control.				
			· .			
3.	Potential Emissions:	4. Synthetically	<i>'</i>			
	17 lb/hour	45.6 tons/year Limited?	[X]			
5.	Range of Estimated Fugitive Emissions:					
	[] 1 [] 2 [] 3	totons/year				
6.	Emission Factor:	7. Emissions				
	Reference: GE, 2000; Golder	Method Cod	e:			
8.	Calculation of Emissions (limit to 600 charac	cters):				
i	ovided in Air Construction Permit Application A		A			
		·	. *			
9.	Pollutant Potential/Fugitive Emissions Comr Lb/hr based on oil firing, all loads. Tons/yr ba hrs/yr oil firing and 500 hours HPM; ISO cond	ased on 7,760 hrs/yr gas firing baseload, 50	0			
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:	4. Equivalent Allowable Emissions:				
	10% opacity	17 lb/hour 4.25 tons/yea	ır			
5.	Method of Compliance (limit to 60 character	rs):				
	Annual stack test; EPA Method 9; if > 400 hou	urs	·			
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to 200 characters):				
	Oil firing - all loads; 500 hrs/yr. Provided in Air Construction Permit Application Attachment FPL-FMI; Section 2.0; Appendix A.					

Emissions Unit Information Section	1	of _	2	Combustion Turbines 3A & 3B
Pollutant Detail Information Page	1	of	6	Particulate Matter - Total

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1.	Pollutant Emitted:	2. Total Percent Efficie	ency of Control:
,	PM		
3.	Potential Emissions:		4. Synthetically
	17 lb/hour	45.6 tons/year	Limited? [X]
5.	Range of Estimated Fugitive Emissions:	to to	ns/year
6.	Emission Factor:	toto	7. Emissions
0.	Reference: GE, 2000; Golder		Method Code:
8.	Calculation of Emissions (limit to 600 charac	cters):	7 9 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
		Maria de Poi Filia	
Pro	ovided in Air Construction Permit Application A	Attachment FPL-FWI; Sec	tion 2:0; Appendix A.
			·
9.	Pollutant Potential/Fugitive Emissions Comm	nent (limit to 200 charac	ters):
	Lb/hr based on oil firing, all loads. Tons/yr ba	sed on 7.760 hrs/vr gas fi	iring baseload. 500
	hrs/yr oil firing and 500 hours HPM; ISO cond		3
Al	lowable Emissions Allowable Emissions	2 of 3	
1.	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:
	10% opacity	10 lb/hour	43.8 tons/year
5.	Method of Compliance (limit to 60 character	rs):	
	VE Took < 409/ openitus EDA Mathod 0		
	VE Test < 10% opacity; EPA Method 9		
6.	Allowable Emissions Comment (Desc. of Op	perating Method) (limit to	o 200 characters):
Ga	s firing - all loads; 8,760 hrs/yr. Provided in Air	Construction Permit Ann	lication Attachment
	L-FMI; Section 2.0; Appendix A.	outstanding the App	

Emissions Unit Information Section	1	of _	2_	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	1	of	6	Particulate Matter - Tota

Emissions-Limited and Preconstruction Review Pollutants Only)

Potentia	l/Fugitive	Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:				
PM					
3. Potential Emissions:	4. Synthetically				
17 lb/hour	45.6 tons/year Limited? [X]				
5. Range of Estimated Fugitive Emissions:	to tons/year				
6. Emission Factor:	7. Emissions				
Reference: GE, 2000; Golder	Method Code:				
8. Calculation of Emissions (limit to 600 charac	eters):				
Provided in Air Construction Permit Application A	Attachment FPL-FMI; Section 2.0; Appendix A.				
9. Pollutant Potential/Fugitive Emissions Comr	nent (limit to 200 characters):				
Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.					
Allowable Emissions 3 of 3					
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:				
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:				
10% opacity	10 lb/hour 2.5 tons/year				
5. Method of Compliance (limit to 60 character	s):				
VE Test < 10% opacity, EPA Method 9					
6. Allowable Emissions Comment (Desc. of Op	perating Method) (limit to 200 characters):				
HPM firing -100% load; 500 hrs/yr. Provided in Air FPL-FMI; Section 2.0; Appendix A.	Construction Permit Application Attachment				

Emissions Unit Information Section	1	_ of _	2	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	2	of	6	Sulfur Dioxides

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Efficie	ency of Control:		
SO ₂				
3. Potential Emissions:	· .	4. Synthetically		
103.1 lb/hour	44.9 tons/year	Limited? [X]		
5. Range of Estimated Fugitive Emissions:	4	i 		
	to to	ns/year		
6. Emission Factor:		7. Emissions Method Code:		
Reference: GE, 2000; Golder	<u> </u>	2		
8. Calculation of Emissions (limit to 600 chara	cters):			
Provided in Air Construction Permit Application	Attachment FPL-FMI; Sec	tion 2.0; Appendix A.		
The market of the Market of the second of th		en en german en		
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 charac	tere):		
9. Tollutant Totellian ugitive Emissions Com	ment (mint to 200 charac	icisj.		
Emission Factor: 1 grain S per 100 CF gas; (
load and 35°F. Tons/yr based on 7,760 hrs/yr gas firing; 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.				
	<u> </u>	• .		
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>			
1. Basis for Allowable Emissions Code:	2. Future Effective Da	ate of Allowable		
OTHER	Emissions:	<u> </u>		
3. Requested Allowable Emissions and Units:	4. Equivalent Allowal	ole Emissions:		
0.05% Sulfur Oil	103.1 lb/hour	24.7 tons/year		
5. Method of Compliance (limit to 60 character	rs):			
Fuel Sampling				
-				
6. Allowable Emissions Comment (Desc. of O	perating Method) (limit t	o 200 characters):		
Oil firing max @ 35°F; 100% load; TPY @ 59°F 50	0 hrs/vr. Provided in Air 0	Construction Permit		
Application Attachment FPL-FMI; Section 2.0; Ap				

Emissions Unit Information Section	1	_ of _	2	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	2	of	6	Sulfur Dioxides

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1	Dollytont Emittod	2 T	otal Dargant Effici.	on our of Control		
1.	Pollutant Emitted:		2. Total Percent Efficiency of Control:			
	SO ₂					
3.	Potential Emissions:			4. Synthetically		
	103.1 lb/hour	44.9	tons/year	Limited? [X]		
5.	Range of Estimated Fugitive Emissions:					
	[] 1 [] 2 [] 3		to to	ns/year		
6.	Emission Factor:			7. Emissions		
	Reference: GE, 2000; Golder			Method Code:		
8.	Calculation of Emissions (limit to 600 charac	cters):				
_:	역상은 전환 나는 이번 하나는 것 됐다.	y				
Pro	ovided in Air Construction Permit Application A	Attach	ment FPL-FMI; Sec	tion 2.0; Appendix A.		
		rigger – Tr				
			e was a little of the control of the			
	e en la companya de			•		
9.	Pollutant Potential/Fugitive Emissions Comm	ment (limit to 200 charac	ters):		
	Emission Factor: 1 grain S per 100 CF gas; 0. and 35°F. Tons/yr based on 7,760 hrs/yr gas conditions.					
<u>Al</u>	Allowable Emissions 2 of 3					
1.	Basis for Allowable Emissions Code: OTHER	1	Future Effective Da	ate of Allowable		
3.	Requested Allowable Emissions and Units:	4.]	Equivalent Allowa	ble Emissions:		
	See Comment		5.1 lb/hour	21.5 tons/year		
5.	Method of Compliance (limit to 60 character	s):				
	Fuel Sampling		•	1 · / · · · · · · · · · · · · · · · · ·		
6.	Allowable Emissions Comment (Desc. of Op	peratir	ng Method) (limit t	o 200 characters):		
35°	quested allowable emissions and units: Pipeli F, 100% load; 8,760 hrs/yr. Provided in Air Cor I; Section 2.0; Appendix A.					

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Emissions Unit Information Section	1	of _	2	٠.	Combustion Turbines 3A & 3B
Pollutant Detail Information Page	2	of	6		Sulfur Dioxides

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions	Potentia	l/Fugitive	Emissions
------------------------------	----------	------------	------------------

1. Pollutant Emitted:	2. Total Percent Efficient	ency of Control:			
SO ₂					
3. Potential Emissions:		4. Synthetically			
103.1 lb/hour	44.9 tons/year	Limited? [X]			
5. Range of Estimated Fugitive Emissions:					
	to to	ns/year			
6. Emission Factor:		7. Emissions			
Reference: GE, 2000; Golder		Method Code:			
8. Calculation of Emissions (limit to 600 charac	cters):				
Provided in Air Construction Permit Application A	Attachment FPL-FMI; Sec	tion 2.0; Appendix A.			
O Dellate at Detentiol (Funition Funition Comme	(1::+ +- 200 -h	-t\			
9. Pollutant Potential/Fugitive Emissions Com	nent (mint to 200 charac	ners).			
Emission Factor: 1 grain S per 100 CF gas; 0.05% S oil; lb/hr based on oil firing at 100%					
load and 35°F. Tons/yr based on 7,760 hrs.					
HPM firing; ISO conditions.	•				
Allowable Emissions 3 of 3					
	· · · · · · · · · · · · · · · · · · ·	C A 11 1 1			
1. Basis for Allowable Emissions Code: OTHER	2. Future Effective D	ate of Allowable			
	Emissions:	hla Emiladana			
3. Requested Allowable Emissions and Units:	4. Equivalent Allowa	ble Emissions:			
See Comment	5.3 lb/hour	1.3 tons/year			
5. Method of Compliance (limit to 60 character	rs):				
	•				
Fuel Sampling					
6. Allowable Emissions Comment (Desc. of Op	perating Method) (limit t	o 200 characters):			
Requested allowable emissions and units: Pipeli					
35°F, 100% load; 500 hrs/yr. Provided in Air Cons FMI; Section 2.0; Appendix A.	truction Permit Applicati	on Attachment FPL-			
Timi, Section 2.0, Appendix A.					

Emissions Unit Information Section	. 1	of	2	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	3	of	6	Nitrogen Oxides

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Efficie	ency of Control:			
NO _X					
3. Potential Emissions:	-	4. Synthetically			
333.8 lb/hour	370.6 tons/year	Limited? [X]			
5. Range of Estimated Fugitive Emissions:					
[] 1 [] 2 [] 3	to to	ns/year			
6. Emission Factor:		7. Emissions			
Reference: GE, 2000; Golder		Method Code:			
8. Calculation of Emissions (limit to 600 charac	cters):	,			
	Markey Application	41			
Provided in Air Construction Permit Application A	Attachment FPL-FMI; Sec	tion 2.0; Appendix A.			
9. Pollutant Potential/Fugitive Emissions Com	nent (limit to 200 charac	eters):			
I h/hr hased on oil firing: 100% load: 35°E 7	onelyr based on 7 760 b	rehir age firing and			
Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr HPM firing; ISO conditions.					
Allowable Emissions Allowable Emissions	<u>1</u> of <u>3</u>				
1. Basis for Allowable Emissions Code:	2. Future Effective Da	ate of Allowable			
OTHER	Emissions:				
3. Requested Allowable Emissions and Units:	4. Equivalent Allowal	ble Emissions:			
42 ppmvd	333.8 lb/hour	79.8 tons/year			
5. Method of Compliance (limit to 60 character	rs):				
CEM - 30 Day Rolling Average		•			
6. Allowable Emissions Comment (Desc. of Op	perating Method) (limit t	o 200 characters):			
Paguastad Allowable Emissions is at 45% O. 400	% load. Oil firings may 6	35°E. 100% lood.			
Requested Allowable Emissions is at 15% O ₂ -100 TPY @ 59°F, 500 hrs/yr. Provided in Air Construc					
Section 2.0; Appendix A.		,			

Emissions Unit Information Section	1	of	2	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	3	of	6	Nitrogen Oxides

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
NO _X	
3. Potential Emissions:	4. Synthetically
333.8 lb/hour	370.6 tons/year Limited? [X]
5. Range of Estimated Fugitive Emissions:	
[] 1 [] 2 [] 3	to tons/year
6. Emission Factor:	7. Emissions
Reference: GE, 2000; Golder	Method Code:
8. Calculation of Emissions (limit to 600 chara	cters):
Provided in Air Construction Permit Application	Attachment FPL-FMI; Section 2.0; Appendix A.
O. D. Hadand Dadand's 1/Facilities Funitaria. Com	
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 characters):
Lb/hr based on oil firing: 100% load: 35°F. To	ons/yr based on 7,760 hrs/yr gas firing and 500
hrs/yr oil and 500 hrs/yr HPM firing; ISO cond	
Allowable Emissions Allowable Emissions	2 of 3
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
OTHER	Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
10.5 ppmvd	71.6 lb/hour 299.7 tons/year
5. Method of Compliance (limit to 60 characte	rs):
CEM - 30 Day Rolling Average	
6. Allowable Emissions Comment (Desc. of O	perating Method) (limit to 200 characters):
Requested Allowable Emissions and Units is at 7 TPY @ 59°F, 8,760 hrs/yr. Provided in Air Constr Section 2.0; Appendix A.	

Emissions Unit Information Section	1	of	2 .	Combustion Turbines 3A & 3B
Pollutant Detail Information Page	3	of	6	Nitrogen Oxides

Emissions-Limited and Preconstruction Review Pollutants Only)

	Potential/Fu	<u>gitive</u>	Emissions
--	--------------	---------------	------------------

1.	Pollutant Emitted:	2.	Total Percent Eff	iciency	of Control:
	NO _X				
3.	Potential Emissions: 333.8 lb/hour	370.€	tons/year	4.	Synthetically Limited? [X]
5.	Range of Estimated Fugitive Emissions:				
	[] 1 [] 2 [] 3		to	tons/ye	
6.	Emission Factor:			7.	Emissions
	Reference: GE, 2000; Golder				Method Code:
8.	Calculation of Emissions (limit to 600 charac	cters) :		
Pro	ovided in Air Construction Permit Application	Attac	hment FPL-FMI; \$	Section	2.0; Appendix A
9.	Pollutant Potential/Fugitive Emissions Comm Lb/hr based on oil firing; 100% load; 35°F. To hrs/yr oil and 500 hrs/yr HPM firing; ISO cond	ns/y	r based on 7,760		
Al	lowable Emissions Allowable Emissions	3_	of 3		
1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Emissions:	Date o	of Allowable
3.	Requested Allowable Emissions and Units:	4.	Equivalent Allo	wable I	Emissions:
	15 ppmvd		105.1 lb/ho	ur	25.3 tons/year
5.	Method of Compliance (limit to 60 character	s):			
	CEM - 30 Day Rolling Average				
6.	Allowable Emissions Comment (Desc. of Op	erati	ng Method) (lim	it to 20	0 characters):
TP	quested Allowable Emissions and Units is at 19 Y @ 59°F, 500 hrs/yr. Provided in Air Construct ction 2.0; Appendix A.	5% C	o₂-100% load. HP Permit Applicatio	M firing n Attacl	ı; 35°F; 100% load; hment FPL-FMI;

Emissions Unit Information Section	. 1	_ of _	2	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	4	of	6	Carbon Monoxide

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
co	
3. Potential Emissions: 68.1 lb/hour	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions:	
[] 1 [] 2 [] 3	to tons/year
6. Emission Factor:	7. Emissions
Reference: GE, 2000; Golder	Method Code:
8. Calculation of Emissions (limit to 600 characteristics) Provided in Air Construction Permit Application A	
 Pollutant Potential/Fugitive Emissions Community Lb/hr based on oil firing; 100% load; 35°F. T 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO of 	ons/yr based on 7,760 hrs/yr gas firing and
Allowable Emissions Allowable Emissions	1 of 3
Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
20 ppmvd - Baseload	68.1 lb/hour 16.2 tons/year
5. Method of Compliance (limit to 60 character	rs):
EPA Method 10; high load	
6. Allowable Emissions Comment (Desc. of Op	perating Method) (limit to 200 characters):
Oil firing; max @ 35°F; 100% load; TPY @ 59°F, 50 Application Attachment FPL-FMI; Section 2.0; Ap	

Emissions Unit Information Section	· 1	of _	2	Combustion Turbines 3A & 3B
Pollutant Detail Information Page	4	of	6	Carbon Monoxide

Potential/Fugitive Emissions

<u> </u>	tential/Fugitive Emissions			
1.	Pollutant Emitted:	2.	Total Percent Effici	ency of Control:
	со			
3.	Potential Emissions:			4. Synthetically
	68.1 lb/hour	139.8	tons/year	Limited? [X]
5.	Range of Estimated Fugitive Emissions:			
	[] 1 [] 2 [] 3		to to	ons/year
6.	Emission Factor:			7. Emissions
	Reference: GE, 2000; Golder			Method Code: 2
8.	Calculation of Emissions (limit to 600 chara	cters) :	
_		1		
Pro	ovided in Air Construction Permit Application	Απас	nment FPL-FMI; Sec	πon 2.0; Appendix A.
9.	Pollutant Potential/Fugitive Emissions Com	ment	(limit to 200 charae	cters):
	Lb/hr based on oil firing; 100% load; 35°F. 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO			nrs/yr gas firing and
Al	lowable Emissions Allowable Emissions	2	of 3	
1.	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:
	12 ppmvd		30.3 lb/hour	126.0 tons/year
5.	Method of Compliance (limit to 60 characte	rs):		
	EPA Method 10; high load			·
			·· · · · ·	
6.	Allowable Emissions Comment (Desc. of O	perat	ing Method) (limit	to 200 characters):
	s firing; 35°F; 100% load; TPY @ 59°F, 8,760 h plication Attachment FPL-FMI; Section 2.0; Ap	•		nstruction Permit

Emissions Unit Information Section	. 1	1	of	2	Combustion Turbines 3A & 3B
Pollutant Detail Information Page	. 4	1	of	6	Carbon Monoxide

Potential/Fugitive Emissions

1. Pollutant Emitted:		2. Total Percent Efficiency of Control:				
	со					
3.	Potential Emissions: 68.1 lb/hour	139.8 tons/year	I. Synthetically Limited? [X]			
5.	Range of Estimated Fugitive Emissions:					
6	[] 1 [] 2 [] 3 Emission Factor:		/year 7. Emissions			
0.	Reference: GE, 2000; Golder		Method Code:			
8.	Calculation of Emissions (limit to 600 ch	aracters):	91 A \$1M U			
Pro	ovided in Air Construction Permit Application	on Attachment FPL-FMI; Section	on 2.0; Appendix A.			
			West and the second sec			
9.	Pollutant Potential/Fugitive Emissions Co	omment (limit to 200 characte	rs):			
	Lb/hr based on oil firing; 100% load; 35°F. hrs/yr oil and HPM firing; ISO conditions	Tons/yr based on 7,760 hrs/y	r gas firing and 500			
All	lowable Emissions Allowable Emissions	3 of 3				
1.	Basis for Allowable Emissions Code: OTHER	2. Future Effective Date Emissions:	e of Allowable			
3.	Requested Allowable Emissions and Unit	s: 4. Equivalent Allowable	e Emissions:			
	15 ppmvd	50.5 lb/hour	12.0 tons/year			
5.	Method of Compliance (limit to 60 chara-	eters):				
	EPA Method 10; high load					
6.	Allowable Emissions Comment (Desc. of	Operating Method) (limit to	200 characters):			
	M firing; 35°F; 100% load; TPY @ 59°F, 500 plication Attachment FPL-FMI; Section 2.0;		uction Permit			

Emissions Unit Information Section	_ 1	of	2	Combustion Turbines 3A & 3B
Pollutant Detail Information Page	5	of	6	Volatile Organic Compounds

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

<u> </u>	tolicial/1 agiti v Dilliosiolis				
1.	Pollutant Emitted:	2.	То	tal Percent Effici	ency of Control:
	voc				
3.	Potential Emissions:				4. Synthetically
••	7.6 lb/hour	13.1	1	tons/year	Limited? [X]
5.	Range of Estimated Fugitive Emissions:	10.	•	tons/year	Emined. [X]
٥.	[] 1 [] 2 [] 3			to to	ns/year
6.	Emission Factor:	,			7. Emissions
	Reference: GE, 2000; Golder				Method Code: 2
8.	Calculation of Emissions (limit to 600 chara	cters	s): ·		
		in in in in it. Part San			
	ovided in Air Construction Permit Application				tion 2.0; Appendix A.
₌ VO	C emissions exclusive of background VOC co	ncer	ntra	ations.	
			il.		
		. :		• •	
	D. 11				
9.	Pollutant Potential/Fugitive Emissions Com	ment	t (1	imit to 200 charac	iters):
	Lb/hr based on oil firing; 100% load; 35°F. To hrs/yr oil and 500 hrs/yr HPM firing; ISO cond				/yr gas firing and 500
<u>Al</u>	lowable Emissions Allowable Emissions	1	0:	f	<u> </u>
1	Basis for Allowable Emissions Code:	2	F	uture Effective D	ate of Allowable
**	OTHER	~.		missions:	alo of fillowable
3.	Requested Allowable Emissions and Units:	4.	E	quivalent Allowa	ble Emissions:
	3.5 ppmvw			7.6 lb/hour	1.8 tons/year
5.	Method of Compliance (limit to 60 character	rs):			
		,			•
-	EPA Method 25A; high load				
6.	Allowable Emissions Comment (Desc. of O	perat	tin	g Method) (limit t	o 200 characters):
	firing; max @ 35°F; 100% load; TPY @ 59°F, 5 plication Attachment FPL-FMI; Section 2.0; Ap				Construction Permit

Emissions Unit Information Section	1	of	2	Combustion Turbines 3A & 3B
Pollutant Detail Information Page	5	of	6	Volatile Organic Compounds

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Effici	ency of Control:
voc		
3. Potential Emissions:		4. Synthetically
7.6 lb/hour	13.1 tons/year	Limited? [X]
5. Range of Estimated Fugitive Emissions:		
	to to	ons/year
6. Emission Factor:		7. Emissions
Reference: GE, 2000; Golder		Method Code:
8. Calculation of Emissions (limit to 600 chara	cters):	
	Attachment FDI FMI Co.	41 20. AII A
Provided in Air Construction Permit Application	Attachment FPL-FMI; Sec	cuon 2.0; Appendix A.
	and the state of t	
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 chara	oters).
7. Tonutant Totontiable agrice Emissions Com	ment (mint to 200 chara	cicisj.
Lb/hr based on oil firing; 100% load; 35°F. To		s/yr gas firing and 500
hrs/yr oil and 500 hrs/yr HPM firing; ISO cond	ditions	
Allowable Emissions Allowable Emissions	2 of 3	
1. Basis for Allowable Emissions Code:	2. Future Effective D	ate of Allowable
OTHER	Emissions:	
3. Requested Allowable Emissions and Units:	4. Equivalent Allowa	ble Emissions:
1.5 ppmvd	2.9 lb/hour	12.0 tons/year
5. Method of Compliance (limit to 60 characte	rs):	•
EPA Method 25A; high load		÷
6. Allowable Emissions Comment (Desc. of O	perating Method) (limit	to 200 characters):
Additional accurated allowable amineione and a	-ita. Caa firiran 2595, 400	00/ lood, TDV @ 5095
Additional requested allowable emissions and un 8,760 hrs/yr. Provided in Air Construction Permit	_ · · · · · · · · · · · · · · · · · · ·	
Appendix A.		, 00000011 210,
		•

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Emissions Unit Information Section	1	of _	2	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	5	of	6	Volatile Organic Compounds

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1.	Pollutant Emitted:	2.	Tot	al Perc	ent Effici	ency	of Control:
	VOC						
3.	Potential Emissions: 7.6 lb/hour	13.1	1	tons	/year	4.	Synthetically Limited? [X]
5.	Range of Estimated Fugitive Emissions:						
	[] 1 [] 2 [] 3	_		to _	to	ns/y	ear
6.	Emission Factor:					7.	Emissions
	Reference: GE, 2000; Golder						Method Code: 2
8.	Calculation of Emissions (limit to 600 charac	cters):				e e say e
Pro	ovided in Air Construction Permit Application A	Attac	hm	ent FPL	FMI; Sec	tion	2.0; Appendix A.
			v.				
			٠				
	• .						
							• •
9.	Pollutant Potential/Fugitive Emissions Comm	nent	(li	mit to 2	200 chara	cters):
	Lb/hr based on oil firing; 100% load; 35°F. T 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO o		-		on 7,760 h	ı rs/ yı	r gas firing and
Al	lowable Emissions Allowable Emissions	3	of	3			
1.	Basis for Allowable Emissions Code: OTHER	2.		iture Ef		ate	of Allowable
3.	Requested Allowable Emissions and Units:	4.	E	quivaler	nt Allowa	ble I	Emissions:
	1.5 ppmvd			2.9 ll	o/hour		0.7 tons/year
5.	Method of Compliance (limit to 60 character	s):					
	EPA Method 25A; high load						
6.	Allowable Emissions Comment (Desc. of Op	erat	ing	Metho	d) (limit	to 20	00 characters):
500	ditional requested allowable emissions and un hrs/yr. Provided in Air Construction Permit A pendix A.						

Emissions Unit Information Section	1	of	2_	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	6	of	6	Particulate Matter - PM10

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1.	Pollutant Emitted:	2.	Total Percent Efficiency of Control:
	PM ₁₀		
3.	Potential Emissions:		4. Synthetically
	17 lb/hour	45.€	.6 tons/year Limited? [X]
5.	Range of Estimated Fugitive Emissions:		
	[] 1 [] 2 [] 3	_	totons/year
6.	Emission Factor:		7. Emissions
	Reference: GE, 2000; Golder		Method Code:
8.	Calculation of Emissions (limit to 600 charac	cters	s):
ate to			
Pro	ovided in Air Construction Permit Application A	Attac	chment FPL-FMI; Section 2.0; Appendix A.
	Control of the Contro	i aparino en	
g 7 : ***			
9.	Pollutant Potential/Fugitive Emissions Comm	ment	et (limit to 200 characters):
	Lb/hr based on oil firing; 100% load; 59°F. To hrs/yr oil firing and 500 hours HPM; ISO cond		
All	owable Emissions Allowable Emissions	1	of3
1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
,	10% opacity		17 lb/hour 4.25 tons/year
5.	Method of Compliance (limit to 60 character	rs):	
, ·	Annual stack test; EPA Method 9 if >400 hour	s	· .
6.	Allowable Emissions Comment (Desc. of Op	perat	ting Method) (limit to 200 characters):
	firing - all loads; 500 hrs/yr. Provided in Air Co I; Section 2.0; Appendix A.	onstr	truction Permit Application Attachment FPL-

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Emissions Unit Information Section	. 1	of	2	Combustion Turbines 3A & 3E
Pollutant Detail Information Page	6	of	6	Particulate Matter - PM10

Emissions-Limited and Preconstruction Review Pollutants Only)

1.	Pollutant Emitted:	2.	Total Perd	ent Efficie	ency o	of Control:	: '
	PM ₁₀						:
3.	Potential Emissions:				4.	Synthetica	lly
	17 lb/hour	45.6	ton	s/year]	Limited?	[X]
5.	Range of Estimated Fugitive Emissions:						
			to	to	ns/ye		
6.	Emission Factor:				1	Emissions	-
	Reference: GE, 2000; Golder					Method Co	ode:
8.	Calculation of Emissions (limit to 600 charac	cters):		•	**	s
Dec	ovided in Air Construction Permit Application A		hmant ED	I EMI: Soc	tion 2	O: Annon	div A
PIC	ovided in Air Construction Fermit Application A	MILAC	ument ek	L-FIVII, Sec	11011-2	v, Append	
A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
9.	Pollutant Potential/Fugitive Emissions Comr	nent	(limit to	200 charac	ters):	<u> </u>	
	Lb/hr based on oil firing, all loads. Tons/yr ba hrs/yr oil firing and 500 hours HPM; ISO cond			nrs/yr gas f	iring	baseload,	500
<u>Al</u>	lowable Emissions Allowable Emissions 2	2	of 3	_			
1.	Basis for Allowable Emissions Code: OTHER	2.	Future E Emission	ffective Da	ate o	f Allowabl	le
3.	Requested Allowable Emissions and Units:	4.	Equivale	nt Allowa	ble Ei	missions:	
	10% opacity		10	lb/hour		43.8 tons/	year
5.	Method of Compliance (limit to 60 character	s):					
	VE Test < 10% opacity, EPA Method 9						
6.	Allowable Emissions Comment (Desc. of Or	erat	ing Metho	od) (limit t	o 200	character	s):
				, \			.
1	s firing; all loads; 8,760 hrs/yr. Provided in Air L-FMI; Section 2.0; Appendix A.	Con	struction l	Permit App	olicatio	on Attachn	nent

Emissions Unit Information Section	1	_ of _	2	Combustion Turbines 3A & 3B
Pollutant Detail Information Page	6	of	6	Particu late Matter - PM10

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Effic	iency of Control:
PM ₁₀		•
		4. Synthetically
3. Potential Emissions: 17 lb/hour	45.6 tons/year	Limited? [X]
5. Range of Estimated Fugitive Emissions:	<u> </u>	
[] 1 [] 2 [] 3	tot	ons/year
6. Emission Factor:	• •	7. Emissions
Reference: GE, 2000; Golder		Method Code:
8. Calculation of Emissions (limit to 600 chara	acters):	
Provided in Air Construction Permit Application	Attachment EPI -EMI: Se	ction 20: Appendix A
Provided in All Construction 1 strint Application		
<u> </u>		
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 chara	acters):
I h/hr based on oil firing all loads Tons/vr h	ased on 7 760 hrs/yr gas	firing baseload 500
Lb/hr based on oil firing, all loads. Tons/yr b hrs/yr oil firing and 500 hours HPM; ISO con	ased on 7,760 hrs/yr gas ditions.	firing baseload, 500
Lb/hr based on oil firing, all loads. Tons/yr b hrs/yr oil firing and 500 hours HPM; ISO con	ased on 7,760 hrs/yr gas ditions.	firing baseload, 500
hrs/yr oil firing and 500 hours HPM; ISO con-	ased on 7,760 hrs/yr gas ditions.	firing baseload, 500
hrs/yr oil firing and 500 hours HPM; ISO con-	ditions.	
hrs/yr oil firing and 500 hours HPM; ISO cond Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: OTHER	3 of 3 2. Future Effective I Emissions:	Date of Allowable
hrs/yr oil firing and 500 hours HPM; ISO cond Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code:	3 of 3 2. Future Effective I	Date of Allowable
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and Units: 10% opacity	of 3 2. Future Effective I Emissions: 4. Equivalent Allow 10 lb/hour	Date of Allowable
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and Units:	of 3 2. Future Effective I Emissions: 4. Equivalent Allow 10 lb/hour	Date of Allowable able Emissions:
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and Units: 10% opacity 5. Method of Compliance (limit to 60 characters)	of 3 2. Future Effective I Emissions: 4. Equivalent Allow 10 lb/hour	Date of Allowable able Emissions:
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and Units: 10% opacity 5. Method of Compliance (limit to 60 character VE Test < 10% opacity, EPA Method 9	of 3 2. Future Effective I Emissions: 4. Equivalent Allow 10 lb/hour rs):	Date of Allowable able Emissions: 2.5 tons/year
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and Units: 10% opacity 5. Method of Compliance (limit to 60 characters)	of 3 2. Future Effective I Emissions: 4. Equivalent Allow 10 lb/hour rs):	Date of Allowable able Emissions: 2.5 tons/year
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and Units: 10% opacity 5. Method of Compliance (limit to 60 character VE Test < 10% opacity, EPA Method 9 6. Allowable Emissions Comment (Desc. of O	of 3 2. Future Effective I Emissions: 4. Equivalent Allow 10 lb/hour rs):	Date of Allowable able Emissions: 2.5 tons/year to 200 characters):
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code: OTHER 3. Requested Allowable Emissions and Units: 10% opacity 5. Method of Compliance (limit to 60 character VE Test < 10% opacity, EPA Method 9	of 3 2. Future Effective I Emissions: 4. Equivalent Allow 10 lb/hour rs):	Date of Allowable able Emissions: 2.5 tons/year to 200 characters):

Er	nissions Unit Information Section	1	of _	2	Co	mbustic	on Tu	urbines 3A & 3B
Po	llutant Detail Information Page	6	of _	6		Partic	culat	e Matter - PM10
	H. VISIBLE (Only Regulated Emis						ation	u
<u>Vi</u>	sible Emissions Limitation: Visible	Emis	sions	Limita	tion 1	of	2	_
1.	Visible Emissions Subtype: VE10		2.		for Allow Rule	able Op	acit	
3.	Requested Allowable Opacity: Normal Conditions: 10 Maximum Period of Excess Opacity		_	tional (Conditions	:		% min/hour
4.	Method of Compliance:			<u>. </u>		:		
	Annual VE Test EPA Method 9							
5.	Visible Emissions Comment (limit	to 200	chara	cters):				
	Maximum for gas and oil firing.		÷					
- :				,		Walland (1)	, j-	The second secon
	I. CONTINUO (Only Regulated Emission						nito	ring)
C	ontinuous Monitoring System: Con						mito	i ing)
1		itiliuot						
1.	Parameter Code: EM		۷.	Foliu	tant(s): N			•
3.	CMS Requirement:		[>	(] Rul	e	[]	Otl	her
4.	Monitor Information: Not yet deter Manufacturer: Model Number:	mined		S	orial Numb) Or:		
5.	Installation Date:		6.		erial Numb		tion '	Test Date:
٥.	01 Jan 2003		3.	1 0110	imance of	ociiica	1011	rest Date.

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7. Continuous Monitor Comment (limit to 200 characters):

NO_X CEM proposed to meet requirements of 40 CFR Part 75.

En	nissions Unit Information Section1	_ of _	2	Combus	stion Turbines 3A & 3E
Po	llutant Detail Information Page 6	_ of _	6	Pa	rticulate Matter - PM10
	H. VISIBLE EMIS	SSIO	NS INFO	RMATION	
	(Only Regulated Emissions	Units	Subject	to a VE Lim	itation)
Vis	sible Emissions Limitation: Visible Emi	ssions	Limitatio	on <u>2</u> of	2
1.	Visible Emissions Subtype: VE99	2.	Basis fo	or Allowable ule	Opacity: [] Other
3.	Requested Allowable Opacity: Normal Conditions: Maximum Period of Excess Opacity Allo	_	tional Co	nditions:	100 % 6 min/hour
4.	Method of Compliance:			<u> </u>	
5.	Visible Emissions Comment (limit to 200 FDEP Rule 62-201.700(1), Allowed for 2 ho shutdown and malfunction.			es) per 24 hou	rs for start up,
5.	FDEP Rule 62-201.700(1), Allowed for 2 ho shutdown and malfunction.			es) per 24 hou	rs for start up,
5.	FDEP Rule 62-201.700(1), Allowed for 2 ho shutdown and malfunction.	ours (1	20 minute		
5.	FDEP Rule 62-201.700(1), Allowed for 2 ho shutdown and malfunction. I. CONTINUOUS M.	ours (1	20 minute	ORMATIO	N
	FDEP Rule 62-201.700(1), Allowed for 2 ho shutdown and malfunction. I. CONTINUOUS M. (Only Regulated Emissions Un	ours (1 IONIT its Su	20 minute ΓΟR INI bject to (ORMATIO	N
	FDEP Rule 62-201.700(1), Allowed for 2 ho shutdown and malfunction. I. CONTINUOUS M (Only Regulated Emissions Un	IONITits Sulus Mo	20 minute FOR INF bject to θ onitor	ORMATIO Continuous I 2 of 2	N
<u>Co</u>	FDEP Rule 62-201.700(1), Allowed for 2 ho shutdown and malfunction. I. CONTINUOUS M. (Only Regulated Emissions Unntinuous Monitoring System: Continuo Parameter Code: EM	IONITits Suus Mo	FOR INE	ORMATIO	N Monitoring)
	FDEP Rule 62-201.700(1), Allowed for 2 ho shutdown and malfunction. I. CONTINUOUS M (Only Regulated Emissions Un	IONITits Suus Mo	20 minute FOR INF bject to θ onitor	ORMATIO Continuous I 2 of 2	N
<u>Co</u>	I. CONTINUOUS M. (Only Regulated Emissions Unitinuous Monitoring System: Continuo Parameter Code: EM CMS Requirement: Monitor Information: Not yet determine Manufacturer:	IONITits Suus Mo	FOR INE	ORMATIO Continuous I 2 of 2	N Monitoring)
<u>Co</u> 1. 3. 4.	I. CONTINUOUS M (Only Regulated Emissions Un ntinuous Monitoring System: Continuo Parameter Code: EM CMS Requirement: Monitor Information: Not yet determine Manufacturer: Model Number:	IONITits Suus Mo	FOR INI bject to Conitor Polluta C] Rule	CORMATIO Continuous M 2 of 2 nt(s): NO _X [al Number:	N Monitoring) —
<u>Co</u> 1. 3.	I. CONTINUOUS M. (Only Regulated Emissions Unitinuous Monitoring System: Continuo Parameter Code: EM CMS Requirement: Monitor Information: Not yet determine Manufacturer:	IONITits Suus Mo	FOR INI bject to Conitor Polluta C] Rule	CORMATIO Continuous M 2 of 2 nt(s): NO _X [al Number:	N Monitoring)

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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 Emission	ns 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).					
[x	X] 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 addressed in this Emissions Unit Information Section is a regulated emissions unit.					
[x] The emissions in emissions unit.	unit addressed in this Em	issions Unit Information Sec	ction is an unregulated		
3.	Description of Er	nissions Unit Addressed	in This Section (limit to 60 o	characters):		
	Natural Gas Heaters					
4.	Emissions Unit Io ID:	dentification Number:		[] No ID [X] ID Unknown		
5.	Emissions Unit Status Code: C	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit?		
9.	Emissions Unit C	Comment: (Limit to 500 C	Characters)			
	P. Emissions Unit Comment: (Limit to 500 Characters) This emission unit is Natural Gas Heaters for each of the GE Frame 7FA combustion turbine operating in simple cycle mode. See Attachment FPL-FMI provided with the Air Construction Permit Application.					

Emissions Unit Control Equipment

 Control Equipment/Method Description (Limit to 200 characters per device or met Dry Low NO_x combustion - Natural gas firing 	thod):
	. :

Emissions Unit Details

2. Control Device or Method Code(s): 25

1.	Package Unit:			
	Manufacturer: Gas Tech or Equivalent	Model Number:		
2.	Generator Nameplate Rating:	MW		
3.	Incinerator Information:			
	Dwell Temperature:		°F	
	Dwell Time:	•	seconds	
	Incinerator Afterburner Temperature:		. °F	

Natural	Gas	Heaters	3A	&	3 B
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Emissions Unit Information Section	2	of	2
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B. EMISSIONS UNIT CAPACITY INFORMATION (Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		23.71	mmBtu/hr Each
2. Maximum Incineration Rate	: lb/hr		tons/day
3. Maximum Process or Throu	ghput Rate:		••
4. Maximum Production Rate:			
5. Requested Maximum Opera	ting Schedule:		
	hours/day		days/week
·	weeks/year	8,760	hours/year
6. Operating Capacity/Schedul Maximum heat input per unit	t when natural gas firing (HH\		

C. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

List of Applicable Regulations

See Attachment FPL-FMI provided with the Air Construction Permit Application for permitting requirements	
:-	
· · · · · · · · · · · · · · · · · · ·	

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

Emission Point Description and Type

1.	Identification of Point on Pl Flow Diagram? See Att. F		2. Emission Po	oint Type Code:	
3.	Descriptions of Emission Po 100 characters per point):	oints Comprising	g this Emissions \	Unit for VE Trac	king (limit to
	Exhausts through a single s	tack.			
4.	ID Numbers or Descriptions	of Emission Ur	nits with this Emi	ssion Point in Co	ommon:
			•		
	en de la companya de				The state of the s
5.	Discharge Type Code: V	6. Stack Heig	ht: 30 feet	7. Exit Diame	ter: 1.5feet
8.	Exit Temperature: 713 °F	9. Actual Vol Rate:	umetric Flow 11,736 acfm	10. Water Vapo	or: %
11.	. Maximum Dry Standard Flo	ow Rate: dscfm	, '	mission Point He	feet
13.	. Emission Point UTM Coord	linates:			
	Zone: 17 E	ast (km): 543.1	Nort	h (km): 2992.9	
14.	. Emission Point Comment (1	imit to 200 char	acters):		
	Each Heater will have one st	ack.	·		
		•			
	e e e e e e e e e e e e e e e e e e e	:			
1			•		·

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

<u>Se</u>	gment Description and Ra	te: Segment 1	of_1		
1.	Segment Description (Prod	cess/Fuel Type) (limit to 500 ch	naracters):	
	Natural Gas < 100 MMBtu/h	nr			
		d.			
2.	Source Classification Code 10100602	e (SCC):	3. SCC Units		
4.	Maximum Hourly Rate: 0.023	5. Maximum A 406.7	Annual Rate:	6. Estimated Annual A Factor:	Activity
7.	Maximum % Sulfur: 0.05	8. Maximum %	% Ash:	9. Million Btu per SC 1020	C Unit:
10	. Segment Comment (limit t	to 200 characters)):		
<u>Se</u>	Maximum hourly based on 8,760 hrs/yr operation for 2	heaters	of		
1.	Segment Description (Prod	cess/Fuel Type)	(limit to 500 c	haracters):	
		· .			
		- •			
2.	Source Classification Code	e (SCC):	3. SCC Uni	ts:	
4.	Maximum Hourly Rate:	5. Maximum A	Annual Rate:	6. Estimated Annual A Factor:	ctivity
7.	Maximum % Sulfur:	8. Maximum %	% Ash:	9. Million Btu per SCO	C Unit:
10	. Segment Comment (limit	to 200 characters			
			••		
	. ·				

F. EMISSIONS UNIT POLLUTANTS (All Emissions Units)

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	4. Pollutant Regulatory Code
NO _X	026		EL
со			EL
		-	
		-	
		_	
			· ·
			·

Emissions Unit Information Section	2	of _	2	Natural Gas Heater
Pollutant Detail Information Page	1	of	2	Nitrogen Oxide

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

Potential/Fugitive Emissions

1. Pollutant Emitted:	1			
	2. Total Percent Efficiency of Control:			
NO _x				
3. Potential Emissions:		4. Synthetically		
2.36 lb/hour	20.7 tons/year	Limited? [X]		
5. Range of Estimated Fugitive Emissions:				
[] 1 [] 2 [] 3	to to	ns/year		
6. Emission Factor:	· .	7. Emissions		
Reference: GasTech, 2000; Golder		Method Code: 2		
8. Calculation of Emissions (limit to 600 chara	acters):			
Provided in Air Construction Permit Application	Attachment FPL-FMI; Sec	tion 2.0; Appendix A.		
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 charac	eters):		
I h/hr hazad an ana haatar. Tang/ur hagad a	n 9 760 broker for 2 bootor			
Lb/hr based on one heater. Tons/yr based o	ii o,700 firs/yr for 2 fleatei	5.		
,				
Allowable Emissions Allowable Emissions	of			
Basis for Allowable Emissions Code: OTHER	2. Future Effective D Emissions:	ate of Allowable		
3111211		•		
3. Requested Allowable Emissions and Units:		ble Emissions:		
		ble Emissions: 20.7 tons/year		
3. Requested Allowable Emissions and Units:	4. Equivalent Allowa 2.36 b/hour	· ·		
3. Requested Allowable Emissions and Units: 0.1 lb/MMBtu	4. Equivalent Allowa 2.36 b/hour	· ·		
3. Requested Allowable Emissions and Units: 0.1 lb/MMBtu	4. Equivalent Allowa 2.36 b/hour	· ·		
Requested Allowable Emissions and Units: 0.1 lb/MMBtu Method of Compliance (limit to 60 characters)	4. Equivalent Allowa 2.36 b/hour ers):	20.7 tons/year		
3. Requested Allowable Emissions and Units: 0.1 lb/MMBtu	4. Equivalent Allowa 2.36 b/hour ers):	20.7 tons/year		
Requested Allowable Emissions and Units: 0.1 lb/MMBtu Method of Compliance (limit to 60 characters)	4. Equivalent Allowa 2.36 b/hour ers): Operating Method) (limit to	20.7 tons/year to 200 characters):		
Requested Allowable Emissions and Units: 0.1 lb/MMBtu Method of Compliance (limit to 60 characters) Allowable Emissions Comment (Desc. of Compliance)	4. Equivalent Allowa 2.36 b/hour ers): Operating Method) (limit to	20.7 tons/year to 200 characters):		

Emissions Unit Information Section	 2	of	2	 Natural Gas Heater
Pollutant Detail Information Page	 2	of	2	 Carbon Monoxid

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

Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:				
co					
3. Potential Emissions:		4. Synthetically			
1.79 lb/hour	15.5 tons/year	Limited? [X]			
5. Range of Estimated Fugitive Emissions:	•				
	toto	ns/year			
6. Emission Factor:		7. Emissions			
Reference: GasTech, 2000; Golder		Method Code: 2			
8. Calculation of Emissions (limit to 600 chara	cters):				
Provided in Air Construction Permit Application	Attachment FPL-FMI; Sec	tion 2.0; Appendix A.			
		distribution for the			
	현학을 속되려고 그렇다는 회원 역하는 사람들이 한 경	on off on the state of the stat			
O. Dallutant Datantial/Engitive Engineers Com-		-t\.			
9. Pollutant Potential/Fugitive Emissions Com	ment (limit to 200 charac	ciers):			
Lb/hr based on one heater. Tons/yr based o	n 8,760 and 2 heaters.				
·	•				
Allowable Emissions Allowable Emissions	1 of 1				
Basis for Allowable Emissions Code:	2. Future Effective D	ate of Allowable			
OTHER	Emissions:				
3. Requested Allowable Emissions and Units:	4. Equivalent Allowa	ble Emissions:			
0.075 lb/MMBtu	lb/hour	tons/year			
5. Method of Compliance (limit to 60 characte	rs):				
		•			
6. Allowable Emissions Comment (Desc. of O	perating Method) (limit t	o 200 characters):			
Provided in Air Construction Permit Application	Attachment FPL-FMI; Sec	ction 2.0; Appendix A.			

Emissions Unit Information Section	2	of	2	Natural Gas Heaters
Pollutant Detail Information Page	2	of	2	Carbon Monoxide

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

Visible Emissions Limitation: Visib	ole Emissions Limitation1 of2
Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: [] Rule [X] Other
3. Requested Allowable Opacity: Normal Conditions: Maximum Period of Excess Opac	10 % Exceptional Conditions: %
4. Method of Compliance:	· · · · · · · · · · · · · · · · · · ·
Annual VE Test EPA Method 9	
5. Visible Emissions Comment (lim	it to 200 characters):
Maximum for gas firing. Rule 62-2	96.320 allows 20% opacity
	OUS MONITOR INFORMATION ons Units Subject to Continuous Monitoring) ontinuous Monitor of
1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[] Rule [] Other
Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (li	mit to 200 characters):

Emissions Unit Information Section 2	of 2 Natural Gas Heaters
Pollutant Detail Information Page 2	of 2 Carbon Monoxide
(Only Regulated Emissions U	SIONS INFORMATION Inits Subject to a VE Limitation)
Visible Emissions Limitation: Visible Emissions	ions Limitation 2 of 2
1. Visible Emissions Subtype: VE99	2. Basis for Allowable Opacity: [X] Rule [] Other
3. Requested Allowable Opacity: Normal Conditions: % Ex Maximum Period of Excess Opacity Allow	xceptional Conditions: 100 % ed: 6 min/hour
4. Method of Compliance:	
None	
5. Visible Emissions Comment (limit to 200 of FDEP Rule 62-201.700(1), Allowed for 2 hour shutdown and malfunction.	
	ONITOR INFORMATION s Subject to Continuous Monitoring)
Continuous Monitoring System: Continuous	Monitorof
1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[X] Rule [] Other
4. Monitor Information:	

Serial Number:

6. Performance Specification Test Date:

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7. Continuous Monitor Comment (limit to 200 characters):

Manufacturer: Model Number:

5. Installation Date:

9937613Y/F1/TV 8/11/03 Facility Detail Report for AIRS ID: 0710002 Printed On: Friday, July 09, 2004 14:13

Owner/Company Name: FLORIDA POWER & LIGHT (PFM)

Site Name: FORT MYERS POWER PLANT

Address: 10650 SR 80

FORT MYERS 33905

Directions: FT MYERS POWER PLANT 10650 STATE ROAD 80

Status: A

Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Relocatable:

Type: 1 -- STEAM ELECTRIC PLANT

Government Facility: 0 -- NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT

Ozone SIP Facility: N AOR Required: Y

Facility Comment: GAS TURBINES AND OIL FIRED STEAM ELECTRIC GENERATORS

Facility Location

Facility Latitude: Degrees: 26, Minutes: 41, Seconds: 49
Facility Longitude: Degrees: 81, Minutes: 46, Seconds: 55

Facility UTM: Zone: 17, East(km): 422.3, North(km): 2952.9

Regulatory Classification Section

Title V: Y

Synthetic Non-Title V Source:

Synthetic Minor Source of Non-HAPs:

Major Source of Non-HAPs: Y

Major Source of HAPs: Y

Synthetic Minor Source of HAPs:

Title V by EPA Designation:

NSPS: Y

NESHAP: N

Small Business Stationary Source:

Regulatory Classification Comment:

Facility SIC

Primary SIC Description

Y 4911 ELECTRIC SERVICES -- ELECTRIC SERVICES

Facility Building

Building ID Height (ft) Zone North (km) East (km)

Facility Site
Boundary
Zone North (km) East (km)

Regulation(s)

	_
<u>Type</u>	Regulation
S	62-4
S	62-210
S	62-213
S .	62-296
S	62-297

Facility Pollutants								
Pollutant	Classification	Basis	Regulation	Emission Cap (lb/hr)	Emission Cap (ton/yr)	Comments		

			•	1
СО	A	·		
H014	В			
H015	В			
H027	В			
H046	В			
H047	В			
H095	В			
H106	A			
H107	В			
H113	В			
H133	В			
H148	В			
H150	С			
H169	В			
HAPS	А			
NOX	А			
РВ	В			
PM	A			
PM10	A			
SAM	С		 poseve govern	٠,
SO2	А		5.37 # 7	·
TH	С	.:	. [+ 50 .]	1
VOC	A		1 100	

Active Facility Related Party Information

Facility Party Role: DESIGNATED REPRESENTATIVE (ACID RAIN)

Begin Date: 10/11/2002

End Date:

Company: FLORIDA POWER & LIGHT

Title: VP, OPERATIONS & TECHNICAL SERVICES

Name: ADALBERTO ALFONSO

Voice Mail: (561)691-9129 Fax Number: (561)691-2606

Mobile Number:

Email Address: adalberto_alfonso@fpl.com

Address1: 700 UNIVERSE BLVD. Address2: P.O. BOX 14000

City/State/Country: JUNO BEACH FL U.S.A.

ZIP5/ZIP4: 33408 - 420 Address Type: BUSINESS

Mailing Address: Y

Facility Party Role: DESIGNATED REPRESENTATIVE (ACID RAIN)

Begin Date: 10/07/2002

End Date:

Company: FLORIDA POWER & LIGHT COMPANY

Title: GENERAL MANAGER - QWEST

Name: NANCY KIERSPE Voice Mail: (561)691-9129

Fax Number: Mobile Number:

Email Address: nancy_kierspe@fpl.com

Address1: 700 UNIVERSE BLVD., GPA-JB

Address2: P.O. BOX 14000

City/State/Country: JUNO BEACH FL U.S.A.

ZIP5/ZIP4: 33408 - 420 Address Type: BUSINESS

Mailing Address: Y

Facility Party Role: FACILITY CONTACT

Begin Date: 05/03/2004

End Date:

Company: FORT MYERS POWER PLANT Title: PLANT GENERAL MANAGER

Name: BILL REICHEL Voice Mail: (561)693-9342

Fax Number: Mobile Number:

Email Address:

Address1: PO BOX 430

Address2:

City/State/Country: FORT MYERS FL

ZIP5/ZIP4: 33902 -Address Type: BUSINESS

Mailing Address: Y

Facility Party Role: OWNER/AUTHORIZED REPRESENTATIVE

Begin Date: 03/13/2003

End Date:

Company: FLORIDA POWER & LIGHT COMPANY

Title: GENERAL MANAGER - QWEST

Name: NANCY KIERSPE Voice Mail: (561)691-9129

Fax Number:

Mobile Number:

Email Address: nancy_kierspe@fpl.com

Address1: 700 UNIVERSE BOULEVARD, GPA-JB

Address2:

City/State/Country: JUNO BEACH FL U.S.A.

ZIP5/ZIP4: 33408 - 420 Address Type: BUSINESS

Mailing Address: Y

Facility Party Role: PRIMARY RESPONSIBLE OFFICIAL (TITLE V)

Begin Date: 06/14/2000

End Date:

Company: FORT MYERS POWER PLANT Title: PLANT GENERAL MANAGER

Name: BILL REICHEL Voice Mail: (941)693-9342 Fax Number: (941)693-4333

Mobile Number: Email Address:

Address1: P.O. BOX 430

Address2:

City/State/Country: FT. MYERS FL

Facility Detail Report

ZIP5/ZIP4: 33902 -Address Type: BUSINESS

Mailing Address: Y

Emission Unit Information

Emission Unit ID: 3

Status: A

Description: Combustion Turbine #1

Type: 11.02 -- Gas Turbines

EU Classification: R

Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 63

Model Number: MS7000B

Manufacturer: General Electric

Ozone SIP Base Year Unit: Y

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

Comment: rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F

condition.

Operating Capacity

Dwell Temp (F): Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment: 25 dos

Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

State 62-296.320(4)(b)1

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 3

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 3

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

Discharge Type: VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 32

Exit Diameter (ft): 11.4 Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17 UTM North (km): 2952 UTM East (km): 422.3

GEP Stack Height (ft): Non-Stack Height (ft): Comment:

Other EUs With This Point in Common

NO EUs IN COMMON

Segment(s) Information for EU 3

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation Description 3: Distillate Oil (Diesel)

Description 4: Turbine

Status: A

Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Gas turbine bank (1-12) burning distillate oil. Segment Description: mmBtu/SCC Unit: 136

Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit:

Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr /

Comment: 136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #:

SCC Code: 10101302

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Liquid Waste Description 4: Waste Oil

Status: Ι

> Unit: 1000 Gallons Waste Oil Burned

On-Specification used oil. Segment Description:

mmBtu/SCC Unit:

Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Segment #: 3

SCC Code: 20101302

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status: A

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On_Specification used oil.

mmBtu/SCC Unit: Max Hourly Rate:

Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Pollutant(s) Summary for EU 3

Pollutant: <u>CO</u> -- Carbon Monoxide

1 House 12:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS AA 3

Potential (lb/hr): 40.8 Potential (tpy): 179 Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: <u>H015</u> -- Arsenic Compounds (inorganic including arsine)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

```
Emission Factor Unit:
Emission Factor Ref:
Emission Calculation:
```

Comment: Limited to 5 ppm as specification of used oil.

Pollutant: <u>H027</u> -- Cadmium Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): Potential (tpy):

Emission Method: Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor: Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant: <u>H046</u> -- Chromium Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:
Emission Factor:
Emission Factor Unit:
Emission Factor Ref:

Emission Calculation:

Comment: Limited to 10 ppm as specification of used oil.

Pollutant: <u>H106</u> -- Hydrogen chloride (Hydrochloric acid)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor:

Emission Factor Unit: Emission Factor Ref:

Emission Calculation: Comment:

```
Pollutant:
                              H107 -- Hydrogen fluoride (Hydrofluoric acid)
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                  Pollutant:
                              H113 -- Manganese Compounds
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                              NS
           Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                              H133 -- Nickel Compounds
                  Pollutant:
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                              NS
           Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor, Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                  Pollutant:
                              H148 -- Phosphorus
           Primary Control:
        Secondary Control:
```

Control Efficiency:

NS Pollutant Regulatory Code: Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: H150 -- Polychlorinated biphenyls (Aroclors) **Primary Control:** Secondary Control: Control Efficiency: Pollutant Regulatory Code: EL Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Limited to 2 ppm as specification of used oil. **HAPS** -- Total Hazardous Air Pollutants Pollutant: Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: NOX -- Nitrogen Oxides Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): 530 Potential (tpy): 2321 **Emission Method:** Estimated Fugitive LL (tpy):

```
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
                              530
      Emission Factor Unit:
                              021 -- LB/HR
                              PERMIT
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                              PB -- Lead - Total (elemental lead and lead compounds)
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                              EL
           Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                Comment:
                              Limited to 100 ppm as specification of used oil.
                              PM -- Particulate Matter - Total
                 Pollutant:
           Primary Control:
    Secondary Control:
         Control Efficiency:
                              Pollutant Regulatory Code:
          Potential (lb/hr):
                              51.85
            Potential (tpy):
                              227
          Emission Method:
                              3
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
                              0.061
      Emission Factor Unit:
                              025 -- LB/MMBTU
                              AP-42
       Emission Factor Ref:
      Emission Calculation:
                Comment:
                  Pollutant:
                              PM10 -- Particulate Matter - PM10
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                              NS
           Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
```

Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref:** Emission Calculation:

Comment:

Pollutant: SAM -- Sulfuric Acid Mist

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: SO2 -- Sulfur Dioxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 400

Potential (tpy): 1750

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 71

Emission Factor Unit: 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: TH -- Total Halogens

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive LL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

Pollutant: <u>VOC</u> -- Volatile Organic Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor:

Emission Factor Unit: Emission Factor Ref:

Emission Calculation: Comment:

Allowable Emissions Information for EU 3

Pollutant: NOX

Sequence Number: 2 Allowable Emission: 530

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530 Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: EPA METHOD 7 OR 7E REFERENCE BY 62-201.800 & PROJECT 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1.OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment:

Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

each federal fiscal year

Visible Emissions Information for EU 3

VE Subtype: VE20

Number of VE Tests: 7

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

Regulation: 62-296.320(4)(b)1.

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 3

No Continuous Monitor information found for this EU

Emission Unit ID: 4

Status: A

Description: Combustion Turbine #2

Type: 11.02 -- Gas Turbines

EU Classification: R Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 63

Model Number: MS7000B

Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

Comment: rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F

condition.

Operating Capacity

Dwell Temp (F): Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr): Incin. Rate (ton/day):

Throughput: Throughput Unit: Production:

Production Unit:

Operating Capacity Comment: Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 4

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 4

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 32

Exit Diameter (ft): 11.4 Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17 UTM North (km): 2952 UTM East (km): 422.3

GEP Stack Height (ft): Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 4

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation
Description 3: Distillate Oil (Diesel)

Description 4: Turbine

Status: A

Unit: 1000 Gallons Distillate Oil (Diesel) Burned Segment Description: Gas turbine bank (1-12) burning distillate oil.

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit: Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr /

Comment: 136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #: 2

SCC Code: 10101302

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Liquid Waste Description 4: Waste Oil

Status: I

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:

Max Hourly Rate: Hourly Rate Limit:

nouny Rate Linit.

Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Segment #: 3

SCC Code: 20101302

Description 1: Internal Combustion Engines

Description 2: Electric Generation
Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status: A

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:
Max Hourly Rate:

Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S:
Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Pollutant(s) Summary for EU 4

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/br): 40.8

Potential (lb/hr): 40.8
Potential (tpy): 179

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: <u>H015</u> -- Arsenic Compounds (inorganic including arsine)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 5 ppm as specification of used oil.

```
Pollutant:
                               H027 -- Cadmium Compounds
            Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               Limited to 2 ppm as specification of used oil.
                  Pollutant:
                               H046 -- Chromium Compounds
           Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               Limited to 10 ppm as specification of used oil.
                               H106 -- Hydrogen chloride (Hydrochloric acid)
                  Pollutant:
           Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                  Pollutant:
                              H107 -- Hydrogen fluoride (Hydrofluoric acid)
           Primary Control:
        Secondary Control:
```

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: H113 -- Manganese Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: H133 -- Nickel Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: <u>H148</u> -- Phosphorus

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

```
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                             H150 -- Polychlorinated biphenyls (Aroclors)
                 Pollutant:
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                              EL
          Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                              Limited to 2 ppm as specification of used oil.
                 Pollutant:
                             HAPS -- Total Hazardous Air Pollutants
           Primary Control:
        Secondary Control:
                                 Control Efficiency:
Pollutant Regulatory Code:
                                  "这个一点,"手上到了沙林,陈林的
          Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                 Pollutant:
                             NOX -- Nitrogen Oxides
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                             NS
          Potential (lb/hr):
                             530
            Potential (tpy):
                             2321
          Emission Method:
                             0
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
                             530
      Emission Factor Unit:
                             021 -- LB/HR
```

Emission Factor Ref:

PERMIT

Emission Calculation:

Comment:

Pollutant: PB -- Lead - Total (elemental lead and lead compounds)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 100 ppm as specification of used oil.

Pollutant: PM -- Particulate Matter - Total

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 51.8 Potential (tpy): 227

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.061

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpv):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: SAM -- Sulfuric Acid Mist

Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code:

NS Potential (lb/hr):

Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment:

Pollutant: SO2 -- Sulfur Dioxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 400 Potential (tpy): 1750 **Emission Method:** 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Ν **Emission Factor:**

Emission Factor Unit: 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: TH -- Total Halogens

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

VOC -- Volatile Organic Compounds Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Allowable Emissions Information for EU 4

Pollutant: NOX

Sequence Number: 2 Allowable Emission: 530

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530 Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment:

Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

each federal fiscal year

Visible Emissions Information for EU 4

VE Subtype: VE20

Number of VE Tests: 6

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

Regulation: 62-296.320(4)(b)1.

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 4

No Continuous Monitor information found for this EU

Emission Unit ID: 5

Status: A

Description: Combustion Turbine #3

11.02 -- Gas Turbines Type:

EU Classification: R Acid Rain Unit: Ν

49 -- ELECTRIC, GAS AND SANITARY SERVICES EU Major Group SIC:

Generator Rating (MW):

MS7000B Model Number: Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F Comment:

condition.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

the state of the state of the state of

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit: Production:

Production Unit:

Each gas turbine is currently limited to 895 mmBtu heat input per hour at Operating Capacity Comment:

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 5

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #:

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A Discharge Type:

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft):

Exit Diameter (ft): 11.4 Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2952 422.3

UTM East (km):

GEP Stack Height (ft):

Non-Stack Height (ft): Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 5

Segment #:

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation Distillate Oil (Diesel) Description 3:

Description 4: Turbine

Status: Α

Unit: 1000 Gallons Distillate Oil (Diesel) Burned Segment Description: Gas turbine bank (1-12) burning distillate oil.

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit: Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit: Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation, CALCULATIONS:10200mmbtu/hr /

Comment:

136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #:

SCC Code: 20101302

Description 1: Internal Combustion Engines

Description 2: **Electric Generation**

Description 3: Liquid Waste

Waste Oil - Turbine Description 4:

Status:

1000 Gallons Waste Oil Burned Unit:

Segment Description: On-specification used oil.

mmBtu/SCC Unit: Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Pollutant(s) Summary for EU 5

CO -- Carbon Monoxide Pollutant:

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): 40.8 Potential (tpy): 179

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

H015 -- Arsenic Compounds (inorganic including arsine) Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 5 ppm as specification of used oil.

Pollutant:

H027 -- Cadmium Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant:

H046 -- Chromium Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

```
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               Limited to 10 ppm as specification of used oil.
                               H106 -- Hydrogen chloride (Hydrochloric acid)
                  Pollutant:
            Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                               <u>H107</u> -- Hydrogen fluoride (Hydrofluoric acid)
            Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                               H113 -- Manganese Compounds
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
```

```
Emission Factor Ref:
Emission Calculation:
Comment:
```

Pollutant: <u>H133</u> -- Nickel Compounds

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method: Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: <u>H148</u> -- Phosphorus

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: H150 -- Polychlorinated biphenyls (Aroclors)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

HAPS -- Total Hazardous Air Pollutants Pollutant: Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: NOX -- Nitrogen Oxides **Primary Control:** Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): 530 Potential (tpy): 2321 **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor:** 530 **Emission Factor Unit:** 021 -- LB/HR **Emission Factor Ref:** PERMIT **Emission Calculation:** Comment: Pollutant: PB -- Lead - Total (elemental lead and lead compounds) **Primary Control:** Secondary Control: Control Efficiency: Pollutant Regulatory Code: EL Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Limited to 100 ppm as specification of used oil. Pollutant: PM -- Particulate Matter - Total **Primary Control:** Secondary Control:

Control Efficiency:

NS

Pollutant Regulatory Code:

Potential (lb/hr): 51.8 Potential (tpy): 227 Emission Method: 3 Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor:** 0.061 **Emission Factor Unit:** 025 -- LB/MMBTU **Emission Factor Ref:** AP-42 **Emission Calculation:** Comment: Pollutant: PM10 -- Particulate Matter - PM10 Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: 1. 文字中,文字中, 类似性 SAM -- Sulfuric Acid Mist Pollutant: Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor:**

Emission Factor Unit: Emission Factor Ref:

> **Emission Calculation:** Comment:

> > Pollutant: SO2 -- Sulfur Dioxide

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 400 Potential (tpy): 1750 **Emission Method:**

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor: 71

Emission Factor Unit: 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: TH -- Total Halogens

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

Pollutant: <u>VOC</u> -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Allowable Emissions Information for EU 5

Pollutant: NOX

Sequence Number: 2

Allowable Emission: 530

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530 Equivalent (tpy): 2321

Equivalent (tpy): Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment: Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

each federal fiscal year

Visible Emissions Information for EU 5

VE Subtype: VE20

Number of VE Tests: 2

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

Regulation: 62-296.320(4)(b)1.

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 5

No Continuous Monitor information found for this EU

Emission Unit ID: 6

Status: A

Description: Combustion Turbine #4

Type: 11.02 -- Gas Turbines

EU Classification: R

Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 63

Model Number: MS7000B

Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

Comment: rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F

condition.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment: Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 6

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 6

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 32

Exit Diameter (ft): 11.4 Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17 UTM North (km): 2952

UTM East (km): 422.3

0114 East (Kill). 422

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 6

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation
Description 3: Distillate Oil (Diesel)

Description 4: Turbine

Status: A

Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Segment Description: Gas turbine bank (1-12) burning distillate oil.

mmBtu/SCC Unit: 136
Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit: Max Percent Ash: Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr / Comment:

136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

2 Segment #:

SCC Code: 10101302

Description 1: External Combustion Boilers

Description 2: **Electric Generation**

Description 3: Liquid Waste Description 4: Waste Oil

Status:

Unit: 1000 Gallons Waste Oil Burned

On-Specification used oil. Segment Description:

mmBtu/SCC Unit: Max Hourly Rate: Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Segment #: 3

SCC Code: 20101302

> Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status:

Unit: 1000 Gallons Waste Oil Burned

On-Specification used oil. Segment Description:

mmBtu/SCC Unit:

Max Hourly Rate:

Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit:

1500

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Pollutant(s) Summary for EU 6

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 40.8 Potential (tpy): 179

Emission Method: 3

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

H015 -- Arsenic Compounds (inorganic including arsine) Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method: Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment: Limited to 5 ppm as specification of used oil.

H027 -- Cadmium Compounds Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant: H046 -- Chromium Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: Emission Calculation:

> Comment: Limited to 10 ppm as specification of used oil.

Pollutant:

H106 -- Hydrogen chloride (Hydrochloric acid)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

H107 -- Hydrogen fluoride (Hydrofluoric acid) Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant:

H113 -- Manganese Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: Emission Calculation:

Comment:

Pollutant: H133 -- Nickel Compounds **Primary Control:** Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment:

> H148 -- Phosphorus Pollutant:

Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor:**

Emission Factor Unit: Emission Factor Ref: Emission Calculation: Comment:

H150 -- Polychlorinated biphenyls (Aroclors) Pollutant:

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

> **Emission Factor: Emission Factor Unit: Emission Factor Ref:**

Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant: HAPS -- Total Hazardous Air Pollutants

NS

Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code:

```
Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               NOX -- Nitrogen Oxides
                  Pollutant:
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
                               530
             Potential (tpy):
                               2321
          Emission Method:
                               0
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
                               530
       Emission Factor Unit:
                               021 -- LB/HR
       Emission Factor Ref:
                               PERMIT
      Emission Calculation:
                 Comment:
                               PB -- Lead - Total (elemental lead and lead compounds)
                  Pollutant:
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                               Limited to 100 ppm as specification of used oil.
                 Comment:
                               PM -- Particulate Matter - Total
                  Pollutant:
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
                               51.8
             Potential (tpy):
                               227
          Emission Method:
                               3
Estimated Fugitive LL (tpy):
```

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.061

Emission Factor Unit: 025 -- LB/MMBTU AP-42

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

SAM -- Sulfuric Acid Mist Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: SO2 -- Sulfur Dioxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): 400

Potential (tpy): 1750

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 71 **Emission Factor Unit:** 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: TH -- Total Halogens

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

Pollutant:

VOC -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Éfficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

mission calculation.

Comment:

Allowable Emissions Information for EU 6

Pollutant: NOX

Sequence Number: 2

Allowable Emission: 530

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530

Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment: Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

each federal fiscal year

Visible Emissions Information for EU 6

VE Subtype: VE20 Number of VE Tests: 3

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

62-296.320(4)(b)1. Regulation:

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 6

No Continuous Monitor information found for this EU

Emission Unit ID:

Status: A

Description: Combustion Turbine #5

Type: 11.02 -- Gas Turbines

EU Classification: Acid Rain Unit:

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

MS7000B Model Number:

Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

Comment: rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F

condition.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 7

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 7

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 32

Exit Diameter (ft): 11.4 Exit Temperature (°F): 975 Exit Velocity (ft/s): 189.4

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2952 UTM East (km): 422.3

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUs IN COMMON

Segment(s) Information for EU 7

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation
Description 3: Distillate Oil (Diesel)

Description 4: Turbine

Status: A

Unit: 1000 Gallons Distillate Oil (Diesel) Burned Segment Description: Gas turbine bank (1-12) burning distillate oil.

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit:

Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr /

Comment: 136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #: 2

SCC Code: 10101302

Description 1: **External Combustion Boilers**

Description 2: Electric Generation Description 3: Liquid Waste Description 4: Waste Oil

Status:

1000 Gallons Waste Oil Burned Unit:

Segment Description: On-Specification used oil.

mmBtu/SCC Unit: Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Segment #: 3

SCC Code: 20101302

Description 1: **Internal Combustion Engines**

Description 2: **Electric Generation**

Liquid Waste Description 3:

Description 4: Waste Oil - Turbine

Status:

1000 Gallons Waste Oil Burned Unit:

Segment Description: On-Specification used oil.

mmBtu/SCC Unit: Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Pollutant(s) Summary for EU 7

CO -- Carbon Monoxide Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): 40.8 Potential (tpy): 179 **Emission Method:** 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

Emission Factor Unit: 025 -- LB/MMBTU Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: H015 -- Arsenic Compounds (inorganic including arsine)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 5 ppm as specification of used oil.

Pollutant: <u>H027</u> -- Cadmium Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated rugitive LL (tpy).

Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor:

Emission Factor Unit:

Fariation Factor Office

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant: <u>H046</u> -- Chromium Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 10 ppm as specification of used oil.

```
Pollutant:
                              H106 -- Hydrogen chloride (Hydrochloric acid)
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                               H107 -- Hydrogen fluoride (Hydrofluoric acid)
                  Pollutant:
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                              H113 -- Manganese Compounds
                  Pollutant:
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                              NS
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                              H133 -- Nickel Compounds
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                              NS
```

```
Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                  Pollutant:
                               H148 -- Phosphorus
           Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                              NS
           Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
              Comment:
                  Pollutant:
                              H150 -- Polychlorinated biphenyls (Aroclors)
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                              EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                              Limited to 2 ppm as specification of used oil.
                  Pollutant:
                              HAPS -- Total Hazardous Air Pollutants
           Primary Control:
```

Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

```
Synthetic Limited:
    Emission Factor:
Emission Factor Unit:
Emission Factor Ref:
Emission Calculation:
    Comment:
```

Pollutant: NOX -- Nitrogen Oxides

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS
Potential (lb/hr): 530
Potential (tpy): 2321

Emission Method: 0

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 530

Emission Factor Unit: 021 -- LB/HR Emission Factor Ref: PERMIT

Emission Calculation:

Comment:

Pollutant: PB -- Lead - Total (elemental lead and lead compounds)

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 100 ppm as specification of used oil.

Pollutant: PM -- Particulate Matter - Total

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 51.8 Potential (tpy): 227 Emission Method: 3

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.061

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

PM10 -- Particulate Matter - PM10 Pollutant: **Primary Control:** Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: SAM -- Sulfuric Acid Mist Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: SO2 -- Sulfur Dioxide Pollutant: Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): 400 Potential (tpy): 1750 Emission Method: 3 Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: Ν **Emission Factor:** 71 **Emission Factor Unit:** 011 -- LB/1000 GAL **Emission Factor Ref:** AP-42 **Emission Calculation:** Comment:

> Pollutant: TH -- Total Halogens **Primary Control:**

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy): Emission Method:

f Eugitive II (try):

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

Pollutant: VOC -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Allowable Emissions Information for EU 7

Pollutant: NOX

Sequence Number:

Allowable Emission: 530

11331011. 330

2

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530

Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method:

EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency:

11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date:

9/30/2002

Allowable Emission Comment:

Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

each federal fiscal year

Visible Emissions Information for EU 7

VE Subtype: VE20

Number of VE Tests: 1

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

Regulation: 62-296.320(4)(b)1.

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 7

No Continuous Monitor information found for this EU

Emission Unit ID: 8

Status: A

Description: Combustion Turbine #6

Type: 11.02 -- Gas Turbines

EU Classification: R

Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 63

Model Number: MS7000B

Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

Comment: rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F

condition.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment: Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 8

1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT Type:

Stack #:

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A Discharge Type:

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 32

Exit Diameter (ft): 11.4 Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2952

UTM East (km): 422.3 GEP Stack Height (ft):

Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 8

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation Description 3: Distillate Oil (Diesel)

Description 4: Turbine

> Status: Α

> > Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Gas turbine bank (1-12) burning distillate oil. Segment Description:

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit:

Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr /

Comment: 136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #: 2

SCC Code: 10101302

Description 1: **External Combustion Boilers**

Description 2: Electric Generation

Description 3: Liquid Waste Description 4: Waste Oil

> Status: Ι

> > Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:

Max Hourly Rate:

Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit:

1500 Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Segment #: 3

SCC Code: 20101302

Description 1: **Internal Combustion Engines**

Description 2: Electric Generation

Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status:

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:

Max Hourly Rate:

Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Pollutant(s) Summary for EU 8

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): 40.8

Potential (tpy): 179

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

```
H015 -- Arsenic Compounds (inorganic including arsine)
                  Pollutant:
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                               Limited to 5 ppm as specification of used oil.
                 Comment:
                  Pollutant:
                              H027 -- Cadmium Compounds
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                              EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                               Limited to 2 ppm as specification of used oil.
                  Pollutant:
                              H046 -- Chromium Compounds
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                               Limited to 10 ppm as specification of used oil.
                 Comment:
                               H106 -- Hydrogen chloride (Hydrochloric acid)
                  Pollutant:
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
```

```
Potential (lb/hr):
Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
Synthetic Limited:
Emission Factor:
Emission Factor Unit:
Emission Factor Ref:
Emission Calculation:
Comment:
```

Pollutant: <u>H107</u> -- Hydrogen fluoride (Hydrofluoric acid)

Primary Control:
Secondary Control:
Control Efficiency:
Pollutant Regulatory Code:
Potential (lb/hr):
Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
Synthetic Limited:

synthetic Limited:
Emission Factor:
Emission Factor Unit:
Emission Factor Ref:
Emission Calculation:
Comment:

Pollutant: <u>H113</u> -- Manganese Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS Potential (lb/hr):

Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation: Comment:

Pollutant: H133 -- Nickel Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):
Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment:

> Pollutant: H148 -- Phosphorus

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor:**

Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment:

Pollutant: H150 -- Polychlorinated biphenyls (Aroclors)

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr):

Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor:**

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant: HAPS -- Total Hazardous Air Pollutants

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Comment:

Pollutant: NOX -- Nitrogen Oxides Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): 530 Potential (tpy): 2321 Emission Method: 0 Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor:** 530 **Emission Factor Unit:** 021 -- LB/HR **Emission Factor Ref: PERMIT Emission Calculation:** Comment: Pollutant: PB -- Lead - Total (elemental lead and lead compounds) Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: EL Potential (lb/hr): Potential (tpy): Emission Method: Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Limited to 100 ppm as specification of used oil. Comment: PM -- Particulate Matter - Total Pollutant: Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): 51.8 Potential (tpy): 227 Emission Method: 3 Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor:** 0.061 **Emission Factor Unit:** 025 -- LB/MMBTU **Emission Factor Ref:** AP-42 **Emission Calculation:** Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control: Control Efficiency: Pollutant Regulatory Code: Potential (lb/hr):

> Potential (tpy): **Emission Method:**

NS

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor: Emission Factor Unit:**

Emission Factor Ref: Emission Calculation:

Comment:

Pollutant:

SAM -- Sulfuric Acid Mist

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): Potential (tpv): **Emission Method:**

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

> **Emission Factor: Emission Factor Unit: Emission Factor Ref:**

> **Emission Calculation:**

Comment:

Pollutant:

SO2 -- Sulfur Dioxide

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 400 1750 Potential (tpy):

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 71

Emission Factor Unit: 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant:

TH -- Total Halogens

Primary Control:

Secondary Control:

Control Efficiency: Pollutant Regulatory Code: EL

Potential (lb/hr):

Facility Detail Report

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor:**

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Limited to 1000 ppm as specification of used oil. Comment:

Pollutant:

VOC -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Allowable Emissions Information for EU 8

NOX Pollutant:

Sequence Number: 2

Allowable Emission: 530

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530

Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method:

EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code:

1 -- STACK TEST

Compliance Test Frequency:

11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date:

9/30/2002

Allowable Emission Comment:

Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

each federal fiscal year

Visible Emissions Information for EU 8

VE Subtype: VE₂₀

Number of VE Tests:

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: **RULE** Facility Detail Report

Page 57 of 179

Regulation: 62-296.320(4)(b)1.

COM Required:

Test Frequency:

0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 8

No Continuous Monitor information found for this EU

Emission Unit ID: 9

Status: A

Description: Combustion Turbine #7

Type: 11.02 -- Gas Turbines

EU Classification: R

Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 63

Model Number: MS7000B

Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

Comment: rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F

condition.

Operating Capacity

Dwell Temp (F): Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day): Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 9

1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #:

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A Discharge Type:

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft):

Exit Diameter (ft): 11.4

Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2952

UTM East (km): 422.3

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 9

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation Description 3: Distillate Oil (Diesel)

Description 4: Turbine

Status:

1000 Gallons Distillate Oil (Diesel) Burned Unit:

٠.

Segment Description: Gas turbine bank (1-12) burning distillate oil.

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit:

586920 Max Annual Rate:

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit:

Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr /

Comment:

136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #: 2

SCC Code: 10101302

Description 1: **External Combustion Boilers**

Description 2: **Electric Generation**

Description 3: Liquid Waste Description 4: Waste Oil

Status:

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:

Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Segment #: 3

SCC Code: 20101302

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status: A

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit: Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Pollutant(s) Summary for EU 9

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 40.8
Potential (tpy): 179

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: <u>H015</u> -- Arsenic Compounds (inorganic including arsine)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

```
Potential (lb/hr):
             Potential (tpy):
           Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
```

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment:

Limited to 5 ppm as specification of used oil.

Pollutant:

H027 -- Cadmium Compounds

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

> **Emission Factor: Emission Factor Unit:**

Emission Factor Ref:

Emission Calculation:

Limited to 2 ppm as specification of used oil. Comment:

Pollutant:

H046 -- Chromium Compounds.

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL.

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor:**

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 10 ppm as specification of used oil.

Pollutant:

H106 -- Hydrogen chloride (Hydrochloric acid)

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

```
Synthetic Limited:
Emission Factor:
Emission Factor Unit:
Emission Factor Ref:
Emission Calculation:
Comment:
```

Pollutant: <u>H107</u> -- Hydrogen fluoride (Hydrofluoric acid)

Primary Control:
Secondary Control:
Control Efficiency:
Pollutant Regulatory Code:
Potential (lb/hr):
Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation: Comment:

Pollutant: <u>H113</u> -- Manganese Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):
Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
Synthetic Limited:

Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation: Comment:

Pollutant: H133 -- Nickel Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):
Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation: Comment:

Pollutant: H148 -- Phosphorus

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

H150 -- Polychlorinated biphenyls (Aroclors) Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant:

HAPS -- Total Hazardous Air Pollutants

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: Emission Calculation:

Comment:

Primary Control:

Pollutant:

NOX -- Nitrogen Oxides

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 530 Potential (tpy): 2321

Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 530

Emission Factor Unit: 021 -- LB/HR

Emission Factor Ref: PERMIT

Emission Calculation:

Comment:

Pollutant: PB -- Lead - Total (elemental lead and lead compounds)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 100 ppm as specification of used oil.

Pollutant: PM -- Particulate Matter - Total

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 51.8

Potential (tpy): 227

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.061

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

```
Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                               SAM -- Sulfuric Acid Mist
           Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                               SO2 -- Sulfur Dioxide
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
                               400
             Potential (tpy):
                               1750
          Emission Method:
                               3
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
                               Ν
           Emission Factor:
                               71
       Emission Factor Unit:
                               011 -- LB/1000 GAL
       Emission Factor Ref:
                               AP-42
       Emission Calculation:
                 Comment:
                  Pollutant:
                               TH -- Total Halogens
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
```

Emission Factor:

Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

Pollutant: VOC -- Volatile Organic Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor: Emission Factor Unit: Emission Factor Ref:

Emission Calculation: Comment:

Allowable Emissions Information for EU 9

Pollutant: NOX

Sequence Number: 2 Allowable Emission: 530

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530 Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment:

Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

each federal fiscal year

Visible Emissions Information for EU 9

VE Subtype: VE20

Number of VE Tests: 3

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

Regulation: 62-296.320(4)(b)1.

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 9

No Continuous Monitor information found for this EU

Emission Unit ID: 10

Status: A

Description: Combustion Turbine #8

Type: 11.02 -- Gas Turbines

EU Classification: R Acid Rain Unit: N

ACIO RAIII UIIIL. N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 63

Model Number: MS7000B

Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

Comment: rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F

condition.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 10

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 10

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 32

Exit Diameter (ft): 11.4 Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2952 UTM East (km): 422.3

GEP Stack Height (ft): Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 10

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation
Description 3: Distillate Oil (Diesel)

Description 4: Turbine

Status: A

Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Segment Description: Gas turbine bank (1-12) burning distillate oil.

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit:

Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr /

Comment: 136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #: 2

SCC Code: 10101302

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Liquid Waste Description 4: Waste Oil

Status: I

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:

Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit: Max Percent Ash:

> Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10 ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Segment #:

SCC Code: 20101302

Description 1: **Internal Combustion Engines**

Description 2: **Electric Generation**

Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status:

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit: Max Hourly Rate: Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Pollutant(s) Summary for EU 10

CO -- Carbon Monoxide Pollutant:

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 40.8 Potential (tpy): 179 3

Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

025 -- LB/MMBTU **Emission Factor Unit:**

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

H015 -- Arsenic Compounds (inorganic including arsine) Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

> Potential (lb/hr): Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

```
Emission Factor Unit:
Emission Factor Ref:
Emission Calculation:
```

Comment: Limited to 5 ppm as specification of used oil.

Pollutant: <u>H027</u> -- Cadmium Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):
Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive LII (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited: Emission Factor:

Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant: H046 -- Chromium Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):
Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment: Limited to 10 ppm as specification of used oil.

Pollutant: <u>H106</u> -- Hydrogen chloride (Hydrochloric acid)

Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code:

Potential (lb/hr): Potential (tpy):

Emission Method: Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor Unit:

Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment:

```
Pollutant:
                               H107 -- Hydrogen fluoride (Hydrofluoric acid)
            Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                               H113 -- Manganese Compounds
           Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                               H133 -- Nickel Compounds
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
```

H148 -- Phosphorus

Pollutant:

Primary Control: Secondary Control:

Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment:

> Pollutant: H150 -- Polychlorinated biphenyls (Aroclors)

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

> Potential (lb/hr): Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor: Emission Factor Unit: Emission Factor Ref: **Emission Calculation:**

> Limited to 2 ppm as specification of used oil. Comment:

HAPS -- Total Hazardous Air Pollutants Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS Potential (lb/hr):

Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor:**

Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment:

Pollutant: NOX -- Nitrogen Oxides

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS Potential (lb/hr):

530 Potential (tpy): 2321 **Emission Method:** 0

```
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
```

Emission Factor: 530

Emission Factor Unit: 021 -- LB/HR **PERMIT**

Emission Factor Ref: Emission Calculation:

Comment:

Pollutant: PB -- Lead - Total (elemental lead and lead compounds)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 100 ppm as specification of used oil.

PM -- Particulate Matter - Total Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 51.8 Potential (tpy): 227

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.061

025 -- LB/MMBTU **Emission Factor Unit:**

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: Emission Calculation: Comment:

Pollutant: SAM -- Sulfuric Acid Mist

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

F--:--:-- C----

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: <u>SO2</u> -- Sulfur Dioxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 400

Potential (tpy): 1750

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N

Emission Factor: 71

Emission Factor Unit: 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: TH -- Total Halogens

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

Pollutant: <u>VOC</u> -- Volatile Organic Compounds

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): Potential (tpy):

Emission Method: Estimated Fugitive LL (tpy):

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

ed Fugitive UL (tpy):
Synthetic Limited:

Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Allowable Emissions Information for EU 10

Pollutant: NOX

Sequence Number: 2 Allowable Emission: 530

Comment:

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530 Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Enission rate based on turbine inlet of 59 degrees F. Test one CT.

Allowable Emission Comment: each federal fiscal year

Visible Emissions Information for EU 10

VE Subtype: VE20

Number of VE Tests: 4

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

Regulation: 62-296.320(4)(b)1.

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 10

No Continuous Monitor information found for this EU

Emission Unit ID: 11

Status: A

Description: Combustion Turbine #9

Type: 11.02 -- Gas Turbines

EU Classification: R
Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 63

Model Number: MS7000B

Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

Comment: rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F

condition.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput: Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment: Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 11

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 11

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 32

Exit Diameter (ft): 11.4

Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2952 UTM East (km): 422.3

GEP Stack Height (ft): Non-Stack Height (ft): Comment:

Other EUs With This Point in Common NO EUs IN COMMON

Segment(s) Information for EU 11

Segment #: 1

SCC Code: 20100101

Description 1: **Internal Combustion Engines**

Description 2: **Electric Generation** Description 3: Distillate Oil (Diesel)

Description 4: Turbine

> Status: Α

> > Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Gas turbine bank (1-12) burning distillate oil. Segment Description:

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit:

Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr / Comment:

136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #: 2

SCC Code: 10101302

Description 1: **External Combustion Boilers**

Description 2: **Electric Generation**

Description 3: Liquid Waste Description 4: Waste Oil

Status: I

> Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:

Max Hourly Rate:

Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Segment #: 3

SCC Code: 20101302

Description 1: Internal Combustion Engines

Description 2: Electric Generation
Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status: A

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:
Max Hourly Rate:
Hourly Rate Limit:
Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Pollutant(s) Summary for EU 11

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 40.8 Potential (tpy): 179

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: <u>H015</u> -- Arsenic Compounds (inorganic including arsine)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: Emission Calculation:

Comment: Limited to 5 ppm as specification of used oil.

Pollutant: H027 -- Cadmium Compounds Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Limited to 2 ppm as specification of used oil. Pollutant: H046 -- Chromium Compounds Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: EL Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpv): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Limited to 10 ppm as specification of used oil. Comment: Pollutant: H113 -- Manganese Compounds **Primary Control:** Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit:**

> Pollutant: H133 -- Nickel Compounds

Primary Control: Secondary Control:

Emission Factor Ref: Emission Calculation:

Comment:

```
Control Efficiency:
Pollutant Regulatory Code: NS
Potential (lb/hr):
```

Potential (tpy): Emission Method: stimated Fugitive II (tpy):

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited:

> Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment:

Pollutant: <u>H148</u> -- Phosphorus

Primary Control:
Secondary Control:
Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):
Potential (tpy):
Emission Method:
Estimated Fugitive LL (tpy):

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation: Comment:

Pollutant: <u>H150</u> -- Polychlorinated biphenyls (Aroclors)

Primary Control:
Secondary Control:
Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr):

Potential (tpy): Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant: <u>HAPS</u> -- Total Hazardous Air Pollutants

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): Potential (tpy): Emission Method:

```
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
            Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                               NOX -- Nitrogen Oxides
            Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
                               530
             Potential (tpy):
                               2321
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
                               530
       Emission Factor Unit:
                               021 -- LB/HR
       Emission Factor Ref:
                               PERMIT
       Emission Calculation:
                 Comment:
                               PB -- Lead - Total (elemental lead and lead compounds)
                  Pollutant:
           Primary Control:
         Secondary Control:
       Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               Limited to 100 ppm as specification of used oil.
                  Pollutant:
                               PM -- Particulate Matter - Total
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
                               51.8
             Potential (tpy):
                               227
          Emission Method:
                               3
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
                               0.061
      Emission Factor Unit:
                               025 -- LB/MMBTU
```

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

, Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: SAM -- Sulfuric Acid Mist

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: SO2 -- Sulfur Dioxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 400

Potential (tpy): 1750

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit: 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: TH -- Total Halogens

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor:**

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

VOC -- Volatile Organic Compounds Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy): **Emission Method:**

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: **Emission Calculation:**

Comment:

Allowable Emissions Information for EU 11

Pollutant: NOX

Sequence Number:

Allowable Emission: 530

> Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530

Equivalent (tpy): 2321

Future Effective Date:

Basis: **OTHER**

Regulation:

Compliance Method:

EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

2

Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT Allowable Emission Comment: each federal fiscal year

Visible Emissions Information for EU 11

VE Subtype: **VE20**

Number of VE Tests:

Facility Detail Report

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Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: **RULE**

62-296.320(4)(b)1. Regulation:

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 11

No Continuous Monitor information found for this EU

Emission Unit ID:

Status: Α

Combustion Turbine #10 Description:

Type: 11.02 -- Gas Turbines

EU Classification: Acid Rain Unit:

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

Model Number: MS7000B

Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F Comment:

condition.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Each gas turbine is currently limited to 895 mmBtu heat input per hour at Operating Capacity Comment:

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

<u>Type</u> Regulation

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 12

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 12

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 32

Exit Diameter (ft): 11.4 Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2952 UTM East (km): 422.3

GEP Stack Height (ft): Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 12

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation
Description 3: Distillate Oil (Diesel)

Description 4: Turbine

Status: A

Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Segment Description: Gas turbine bank (1-12) burning distillate oil.

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit:

Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr /

Comment: 136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #: 2

SCC Code: 10101302

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Liquid Waste Description 4: Waste Oil

> Status: I

> > Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit: Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Segment #: 3

SCC Code: 20101302

Description 1: **Internal Combustion Engines**

Description 2: **Electric Generation**

Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status:

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit: Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point Comment:

100 degrees F.

Pollutant(s) Summary for EU 12

CO -- Carbon Monoxide Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): 40.8 Potential (tpy): 179 Emission Method: 3

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

0.048 025 -- LB/MMBTU **Emission Factor Unit:**

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

```
H015 -- Arsenic Compounds (inorganic including arsine)
                  Pollutant:
            Primary Control:
         Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                               Limited to 5 ppm as specification of used oil.
                 Comment:
                  Pollutant:
                               H027 -- Cadmium Compounds
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               Limited to 2 ppm as specification of used oil.
                               H046 -- Chromium Compounds
                  Pollutant:
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
            Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                              Limited to 10 ppm as specification of used oil.
                  Pollutant:
                              H113 -- Manganese Compounds
```

Primary Control: Secondary Control:

Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: H133 -- Nickel Compounds Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: H148 -- Phosphorus **Primary Control:** Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: H150 -- Polychlorinated biphenyls (Aroclors) Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr): Potential (tpy):

Emission Method:

```
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               Limited to 2 ppm as specification of used oil.
                  Pollutant:
                               HAPS -- Total Hazardous Air Pollutants
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               NOX -- Nitrogen Oxides
                  Pollutant:
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
                               530
             Potential (tpy):
                               2321
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
           Emission Factor:
                               530
       Emission Factor Unit:
                               021 -- LB/HR
       Emission Factor Ref:
                               PERMIT
      Emission Calculation:
                 Comment:
                  Pollutant:
                               PB -- Lead - Total (elemental lead and lead compounds)
           Primary Control:
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
            Potential (tpy):
```

Emission Method: Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit:**

Emission Factor Ref: Emission Calculation:

> Comment: Limited to 100 ppm as specification of used oil.

Pollutant: PM -- Particulate Matter - Total

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 51.8 Potential (tpy): 227 **Emission Method:** 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.061

025 -- LB/MMBTU **Emission Factor Unit:**

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

PM10 -- Particulate Matter - PM10 Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

SAM -- Sulfuric Acid Mist Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation: Comment: Pollutant: SO2 -- Sulfur Dioxide

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code:

NS Potential (lb/hr): 400

> Potential (tpy): 1750 **Emission Method:** 3

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

> Synthetic Limited: Ν **Emission Factor:** 71

Emission Factor Unit: 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: TH -- Total Halogens

Primary Control:

Secondary Control: Control Efficiency: Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpv):

Emission Method: Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor:**

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

VOC -- Volatile Organic Compounds Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref:**

Emission Calculation:

Comment:

Allowable Emissions Information for EU 12

Pollutant: NOX

Sequence Number: 2 Allowable Emission: 530

Unit: PH -- POUNDS/HOUR

Facility Detail Report

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Equivalent (lb/hr): 530 Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: EPA

EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment:

Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

each federal fiscal year

Visible Emissions Information for EU 12

VE Subtype: VE20 Number of VE Tests: 1

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

Regulation: 62-29

62-296.320(4)(b)1.

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 12

No Continuous Monitor information found for this EU

Emission Unit ID: 13

Status: A

Description: Combustion Turbine #11

Type: 11.02 -- Gas Turbines

EU Classification: R
Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 63

Model Number: MS7000B

Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

Comment: rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F

condition.

Operating Capacity

Dwell Temp (F): Dwell Time (Sec): Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production: **Production Unit:**

Operating Capacity Comment:

Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Regulation Type

62-296.320(4)(b)1. State

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 13

1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT Type:

Stack #:

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A Discharge Type:

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft):

Exit Diameter (ft): 11.4

Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2952

UTM East (km): 422.3

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUs IN COMMON

Segment(s) Information for EU 13

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Distillate Oil (Diesel)

Description 4: Turbine Status:

> Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Segment Description: Gas turbine bank (1-12) burning distillate oil.

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit: Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr /

Comment: 136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000

kgal/yr /12

Segment #: 2

SCC Code: 10101302

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Liquid Waste Description 4: Waste Oil

Status: I

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:
Max Hourly Rate:
Hourly Rate Limit:
Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

iax i creene risin

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Segment #: 3

SCC Code: 20101302

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status: A

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit:

Max Hourly Rate: Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Pollutant(s) Summary for EU 13

Pollutant: CO -- Carbon Monoxide Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): 40.8 Potential (tpy): 179 Emission Method: 3 Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor:** 0.048 **Emission Factor Unit:** 025 -- LB/MMBTU **Emission Factor Ref:** AP-42 **Emission Calculation:** Comment: Pollutant: H015 -- Arsenic Compounds (inorganic including arsine) Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: EL Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: H027 -- Cadmium Compounds

Limited to 5 ppm as specification of used oil.

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 2 ppm as specification of used oil.

Pollutant:

H046 -- Chromium Compounds

Primary Control: Secondary Control:

http://tlhora6.dep.state.fl.us/arms_reports/fac_detail/Printer/print_page.asp?AIRS_ID=0710002&General_Inf... 7/9/2004

```
Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
```

Limited to 10 ppm as specification of used oil. Comment:

Pollutant: H113 -- Manganese Compounds

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Emission Calculation:

Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:**

Comment:

H133 -- Nickel Compounds Pollutant:

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): Potential (tpy):

Emission Method: Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor:**

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: H148 -- Phosphorus

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): Potential (tpy): **Emission Method:**

```
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
            Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                  Comment:
                   Pollutant:
                               <u>H150</u> -- Polychlorinated biphenyls (Aroclors)
            Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
             Potential (tpy):
           Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
            Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                               Limited to 2 ppm as specification of used oil.
                  Comment:
                  Pollutant:
                               HAPS -- Total Hazardous Air Pollutants
            Primary Control:
         Secondary Control:
         Control Efficiency:
Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               NOX -- Nitrogen Oxides
                  Pollutant:
            Primary Control:
         Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
                               530
             Potential (tpy):
                               2321
          Emission Method:
                               0
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
                               530
       Emission Factor Unit:
                               021 -- LB/HR
```

Emission Factor Ref: PERMIT

Emission Calculation:

Comment:

Pollutant: PB -- Lead - Total (elemental lead and lead compounds)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Limited to 100 ppm as specification of used oil. Comment:

Pollutant: PM -- Particulate Matter - Total

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): 51.8 227

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.061

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy): Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: <u>SAM</u> -- Sulfuric Acid Mist

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: SO2 -- Sulfur Dioxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 400

Potential (tpy): 1750

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N

Emission Factor: 71

Emission Factor Unit: 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: TH -- Total Halogens

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limit

Limited to 1000 ppm as specification of used oil.

Pollutant:

VOC -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit: Emission Factor Ref:

Emission Factor Ref:

Emission Calculation:

Comment:

Allowable Emissions Information for EU 13

Pollutant: NOX

Sequence Number: 2

Allowable Emission: 530

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530 Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment: Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

each federal fiscal year

Visible Emissions Information for EU 13

VE Subtype: VE20

Number of VE Tests: 2

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

Regulation: 62-296.320(4)(b)1.

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 13

No Continuous Monitor information found for this EU

Emission Unit ID: 14

Status: A

Description: Combustion Turbine #12 Type: 11.02 -- Gas Turbines

EU Classification: Acid Rain Unit:

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

Model Number: MS7000B Manufacturer: General Electric

Ozone SIP Base Year Unit:

Startup Date: 5/3/1974

Long-term Reserve Shutdown Date:

The generator nameplate rating given for the gas turbines is the kilowatt

rating/1,000 of one gas turbine (out of a bank of 12) at a 59 degree F Comment:

condition.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 895

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit: Production:

Production Unit:

1 11.55 $(\mathcal{M}_{i}) = \{ (\mathcal{M}_{i})_{i=1}^{n}, \dots, (\mathcal{M}_{i})_{i=1}^{n} \}$

Operating Capacity Comment:

Each gas turbine is currently limited to 895 mmBtu heat input per hour at

25 degrees F, at 760 mmBtu heat input per hour at 59 degrees F.

EU Schedule

Hours per Year: 8760

EU Regulations

Regulation Type

State 62-296.320(4)(b)1.

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 14

1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT Type:

Stack #: 14

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A Discharge Type:

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 32

Exit Diameter (ft): 11.4 Exit Temperature (°F): 975

Exit Velocity (ft/s): 189.4

Actual Volumetric Flow Rate (acfm): 1160000

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2952 UTM East (km): 422.3 GEP Stack Height (ft): Non-Stack Height (ft): Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 14

Segment #: 1

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: Electric Generation
Description 3: Distillate Oil (Diesel)

Description 4: Turbine

Status: A

Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Segment Description: Gas turbine bank (1-12) burning distillate oil.

mmBtu/SCC Unit: 136 Max Hourly Rate: 67

Hourly Rate Limit:

Max Annual Rate: 586920

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit:

Max Percent Ash:

Max% ash=0.01. Max Annual Rate information provided in is based on

8760 hrs/yr of operation. CALCULATIONS:10200mmbtu/hr /

Comment: 136 mm Ptu/kgpl = 75 kgpl/hr 75 kgpl/hpur*9760 hours/kgpl

136mmBtu/kgal = 75 kgal/hr, 75 kgal/hour*8760 hours/year = 657000 kgal/yr /12

Segment #: 2

SCC Code: 10101302

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Liquid Waste Description 4: Waste Oil

Status: I

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-Specification used oil.

mmBtu/SCC Unit: Max Hourly Rate: Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Segment #: 3

SCC Code: 20101302

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Liquid Waste

Description 4: Waste Oil - Turbine

Status: A

Unit: 1000 Gallons Waste Oil Burned

Segment Description: On-specification used oil.

mmBtu/SCC Unit:

Max Hourly Rate: Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit: 1500

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit: Max Percent Ash:

Used oil specifications: Arsenic 5 ppm, Cadmium 2 ppm, Chromium 10

Comment: ppm, Lead 100 ppm, Total Halogens 1000 ppm, PCB 2 ppm, Flash point

100 degrees F.

Pollutant(s) Summary for EU 14

Pollutant: <u>CO</u> -- Carbon Monoxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 40.8 Potential (tpy): 179

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.048

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: <u>H015</u> -- Arsenic Compounds (inorganic including arsine)

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 5 ppm as specification of used oil.

Pollutant:

: <u>H027</u> -- Cadmium Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr):

Potential (tpy):

Emission Method: Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Limited to 2 ppm as specification of used oil. Comment:

Pollutant:

H046 -- Chromium Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Limited to 10 ppm as specification of used oil. Comment:

Pollutant:

H113 -- Manganese Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant:

H133 -- Nickel Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

```
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
            Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                   Pollutant:
                               H148 -- Phosphorus
            Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               H150 -- Polychlorinated biphenyls (Aroclors)
                  Pollutant:
            Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               EL
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               Limited to 2 ppm as specification of used oil.
                  Pollutant:
                               HAPS -- Total Hazardous Air Pollutants
           Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                               NS
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
```

Emission Factor: Emission Factor Unit:

```
Emission Factor Ref:
Emission Calculation:
          Comment:
```

Pollutant: NOX -- Nitrogen Oxides

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS 530

Potential (lb/hr): Potential (tpy): 2321 Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 530

Emission Factor Unit: 021 -- LB/HR **PERMIT Emission Factor Ref:**

Emission Calculation:

Comment:

PB -- Lead - Total (elemental lead and lead compounds) Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Limited to 100 ppm as specification of used oil. Comment:

Pollutant: PM -- Particulate Matter - Total

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

> Potential (lb/hr): 51.8

Potential (tpy): 227

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.061

025 -- LB/MMBTU **Emission Factor Unit:**

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

```
Pollutant: PM10 -- Particulate Matter - PM10
```

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: SAM -- Sulfuric Acid Mist

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: SO2 -- Sulfur Dioxide

NS

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr): 400

Potential (tpy): 1750

Emission Method: 3

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N

Emission Factor: 71

Emission ractor. 71

Emission Factor Unit: 011 -- LB/1000 GAL

Emission Factor Ref: AP-42

Emission Calculation:

Comment:

Pollutant: TH -- Total Halogens

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: Limited to 1000 ppm as specification of used oil.

Pollutant:

VOC -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Allowable Emissions Information for EU 14

Pollutant: NOX

Sequence Number: 2

Allowable Emission: 530

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 530

Equivalent (tpy): 2321

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: EPA Method 7 or 7E reference by 62-201.800 & Project 005-AC

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable emission rate based on turbine inlet of 59 degrees F. Test one CT

Allowable Emission Comment: each federal fiscal yearEPA Method 7 or 7E reference by 62-201.800 &

Project 005-AC

Visible Emissions Information for EU 14

VE Subtype: VE20

Number of VE Tests: 2

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: RULE

Regulation: 62-296.320(4)(b)1.

COM Required:

Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Comment: Test not required in years that fuel oil is fired <400 hrs.

Continuous Monitor for EU 14

No Continuous Monitor information found for this EU

Emission Unit ID: 15

Status: A

Description: Painting of equip. & non halogenated solvent cleaning.

Type: 12.03 -- Insignificant Activity (NO AOR)

EU Classification: U

Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

Model Number:

Manufacturer:

Ozone SIP Base Year Unit:

Startup Date:

Long-term Reserve Shutdown Date:

Comment:

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr):

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

NO EU Schedule Information found for this EU

EU Regulations

NO EU Regulations found for this EU

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 15

Type: 4 -- NO TRUE EMISSION POINT (FUGITIVE EMISSION)

Stack #: 15

Discharge Type: F -- FUGITIVE EMISSIONS, NO STACK EXISTS

Height (ft):

Exit Diameter (ft):

Exit Temperature (°F):

Exit Velocity (ft/s):

Actual Volumetric Flow Rate (acfm):

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone:

UTM North (km):

UTM East (km):

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 15

Segment #: 1

SCC Code: 49099998

Description 1: Petroleum and Solvent Evaporation

Description 2: Organic Solvent Evaporation

Description 3: Miscellaneous Volatile Organic Compound Evaporation

Description 4: Identify the Process and Solvent in Comments

Status: A

Unit: Gallons Solvent Consumed

Segment Description:

mmBtu/SCC Unit:

Max Hourly Rate:

Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit:

Max Percent Ash:

Comment: Non halogenated solvent evaporation and painting of plant equipment.

Pollutant(s) Summary for EU 15

Pollutant: <u>VOC</u> -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: Emission Calculation: Comment:

No Allowable Emissions Information for this EU

Visible Emissions Information for EU 15

No Visible Emission information found for this EU

Continuous Monitor for EU 15

No Continuous Monitor information found for this EU

Emission Unit ID: 16

Status: A

Description: Miscellaneous mobile equip & internal combustion engines.

Type: 12.03 -- Insignificant Activity (NO AOR)

EU Classification: U

Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

Model Number:

Manufacturer:

Ozone SIP Base Year Unit:

Startup Date:

Long-term Reserve Shutdown Date:

Comment:

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr):

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

NO EU Schedule Information found for this EU

EU Regulations

NO EU Regulations found for this EU

Control Equipment

No Control Equipment found for this EU

PSD

NO PSD Information found for this EU

Emission Point Information for EU 16

4 -- NO TRUE EMISSION POINT (FUGITIVE EMISSION) Type:

Stack #:

Discharge Type: F -- FUGITIVE EMISSIONS, NO STACK EXISTS

Height (ft):

Exit Diameter (ft):

Exit Temperature (°F):

Exit Velocity (ft/s):

Actual Volumetric Flow Rate (acfm):

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone:

UTM North (km):

UTM East (km):

GEP Stack Height (ft): Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 16

Segment #: 2

SCC Code: 20100102

Description 1: Internal Combustion Engines

Description 2: Electric Generation Description 3: Distillate Oil (Diesel)

Reciprocating Description 4:

Status:

1000 Gallons Distillate Oil (Diesel) Burned Unit:

Segment Description:

mmBtu/SCC Unit: 136 Max Hourly Rate: 0.02

Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5

Percent S Limit:

Max Percent Ash:

Comment:

Pollutant(s) Summary for EU 16

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: Emission Calculation: Comment:

Pollutant: <u>N</u>

NS

NOX -- Nitrogen Oxides

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant:

PM -- Particulate Matter - Total

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Francisco Colondations

Emission Calculation:

Comment:

Pollutant:

PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Linission Method.

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref: Emission Calculation:

Comment:

Pollutant: SO2 -- Sulfur Dioxide

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: VOC -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method: Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Synthetic Limited.

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

No Allowable Emissions Information for this EU

Visible Emissions Information for EU 16

No Visible Emission information found for this EU

Continuous Monitor for EU 16

No Continuous Monitor information found for this EU

Emission Unit ID: 17

Status: A

Description: Emergency diesel generator

Type: 12.03 -- Insignificant Activity (NO AOR)

EU Classification: U

Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

Model Number:

Manufacturer:

Ozone SIP Base Year Unit: Y

Startup Date:

Long-term Reserve Shutdown Date:

Comment:

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr):

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

NO EU Schedule Information found for this EU

EU Regulations

NO EU Regulations found for this EU

Control Equipment

No Control Equipment found for this EU

· PSD

NO PSD Information found for this EU

Emission Point Information for EU 17

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 17

Discharge Type: H -- A STACK DISCHARGING IN A HORIZONTAL, OR NEARLY HORIZONTAL

DIRECTION

Height (ft): 12

Exit Diameter (ft): 0.5

Exit Temperature (°F): 950

Exit Velocity (ft/s): 252.1

Actual Volumetric Flow Rate (acfm): 2970

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone:

UTM North (km):

UTM East (km):

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 17

Segment #: 3

SCC Code: 20100102

Description 1: Internal Combustion Engines

Description 2: Electric Generation
Description 3: Distillate Oil (Diesel)

Description 4: Reciprocating

Status: A

Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Segment Description:

mmBtu/SCC Unit: 136 Max Hourly Rate: 0.02

Hourly Rate Limit: Max Annual Rate:

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: 0.5 Percent S Limit:

Max Percent Ash:
Comment:

Pollutant(s) Summary for EU 17

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor:

Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment:

Pollutant: NOX -- Nitrogen Oxides

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: PM -- Particulate Matter - Total

Primary Control:

Secondary Control: Control Efficiency: Pollutant Regulatory Code:

Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: PM10 -- Particulate Matter - PM10 Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpv): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: SO2 -- Sulfur Dioxide Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:** Comment: Pollutant: VOC -- Volatile Organic Compounds Primary Control: Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): Potential (tpy): Emission Method: Estimated Fugitive LL (tpy):

NS

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

No Allowable Emissions Information for this EU

Visible Emissions Information for EU 17

No Visible Emission information found for this EU

Continuous Monitor for EU 17

No Continuous Monitor information found for this EU

Emission Unit ID: 18

Status: A

Description: 250MW Combined Cycle Combustion Turbine (2A)

Type: 10.01 -- Electric Utilities

EU Classification: R Acid Rain Unit: Y

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 170

Model Number: MS7241FA

Manufacturer: GENERAL ELECTRIC

Ozone SIP Base Year Unit:

Startup Date: 10/26/2000

Long-term Reserve Shutdown Date:

ONE OF SIX COMBUSTION TURBINES, PART OF THE 1500MW REPOWERING PROJECT.170 MW CT WITH UNFIRED HRSG THAT WILL RAISE SUFFICIENT

Comment:

STEAM TO PRODUCE 80 MW VIA EXISTING STEAM DRIVEN ELECTRICAL

GENERATORS.

Operating Capacity

Dwell: Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 1760

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

Federal 40 CFR 60, SUBPART GG

Federal 40 CFR 60, SUBPART A

Control Equipment

Control Device/Method Control Equipment Description

25 Dry Low NOx combustor

PSD

NO PSD Information found for this EU

Emission Point Information for EU 18

Type: 3 -- MULTIPLE EMISSION POINTS SERVING 1 EMISSIONS UNIT

Stack #: 18

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 125 Exit Diameter (ft): 19 Exit Temperature (°F): 220

Exit Velocity (ft/s): 70.3

Actual Volumetric Flow Rate (acfm): 1196162

Water Vapor %: 7.6

Dry Standard Flow Rate: 858197

UTM Zone: 17

UTM North (km): 2953.03 UTM East (km): 422.3

Comment:

GEP Stack Height (ft):

Non-Stack Height (ft):

TWO RELATIVELY SHORT STACKS FOR SIMPLE AND COMBINED OPERTION!

91.79%

UNIT CAN EXHAUST THROUGH A SIMPLE CYCLE BY-PASS STACK AND HRS

STACK.

Emission Point for Type 3

Test Point Description

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 18

Segment #: 1

SCC Code: 20100201

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Natural Gas
Description 4: Turbine

Status: A

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 923
Max Hourly Rate: 1.91
Hourly Rate Limit:

riodily Rate Ellille.

Max Annual Rate: 16722

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Maximum and Annual rate based on 59 degree F turbine inlet. MILLION

Comment: BTU/SCC AS LHV

Pollutant(s) Summary for EU 18

CO -- Carbon Monoxide Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 43

Potential (tpy): 188.3

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Ν **Emission Factor:**

Emission Factor Unit: 048 -- PPMVD @ 15% O2

Emission Factor Ref: **PERMIT**

Emission Calculation:

Comment:

H095 -- Formaldehyde Pollutant:

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

NOX -- Nitrogen Oxides Pollutant:

Primary Control: 25 -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

> Potential (lb/hr): 65

Potential (tpy): 284.7

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit: 048 -- PPMVD @ 15% O2

Emission Factor Ref: PERMIT

Emission Calculation:

Averaging Time is 30-day. Permit 0710002-006AC. Compliance by CEMS. Comment:

PM -- Particulate Matter - Total Pollutant:

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 10 Potential (tpy): 43.8 Emission Method: 2

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 10

Emission Factor Unit: 021 -- LB/HR

Emission Factor Ref: GE, 1998: B&V 1998

Emission Calculation:

Comment: LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH PROVISION

FOR MARGIN.

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS
Potential (lb/hr): 10

Potential (tpy): 43.8 Emission Method: 2

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 10

Emission Factor Unit: 021 -- LB/HR Emission Factor Ref: GE, 1998

Emission Calculation:

Comment: LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH MARGIN.

Pollutant: <u>SO2</u> -- Sulfur Dioxide

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS
Potential (lb/hr): 5.1
Potential (tpy): 22.5

Emission Method: 2

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Synthetic Limited: N Emission Factor: 1

Emission Factor Unit: 099 -- OTHER (SPECIFY IN COMMENT)

Emission Factor Ref: GOLDER, 1998

Emission Calculation:

Comment: 1 Grain S/100CF. lb/hr and TPY @ 35 F turbine inlet temp.

Pollutant: <u>VOC</u> -- Volatile Organic Compounds

Primary Control: -- Electrostatic Precipitator

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 2.9
Potential (tpy): 12.7
Emission Method: 0

Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
Synthetic Limited: N
Emission Factor: 1.4

Emission Factor Unit: 044 -- PPMVD

Emission Factor Ref: PERMIT

Emission Calculation: Comment:

Allowable Emissions Information for EU 18

Pollutant: CO
Sequence Number: 1
Allowable Emission: 12

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 43 Equivalent (tpy): 188.3

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial and Annual testing

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Pollutant: NOX

Sequence Number: 1
Allowable Emission: 9

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 65 Equivalent (tpy): 284.7

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: 30-day rolling average basis. Initial stack test required.

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Limit of 75/110 ppmvd @ 15% O2 for a total of 90 day period/turbine at the

Allowable Emission Comment: end of construction. Based on BACT for combustion turbines recently done

other facilities.

Pollutant: VOC

Sequence Number: 1.4
Allowable Emission: 1.4

Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 2.9
Equivalent (tpy): 12.7
Future Effective Date:

didie Lilective Date

Basis: OTHER

Regulation:

Compliance Method: Initial test required. CO limit as surrogate thereafter.

Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Facility Detail Report

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Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Visible Emissions Information for EU 18

VE Subtype: **VE10**

Number of VE Tests: 3

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis:

OTHER

Regulation:

COM Required:

Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date:

9/30/2002

Comment:

Based on BACT for combustion turbines recently done in other facilities.

Continuous Monitor for EU 18

CM ID	Parameter	Monitored Pollutant	Manufacturer	Model Number	Serial Number	Installation Date	Performance Specification Test Date	Test Status	Performance Specification Test Cert Date	Comment
1	EM	NOX	TEI	42CHL	66125-351	10/1/2000	10/11/2000	PASS		CEM meet requirement of 40 CFR Part 75
2	02		SERVOMEX	1440C	01420C/1302	9/1/2000	10/11/2000	PASS		

Emission Unit ID: 19

Status:

Description:

250MW Combined Cycle Combustion Turbine (2B)

10.01 -- Electric Utilities Type:

EU Classification: R

Acid Rain Unit: Υ

EU Major Group SIC:

49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 170

Model Number: MS7241FA

Manufacturer:

Comment:

GENERAL ELECTRIC

Ozone SIP Base Year Unit:

Startup Date: 11/22/2000

Long-term Reserve Shutdown Date:

ONE OF SIX COMBUSTION TURBINES, PART OF THE 1500MW REPOWERING

PROJECT.170 MW CT WITH UNFIRED HRSG THAT WILL RAISE SUFFICIENT STEAM TO PRODUCE 80 MW VIA EXISTING STEAM DRIVEN ELECTRICAL

GENERATORS.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 1760

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput: Throughput Unit: Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

Federal 40 CFR 60, SUBPART GG Federal 40 CFR 60, SUBPART A

Control Equipment

Control Device/Method

Control Equipment Description

25 Dry Low NOx combustor

PSD

NO PSD Information found for this EU

Emission Point Information for EU 19

Type: 3 -- MULTIPLE EMISSION POINTS SERVING 1 EMISSIONS UNIT

Stack #: 19

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 125

Exit Diameter (ft): 19
Exit Temperature (°F): 220

Exit Velocity (ft/s): 70.3

Actual Volumetric Flow Rate (acfm): 1196162

Water Vapor %: 7.6
Dry Standard Flow Rate: 858197

UTM Zone: 17

UTM North (km): 2953.03 UTM East (km): 422.3

GEP Stack Height (ft):

Non-Stack Height (ft):

TWO RELATIVELY SHORT STACKS FOR SIMPLE AND COMBINED OPERTION!

Comment: UNIT CAN EXHAUST THROUGH A SIMPLE CYCLE BY-PASS STACK AND HRS

STACK.

Emission Point for Type 3

Test Point Description

Other EUs With This Point in Common

NO EUs IN COMMON

Segment(s) Information for EU 19

Segment #: 1

SCC Code: 20100201

Description 1: Internal Combustion Engines

Description 2: **Electric Generation**

Description 3: Natural Gas Description 4: Turbine

> Status: Α

> > Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 923 Max Hourly Rate: 1.91

Hourly Rate Limit:

Max Annual Rate: 16722

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Comment:

Maximum and Annual rate based on 59 degree F turbine inlet. MILLION

BTU/SCC AS LHV

Pollutant(s) Summary for EU 19

CO -- Carbon Monoxide Pollutant:

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 43 Potential (tpy): 188.3 **Emission Method:** 0

Estimated Fugitive LL (tpv): Estimated Fugitive UL (tpy):

Synthetic Limited: Ν **Emission Factor:** 12

Emission Factor Unit: 048 -- PPMVD @ 15% O2

Emission Factor Ref: PERMIT

Emission Calculation:

Comment:

Pollutant: H095 -- Formaldehyde

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: NOX -- Nitrogen Oxides

25 -- Electrostatic Precipitator Primary Control:

Secondary Control:

Control Efficiency: Pollutant Regulatory Code: EL Potential (lb/hr): 65 Potential (tpy): 284.7 **Emission Method:** 0 Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: Ν **Emission Factor: Emission Factor Unit:** 048 -- PPMVD @ 15% O2 **Emission Factor Ref: PERMIT Emission Calculation:** Comment: Averaging time 30-days. BACT. Compliance by CEMS. Pollutant: PM -- Particulate Matter - Total Primary Control: -- Electrostatic Precipitator Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): 10 Potential (tpy): 43.8 2 . **Emission Method:** Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: Ν Emission Factor: 10 **Emission Factor Unit:** 021 -- LB/HR GE, 1998: B&V 1998 **Emission Factor Ref: Emission Calculation:** LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH PROVISION Comment: FOR MARGIN. Pollutant: PM10 -- Particulate Matter - PM10 Primary Control: -- Electrostatic Precipitator Secondary Control: Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): 10 Potential (tpy): 43.8 **Emission Method:** 2 Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy): Synthetic Limited: Ν **Emission Factor:** 10 **Emission Factor Unit:** 021 -- LB/HR **Emission Factor Ref:** GE, 1998 **Emission Calculation:** Comment: LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH MARGIN. Pollutant: SO2 -- Sulfur Dioxide Primary Control: -- Electrostatic Precipitator Secondary Control:

Control Efficiency: Pollutant Regulatory Code: NS Potential (lb/hr): 5.1 Potential (tpy): 22.5 **Emission Method:** 2

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

> Synthetic Limited: Ν Emission Factor: 1

Emission Factor Unit: 099 -- OTHER (SPECIFY IN COMMENT)

Emission Factor Ref: GOLDER, 1998

Emission Calculation:

1 Grain S/100CF. lb/hr and TPY @ 35 F turbine inlet temp. Comment:

VOC -- Volatile Organic Compounds Pollutant:

-- Electrostatic Precipitator Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr): 2.9 Potential (tpy): 12.7

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Emission Factor:

Emission Factor Unit: 044 -- PPMVD PERMIT

Emission Factor Ref:

Emission Calculation: Comment:

Allowable Emissions Information for EU 19

Pollutant: CO

Sequence Number: 1

Allowable Emission: - 12

> 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2 Unit:

Equivalent (lb/hr): 43 Equivalent (tpy): 188.3

Future Effective Date:

Basis: **OTHER**

Regulation:

Compliance Method: Initial and annual testing.

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

> Frequency Base Date: 9/30/2002

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

> Pollutant: NOX

Sequence Number: 1 Allowable Emission:

> Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 65 Equivalent (tpy): 284.7

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: 30-day rolling average basis. Initial stack test required.

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Limit of 75/110 ppmvd @ 15% O2 for a total of 90 day period/turbine at th

Facility Detail Report

Allowable Emission Comment: end of construction. Based on BACTfor combustion turbines recently done in

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other facilities.

Pollutant: VOC

Sequence Number: 1
Allowable Emission: 1.4

Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 2.9 Equivalent (tpy): 12.7

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial test required. CO limit as surrogate thereafter.

Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Visible Emissions Information for EU 19

VE Subtype: VE10

Number of VE Tests: 4

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: OTHER

Regulation:

COM Required:

Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Comment: Based on BACT for combustion turbines recently done in other facilities.

Continuous Monitor for EU 19

I	CM D	Parameter	Monitored Pollutant	Manufacturer	Model Number	Serial Number	Installation Date	Performance Specification Test Date	Test Status	Performance Specification Test Cert Date	Comment
	1	EM	NOX	TEI	42CHL	66427-352	11/1/2000	11/8/2000	PASS		CEMs meet requirement of 40 CFR Part 75
	2	02		SERVOMEX	1440C	01420C/1304	11/1/2000	11/8/2000	P'ASS		_

Emission Unit ID: 20

Status: A

Description: 250MW Combined Cycle Combustion Turbine (2C)

Type: 10.01 -- Electric Utilities

EU Classification: R
Acid Rain Unit: Y

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 170

Model Number: MS7241FA

Manufacturer: GENERAL ELECTRIC

Ozone SIP Base Year Unit: N

Startup Date: 12/22/2000

Long-term Reserve Shutdown Date:

ONE OF SIX COMBUSTION TURBINES, PART OF THE 1500MW REPOWERING PROJECT.170 MW CT WITH UNFIRED HRSG THAT WILL RAISE SUFFICIENT

Comment: STEAM TO PRODUCE 80 MW VIA EXISTING STEAM DRIVEN ELECTRICAL

GENERATORS.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 1760

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput: Throughput Unit:

Production: Production Unit:

Operating Capacity Comment:

EU Schedule

Hours per Year: 8760

EU Regulations

1

Type Regulation

Federal 40 CFR 60, SUBPART GG

Federal 40 CFR 60, SUBPART A

Control Equipment

<u>Control Device/Method</u> <u>Control Equipment Description</u>

25 Dry Low NOx combustor

PSD

NO PSD Information found for this EU

Emission Point Information for EU 20

Type: 3 -- MULTIPLE EMISSION POINTS SERVING 1 EMISSIONS UNIT

Stack #: 20

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 125

Exit Diameter (ft): 19

Exit Temperature (°F): 220

Exit Velocity (ft/s): 70.3

Actual Volumetric Flow Rate (acfm): 1196162

Water Vapor %: 7.6

Dry Standard Flow Rate: 858197

UTM Zone: 17

UTM North (km): 2953.03

UTM East (km): 422.3

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment:

TWO RELATIVELY SHORT STACKS FOR SIMPLE AND COMBINEDOPERTIONS UNIT CAN EXHAUST THROUGH A SIMPLE CYCLE BY-PASS STACK AND HRS. STACK.

Emission Point for Type 3

Test Point Description

Other EUs With This Point in Common

NO EUs IN COMMON

Segment(s) Information for EU 20

Segment #: 1

SCC Code: 20100201

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Natural Gas Description 4: Turbine

Status: A

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 923 Max Hourly Rate: 1.91

Hourly Rate Limit:

Max Annual Rate: 16722

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Comment: Maximum and Annual rate based on 59 degree F turbine inlet. MILLION

BTU/SCC AS LHV

Pollutant(s) Summary for EU 20

Pollutant: <u>CO</u> -- Carbon Monoxide Primary Control: -- Electrostatic Precipitator

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 43
Potential (tpy): 188.3
Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N

Synthetic Limited: N Emission Factor: 12

Emission Factor Unit: 048 -- PPMVD @ 15% O2

Emission Factor Ref: PERMIT

Emission Calculation:

Comment:

Pollutant: <u>H095</u> -- Formaldehyde Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Estimated Fugitive LL (tpy):

```
Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                  Pollutant:
                              NOX -- Nitrogen Oxides
                              25 -- Electrostatic Precipitator
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                              EL
           Potential (lb/hr):
                               65
             Potential (tpy):
                              284.7
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
                              Ν
           Emission Factor:
      Emission Factor Unit:
                              048 -- PPMVD @ 15% O2
       Emission Factor Ref:
                              PERMIT
      Emission Calculation:
                 Comment:
                              Averaging time 30-days. Compliance by CEMS. Natural gas combustion only.
                  Pollutant:
                              PM -- Particulate Matter - Total
                              -- Electrostatic Precipitator
           Primary Control:
        Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
                              NS
           Potential (lb/hr):
                              10
            Potential (tpy):
                              43.8
          Emission Method:
                              2
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
                              Ν
           Emission Factor:
      Emission Factor Unit:
                              021 -- LB/HR
       Emission Factor Ref:
                              GE, 1998: B&V 1998
      Emission Calculation:
                              LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH PROVISION
                 Comment:
                              FOR MARGIN
                  Pollutant:
                              PM10 -- Particulate Matter - PM10
           Primary Control:
                              -- Electrostatic Precipitator
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                              NS
           Potential (lb/hr):
                              10
            Potential (tpy):
                              43.8
          Emission Method:
```

Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 10

Emission Factor Unit: 021 -- LB/HR Emission Factor Ref: GE, 1998

Emission Calculation:

Comment: LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH MARGIN.

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Pollutant: <u>SO2</u> -- Sulfur Dioxide Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS
Potential (lb/hr): 5.1
Potential (tpy): 22.5

Emission Method: 2
Estimated Fugitive LL (tpy):
Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N

Emission Factor: 1

Emission Factor: 1

Emission Factor Unit: 099 -- OTHER (SPECIFY IN COMMENT)

Emission Factor Ref: GOLDER, 1998

Emission Calculation:

Comment: 1 Grain S/100CF. lb/hr and TPY @ 35 F turbine inlet temp.

Pollutant: <u>VOC</u> -- Volatile Organic Compounds

Primary Control: -- Electrostatic Precipitator

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr): 2.9

Potential (lb/hr): 2.9
Potential (tpy): 12.7
Emission Method: 0

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: N

Emission Factor: 1.4
Emission Factor Unit: 044 -- PPMVD

Emission Factor Ref: PERMIT

Emission Calculation:

Comment:

Allowable Emissions Information for EU 20

Pollutant: CO

Sequence Number: 1 Allowable Emission: 12

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 43 Equivalent (tpy): 188.3

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Intial and annual testing.

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Facility Detail Report

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Pollutant: NOX

Sequence Number: 1 Allowable Emission: 9

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 65 Equivalent (tpy): 287.4

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: 30-day rolling average basis. Initial stack test required.

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Limit of 75/110 ppmvd @ 15% O2 for a total of 90 day period/turbine at th

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Allowable Emission Comment: end of construction. Based on BACTfor combustion turbines recently done in

other facilities.

Pollutant: VOC

Sequence Number: 1 Allowable Emission: 1.4

Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 2.9 Equivalent (tpy): 12.7

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial test required. CO limit as surrogate thereafter.

Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Visible Emissions Information for EU 20

VE Subtype: VE10

Number of VE Tests: 5

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: OTHER

Regulation:

COM Required:

Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Comment: Based on BACT for combustion turbines recently done in other facilities.

Continuous Monitor for EU 20

CM ID	Parameter Po	onitored ollutant	Manufacturer	Model Number	Serial Number	Date	Performance Specification Test Date	Status	Performance Specification Test Cert	Comment
----------	--------------	----------------------	--------------	-----------------	------------------	------	---	--------	---	---------

								Date	
1	EM	TEI	42CHL	66490- 352	12/1/2000	12/12/2000	PASS		CEMs meet requirements of 40 CFR Part 75
2	02	SERVOMEX	14411	01420C- 1402	12/1/2000	12/12/2000	PASS		

Emission Unit ID: 21

Status: A

Description: 250MW Combined Cycle Combustion Turbine (2D)

Type: 10.01 -- Electric Utilities

EU Classification: R Acid Rain Unit: Y

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 170

Model Number: MS7241FA

Manufacturer: GENERAL ELECTRIC

Ozone SIP Base Year Unit:

Startup Date: 12/31/2002

Long-term Reserve Shutdown Date:

ONE OF SIX COMBUSTION TURBINES, PART OF THE 1500MW REPOWERING PROJECT.170 MW CT WITH UNFIRED HRSG THAT WILL RAISE SUFFICIENT

Comment: STEAM TO PRODUCE 80 MW VIA EXISTING STEAM DRIVEN ELECTRICAL

GENERATORS

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 1760

Incin. Rate (lb/hr):

Incin. Rate (ton/day): Throughput:

Throughput Unit: Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation

Federal 40 CFR 60, SUBPART GG Federal 40 CFR 60, SUBPART A

Control Equipment

Control Device/Method Control Equipment Description

25 Dry Low NOx combustor

PSD

NO PSD Information found for this EU

Emission Point Information for EU 21

Type: 3 -- MULTIPLE EMISSION POINTS SERVING 1 EMISSIONS UNIT

Stack #: 21

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

Discharge Type: VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 125

Exit Diameter (ft): 19
Exit Temperature (°F): 220

Exit Velocity (ft/s): 70.3

Actual Volumetric Flow Rate (acfm): 1196162

Water Vapor %: 7.6

Dry Standard Flow Rate: 858197

UTM Zone: 17

UTM North (km): 2953.03 UTM East (km): 422.3

GEP Stack Height (ft):

Non-Stack Height (ft):

TWO RELATIVELY SHORT STACKS FOR SIMPLE AND COMBINED OPERTIONS

Comment: UNIT CAN EXHAUST THROUGH A SIMPLE CYCLE BY-PASS STACK AND HRS

STACK.

Emission Point for Type 3

Test Point Description

Other EUs With This Point in Common

NO EUs IN COMMON

Segment(s) Information for EU 21

Segment #:

SCC Code: 20100201

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Natural Gas
Description 4: Turbine

Status: A

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 923 Max Hourly Rate: 1.91

Hourly Rate Limit:

Max Annual Rate: 16722

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Comment:

Maximum and Annual rate based on 59 degree F turbine inlet. MILLION

BTU/SCC AS LHV

Pollutant(s) Summary for EU 21

Pollutant: CO -- Carbon Monoxide

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 43 Potential (tpy): 188.3

```
Emission Method:
                              0
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
                              Ν
           Emission Factor:
                              12
       Emission Factor Unit:
                              048 -- PPMVD @ 15% O2
       Emission Factor Ref:
                              PERMIT
       Emission Calculation:
                 Comment:
                  Pollutant:
                              NOX -- Nitrogen Oxides
           Primary Control:
                              25 -- Electrostatic Precipitator
         Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                              EL
           Potential (lb/hr):
                              65
             Potential (tpy):
                              284.7
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
                              Ν
           Emission Factor:
      Emission Factor Unit:
                              048 -- PPMVD @ 15% O2
       Emission Factor Ref:
                              PERMIT
       Emission Calculation:
                 Comment:
                              Averaging Time 30-days. Compliance by CEMS.
                  Pollutant:
                              PM -- Particulate Matter - Total
           Primary Control:
                              -- Electrostatic Precipitator
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                              NS
           Potential (lb/hr):
                              10
            Potential (tpy):
                              43.8
          Emission Method:
                              2
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
                              Ν
           Emission Factor:
                              10
      Emission Factor Unit:
                              021 -- LB/HR
       Emission Factor Ref:
                              GE, 1998: B&V 1998
      Emission Calculation:
                              LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH PROVISION
                 Comment:
                              FOR MARGIN.
                  Pollutant:
                              PM10 -- Particulate Matter - PM10
           Primary Control:
                              -- Electrostatic Precipitator
        Secondary Control:
         Control Efficiency:
 Pollutant Regulatory Code:
                              NS
           Potential (lb/hr):
                              10
            Potential (tpy):
                              43.8
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
         Synthetic Limited:
                              Ν
```

Emission Factor: 10

Emission Factor Unit: 021 -- LB/HR Emission Factor Ref: GE, 1998

Emission Calculation:

Comment: LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH MARGIN.

Pollutant: <u>SO2</u> -- Sulfur Dioxide Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS Potential (lb/hr): 5.1

Potential (tpy): 22.5 Emission Method: 2

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 1

Emission Factor Unit: 099 -- OTHER (SPECIFY IN COMMENT)

Emission Factor Ref: GOLDER, 1998

Emission Calculation:

Comment: 1 Grain S/100CF. lb/hr and TPY @ 35 F turbine inlet temp.

Pollutant: <u>VOC</u> -- Volatile Organic Compounds

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL
Potential (lb/hr): 2.9
Potential (tpy): 12.72
Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 1.4

Emission Factor Unit: 044 -- PPMVD Emission Factor Ref: PERMIT

Emission Factor Ref: Emission Calculation:

Comment:

Allowable Emissions Information for EU 21

Pollutant: CO

Sequence Number: 1 Allowable Emission: 12

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 43 Equivalent (tpy): 188.3

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial and annual testing.

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Pollutant: NOX

Sequence Number: 1 Allowable Emission: 9

> Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 65 Equivalent (tpy): 284.7

Future Effective Date:

Basis: **OTHER**

Regulation:

Compliance Method: 30-day rolling average basis. Initial stack test required.

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

> Frequency Base Date: 9/30/2002

Limit of 75/110 ppmvd @ 15% O2 for a total of 90 day period/turbine at th

Allowable Emission Comment: end of construction. Based on BACTfor combustion turbines recently done in

other facilities.

VOC Pollutant:

Sequence Number: 1 Allowable Emission: 1.4

> Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 2.9 Equivalent (tpy): 12.7

Future Effective Date:

Basis: **OTHER**

Regulation:

Compliance Method: Initial test required. CO limit as surrogate thereafter.

1 -- STACK TEST Compliance Method Code: Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Visible Emissions Information for EU 21

VE Subtype: **VE10** Number of VE Tests: 4

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional Condition (min/hr):

OTHER Basis:

Regulation: COM Required:

Test Frequency:

11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

> Comment: Based on BACT for combustion turbines recently done in other facilities.

Continuous Monitor for EU 21

]	CM ID	Parameter	Monitored Pollutant	Manufacturer	Model Number	Serial Number	Installation Date	Performance Specification Test Date	Test Status	Performance Specification Test Cert Date	
											CEMs meet

Facility Detail Report									
1	EM	NOX	TEI	42CHL	66131-351	1/1/2001	4/12/2001	PASS	requirement of 40 CFR Part 75
2	02		SERVOMEX	1440C	01420C/1403	1/1/2001	4/12/2001	PASS	

Emission Unit ID: 22

Status:

Description: 250MW Combined Cycle Combustion Turbine (2E)

Type: 10.01 -- Electric Utilities

EU Classification: Acid Rain Unit: Υ

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 170

> Model Number: MS7241FA

Manufacturer: **GENERAL ELECTRIC**

Ozone SIP Base Year Unit:

Startup Date: 12/31/2002

Long-term Reserve Shutdown Date:

ONE OF SIX COMBUSTION TURBINES, PART OF THE 1500MW REPOWERING PROJECT.170 MW CT WITH UNFIRED HRSG THAT WILL RAISE SUFFICIENT STEAM TO PRODUCE 80 MW VIA EXISTING STEAM DRIVEN ELECTRICAL

GENERATORS.

Operating Capacity

Dwell Temp (F):

Comment:

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 1760

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput: Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

Hours per Year: 8760

EU Regulations

Regulation Type

Federal 40 CFR 60, SUBPART GG

40 CFR 60, SUBPART A Federal

Control Equipment

Control Device/Method Control Equipment Description

Dry Low NOx combustor 25

PSD

NO PSD Information found for this EU

Emission Point Information for EU 22

Type: 3 -- MULTIPLE EMISSION POINTS SERVING 1 EMISSIONS UNIT

Stack #: 22

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A Discharge Type:

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 125

Exit Diameter (ft): 19 Exit Temperature (°F): 220 Exit Velocity (ft/s): 70.3

Actual Volumetric Flow Rate (acfm): 1196162

Water Vapor %: 7.6

Dry Standard Flow Rate: 858197

UTM Zone: 17

UTM North (km): 2953.03 UTM East (km): 422.3

GEP Stack Height (ft):

Non-Stack Height (ft):

TWO RELATIVELY SHORT STACKS FOR SIMPLE AND COMBINED OPERTION:

UNIT CAN EXHAUST THROUGH A SIMPLE CYCLE BY-PASS STACK AND HRS Comment:

STACK.

Emission Point for Type 3

Test Point Description

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 22

Segment #: 1

SCC Code: 20100201

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Natural Gas Description 4: Turbine

Status:

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 923 Max Hourly Rate: 1.91

Hourly Rate Limit:

Max Annual Rate: 16722

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Comment:

Maximum and Annual rate based on 59 degree F turbine inlet. MILLION

BTU/SCC AS LHV

Pollutant(s) Summary for EU 22

Pollutant: CO -- Carbon Monoxide

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

> Potential (lb/hr): 43

Potential (tpy): 188.3

Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 12

Emission Factor Unit: 048 -- PPMVD @ 15% O2

Emission Factor Ref: PERMIT

Emission Calculation:

Comment:

Pollutant: NOX -- Nitrogen Oxides

Primary Control: 25 -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 65
Potential (tpy): 284.7
Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 9

Emission Factor Unit: 048 -- PPMVD @ 15% 02

Emission Factor Ref: PERMIT

Emission Calculation:

Comment: Averaging time 30-days. Compliance by CEMS.

Pollutant: PM -- Particulate Matter - Total

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 10 Potential (tpy): 43.8 Emission Method: 2

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: N

Emission Factor: 10

Emission Factor Unit: 021 -- LB/HR

Emission Factor Ref: GE, 1998: B&V 1998

Emission Calculation:

Comment: LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH PROVISION

FOR MARGIN.

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 10 Potential (tpy): 43.8 Emission Method: 2

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: N
Emission Factor: 10

Emission Factor Unit: 021 -- LB/HR

Emission Factor Ref: GE, 1998

Emission Calculation:

Comment: LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH MARGIN.

SO2 -- Sulfur Dioxide Pollutant:

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 5.1 Potential (tpy): 22.5

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Ν Emission Factor:

Emission Factor Unit: 099 -- OTHER (SPECIFY IN COMMENT)

GOLDER, 1998 Emission Factor Ref:

Emission Calculation:

1 Grain S/100CF. lb/hr and TPY @ 35 F turbine inlet temp. Comment:

VOC -- Volatile Organic Compounds Pollutant:

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr): 2.9

Potential (tpy): 12.7 0

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Ν **Emission Factor:** 1.4

Emission Factor Unit: 044 -- PPMVD

Emission Factor Ref: **PERMIT**

Emission Calculation:

Comment:

Allowable Emissions Information for EU 22

Pollutant: CO

Sequence Number: 1

Allowable Emission: 12

> Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 43

Equivalent (tpy): 188.3

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial and annual testing.

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

> NOX Pollutant:

Sequence Number:

Allowable Emission: 9

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 65 Equivalent (tpy): 284.7

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: 30-day rolling average basis. Initial stack test required.

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Limit of 75/110 ppmvd @ 15% O2 for a total of 90 day period/turbine at th

Allowable Emission Comment: end of construction. Based on BACT for combustion turbines recently done

other facilities.

Pollutant: VOC

Sequence Number: 1
Allowable Emission: 1.4

Unit: 04

t: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 2.9 Equivalent (tpy): 12.7

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial test required. CO limit as surrogate thereafter.

Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Visible Emissions Information for EU 22

VE Subtype: VE10

Number of VE Tests: 4

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: OTHER

Regulation:

COM Required:

Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Comment: Based on BACT for combustion turbines recently done in other facilities.

Continuous Monitor for EU 22

]	CM [D	Parameter	Monitored Pollutant	Manufacturer	Model Number	Serial Number	Date	Performance Specification Test Date	Test Status	Performance Specification Test Cert Date	Comment
	1	EM	NOX	TEI	42CHL	65868-350	2/1/2001	4/3/2001	PASS		CEMs meet requirements of 40 CFR Par

Page 143 of 179 Facility Detail Report 75 02 **SERVOMEX** 1440C 01420/1466 2/1/2001 4/3/2001 **PASS**

> **Emission Unit ID:** 23

Status:

250MW Combined Cycle Combustion Turbine (2F) Description:

> 11.01 -- Reciprocating Engines Type:

EU Classification: Acid Rain Unit:

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 170

> Model Number: MS7241FA

Manufacturer: **GENERAL ELECTRIC**

Ozone SIP Base Year Unit:

Startup Date: 12/31/2002

Long-term Reserve Shutdown Date:

ONE OF SIX COMBUSTION TURBINES, PART OF THE 1500MW REPOWERING

PROJECT.170 MW CT WITH UNFIRED HRSG THAT WILL RAISE SUFFICIENT STEAM TO PRODUCE 80 MW VIA EXISTING STEAM DRIVEN ELECTRICAL

GENERATORS.

Operating Capacity

Dwell Temp (F):

Comment:

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 1760

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

Hours per Year: 8760

EU Regulations

Regulation Type

40 CFR 60, SUBPART GG Federal Federal 40 CFR 60, SUBPART A

Control Equipment

Control Device/Method Control Equipment Description

Dry Low NOx combustor 25

PSD

NO PSD Information found for this EU

Emission Point Information for EU 23

3 -- MULTIPLE EMISSION POINTS SERVING 1 EMISSIONS UNIT Type:

Stack #: 23

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A Discharge Type:

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 125

Exit Diameter (ft): 19

Exit Temperature (°F): 220 Exit Velocity (ft/s): 70.3

Actual Volumetric Flow Rate (acfm): 1196162

Water Vapor %: 7.6

Dry Standard Flow Rate: 858197

UTM Zone: 17

UTM North (km): 2953.03 UTM East (km): 422.3

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment: Unit can exhaust through a simple cycle by-pass stack and HRSG.

Emission Point for Type 3

Test Point Description

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 23

Segment #: 1

SCC Code: 20100201

Description 1: Internal Combustion Engines

Description 2: Electric Generation

Description 3: Natural Gas
Description 4: Turbine

Status: A

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 923 Max Hourly Rate: 1.91

Hourly Rate Limit:

Max Annual Rate: 16722

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit:

Max Percent Ash:

Comment: Maximum and Annual rate based on 59 degree F turbine inlet. MILLION

BTU/SCC AS LHV

Pollutant(s) Summary for EU 23

Pollutant: <u>CO</u> -- Carbon Monoxide

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 43 Potential (tpy): 188.3

Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N
Emission Factor: 12

Emission Factor Unit: 048 -- PPMVD @ 15% O2

Emission Factor Ref: PERMIT

Emission Calculation:

Comment: Averaging time 30-days. Compliance by CEMS.

Pollutant: NOX -- Nitrogen Oxides

Primary Control: 25 -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 65
Potential (tpy): 284.7
Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 9

Emission Factor Unit: 048 -- PPMVD @ 15% O2

Emission Factor Ref: PERMIT

Emission Calculation:

Comment: Averaging time 30-day. Compliance by CEMS.

Pollutant: <u>PM</u> -- Particulate Matter - Total Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS Potential (lb/hr): 10

> Potential (tpy): 43.8 Emission Method: 2

Estimated Fugitive LL (tpv):

Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 10

Emission Factor Unit: 021 -- LB/HR

Emission Factor Ref: GE, 1998: B&V 1998

Emission Calculation:

Comment: LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH PROVISION

FOR MARGIN.

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 10 Potential (tpy): 43.8 Emission Method: 2

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 10

Emission Factor Unit: 021 -- LB/HR Emission Factor Ref: GE, 1998

Emission Calculation:

Comment: LB/HR BASED ON MAXIMUM PROVIDED BY MANUFACTURER WITH MARGIN.

Pollutant: <u>SO2</u> -- Sulfur Dioxide Primary Control: -- Electrostatic Precipitator

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS
Potential (lb/hr): 5.1
Potential (tpy): 22.5
Emission Method: 2

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 1

Emission Factor Unit: 099 -- OTHER (SPECIFY IN COMMENT)

Emission Factor Ref: GOLDER, 1998

Emission Calculation:

Comment: 1 Grain S/100CF. lb/hr and TPY @ 35 F turbine inlet temp.

Pollutant: VOC -- Volatile Organic Compounds

Primary Control: -- Electrostatic Precipitator

Secondary Control:

Control Efficiency:
Pollutant Regulatory Code: EL

Potential (lb/hr): 2.9
Potential (tpy): 12.7
Emission Method: 0
Fugitive LL (tpy):

Estimated Fugitive LL (tpy): .
Estimated Fugitive UL (tpy):

Synthetic Limited: N Emission Factor: 1.4

Emission Factor Unit: 044 -- PPMVD

Emission Factor Ref: PERMIT

Emission Calculation: Comment:

Allowable Emissions Information for EU 23

Pollutant: CO

Sequence Number: 1

Allowable Emission: 12

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 43 Equivalent (tpy): 188.3

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial and annual testing.

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Pollutant: NOX

Sequence Number: 1
Allowable Emission: 9

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 65 Equivalent (tpy): 284.7 Facility Detail Report

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Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: 30-day rolling average basis. Initial stack test required.

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Limit of 75/110 ppmvd @ 15% O2 for a total of 90 day period/turbine at th

Allowable Emission Comment: end of construction. Based on BACTfor combustion turbines recently done in

other facilities.

Pollutant: VOC

Sequence Number: 1 Allowable Emission: 1.4

Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 2.9 Equivalent (tpy): 12.7

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial test required. CO limit as surrogate thereafter.

Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Visible Emissions Information for EU 23

VE Subtype: VE10

Number of VE Tests: 3

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: OTHER

Regulation:

COM Required:

Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Comment: Based on BACT for combustion turbines recently done in other facilities.

Continuous Monitor for EU 23

C	Parameter	Monitored Pollutant	Manufacturer	Model Number	Serial Number	Installation Date	Performance Specification Test Date	Test Status	Performance Specification Test Cert Date	Comment
1	EM	NOX	TEI	42CHL	69215-362	3/1/2001	5/31/2001	PASS		CEMs meet requirement of 40 CFR Part 75
2	02		SERVOMEX	1440C	01420C/1444	3/1/2001	5/31/2001	PASS		

Emission Unit ID:

Status: Α

Description: 6 Natural Gas Pre-Heaters

10.01 -- Electric Utilities Type:

EU Classification: Acid Rain Unit:

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

Model Number: Manufacturer: GE

Ozone SIP Base Year Unit:

Startup Date: -12/31/2002

Long-term Reserve Shutdown Date:

Natural Gas firing, part of the 1500MW Repwering Project. Fuel heating prio Comment:

to use during simple cycle operations and cold startups.

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 132

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

NO EU Schedule Information found for this EU

EU Regulations

Regulation Type

40 CFR 60, SUBPART Db Federal

Control Equipment

Control Device/Method Control Equipment Description

> Low Nox burners 24

PSD

NO PSD Information found for this EU

Emission Point Information for EU 24

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #:

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A Discharge Type:

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 21

Exit Diameter (ft): 2

Exit Temperature (°F): 375

Exit Velocity (ft/s): 24.6

Actual Volumetric Flow Rate (acfm): 4639

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17 UTM North (km): 2953

UTM East (km): 422.2

GEP Stack Height (ft): Non-Stack Height (ft): Comment:

Other EUs With This Point in Common NO EUS IN COMMON

Segment(s) Information for EU 24

Segment #:

SCC Code: 10100601

Description 1: **External Combustion Boilers**

Description 2: **Electric Generation**

Natural Gas Description 3:

Description 4: Boilers > 100 Million Btu/hr except Tangential

Status:

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 1024 Max Hourly Rate: 0.017

Hourly Rate Limit:

Max Annual Rate: 146

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash: Comment:

Pollutant(s) Summary for EU 24

Pollutant: CO -- Carbon Monoxide

-- Electrostatic Precipitator Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): 19.8 Potential (tpy): 86.8 **Emission Method:**

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: 0.15

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: PERMIT

Emission Calculation:

Comment:

Pollutant: NOX -- Nitrogen Oxides

Primary Control: 24

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

> Potential (lb/hr): 13.2

Potential (tpy): 57.8

Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor: 0.1

Emission Factor Unit: 025 -- LB/MMBTU

Emission Factor Ref: PERMIT

Emission Calculation:

Comment:

Pollutant: PM -- Particulate Matter - Total

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

ETHISSION FACTOR Ref

Emission Calculation:

Comment:

Pollutant: SO2 -- Sulfur Dioxide

Primary Control:

Secondary Control:

Control Éfficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation: Comment:

Pollutant: <u>VOC</u> -- Volatile Organic Compounds

Primary Control: Secondary Control: Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr): Potential (tpy): Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:
 Emission Factor:
Emission Factor Unit:
Emission Factor Ref:
Emission Calculation:
 Comment:

Allowable Emissions Information for EU 24

Pollutant: CO

Sequence Number: 1 Allowable Emission: 0.15

Unit: 01 -- POUNDS PER MILLION BTU HEAT INPUT

Equivalent (lb/hr): 19.8 Equivalent (tpy): 86.8

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial stack test on two of the six heaters.

 $\begin{array}{lll} \mbox{Compliance Method Code:} & \mbox{1 --- STACK TEST} \\ \mbox{Compliance Test Frequency:} & \mbox{0 --- NONE REQUIRED} \end{array}$

Frequency Base Date:

Allowable Emission Comment: Basis for allowable emissions: 0710002-008-AC.

Pollutant: NOX

Sequence Number: 1 Allowable Emission: 0.1

Unit: 01 -- POUNDS PER MILLION BTU HEAT INPUT

Equivalent (lb/hr): 13.2 Equivalent (tpy): 57.8

Future Effective Date:

Basis: OTHER

Regulation:

Compliance Method: Initial stack test on two of the six heaters.

Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Based on BACT for combustion turbines recently done in other facilities.

Visible Emissions Information for EU 24

VE Subtype: VE10

Number of VE Tests: 2

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: OTHER

Regulation:

COM Required:

Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Comment: Based on BACT for combustion turbines recently done in other facilities.

Continuous Monitor for EU 24

No Continuous Monitor information found for this EU

Emission Unit ID: 25

Status: A

Description: MECHANICAL DRAFT COOLING TOWER

Type: 12.03 -- Insignificant Activity (NO AOR)

EU Classification: U

Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

Model Number:

Manufacturer:

Ozone SIP Base Year Unit:

Startup Date: 12/31/2002

Long-term Reserve Shutdown Date:

Comment: WATER COOLING, PART OF THE 1500MW REPOWERING PROJECT

Operating Capacity

Dwell Temp (F):

Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr):

Incin. Rate (lb/hr):

Incin. Rate (ton/day):

Throughput:

Throughput Unit:

Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

NO EU Schedule Information found for this EU

EU Regulations

NO EU Regulations found for this EU

Control Equipment

Control Device/Method

Control Equipment Description

Mist eliminator.

PSD

NO PSD Information found for this EU

Emission Point Information for EU 25

1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 25

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A Discharge Type:

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft):

Exit Diameter (ft): 110.85

Exit Temperature (°F):

Exit Velocity (ft/s):

Actual Volumetric Flow Rate (acfm):

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone:

UTM North (km):

UTM East (km):

GEP Stack Height (ft): Non-Stack Height (ft):

Comment:

Includes 12 cells. Design air flow rate per cell is 1,388,000 acfm. The

diameter given is the effective diameter for all cells.

Other EUs With This Point in Common

NO EUs IN COMMON

Segment(s) Information for EU 25

Segment #: 1

SCC Code: 38500101

Description 1: **Industrial Processes**

Description 2: Cooling Tower

Description 3: **Process Cooling**

Description 4: Mechanical Draft

Status:

Unit: Million Gallons Cooling Water Throughput

Segment Description:

mmBtu/SCC Unit:

Max Hourly Rate:

Hourly Rate Limit:

Max Annual Rate:

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit:

Max Percent Ash:

Comment:

Pollutant(s) Summary for EU 25

Pollutant: PM -- Particulate Matter - Total

Primary Control: 15

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant:

PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: NS

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

No Allowable Emissions Information for this EU

Visible Emissions Information for EU 25

No Visible Emission information found for this EU

Continuous Monitor for EU 25

No Continuous Monitor information found for this EU

Emission Unit ID: 27

Status:

Description:

170 MW Simple Cycle Combustion Turbine #1 (3A)

10.01 -- Electric Utilities Type:

EU Classification: R

Acid Rain Unit:

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

170

Model Number:

7241 FA Manufacturer: GE

Ozone SIP Base Year Unit:

Startup Date:

4/30/2003

Long-term Reserve Shutdown Date:

Limited to 500 hr/yr on oil and (500 hr/yr) on high power mode(HPM)- 440

'acility Detail Report

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Comment: hr power augmentation and 60 hr high temperature peaking.

Operating Capacity

Dwell Temp (F): Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 1600

Incin. Rate (lb/hr): Incin. Rate (ton/day):

Throughput: Throughput Unit: Production: Production Unit:

Operating Capacity Comment:

Natural gas firing. For HPM the maximum heat rate is 1680mmBtu/hr and

1811 (oil-baseload) mmBtu/hr.

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation
State 62-212.400

Federal 40 CFR 60 Subpart GG Federal 40 CFR 60 Subpart A

Control Equipment

<u>Control Device/Method</u> <u>Control Equipment Description</u>

205 Dry Low Nox Technology28 Wet Injection for firing oil

PSD

ICE Code Baseline Emission (ton/yr)

Baseline Emission (lb/hr)

SO2 NO2

PΜ

CommentPSD-FL-298 (ONLY FOR VOC)

Emission Point Information for EU 27

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 27

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 80
Exit Diameter (ft): 20.5
Exit Temperature (°F): 1116

Exit Velocity (ft/s): 120.7

Actual Volumetric Flow Rate (acfm): 2389462

Water Vapor %: 8.4
Dry Standard Flow Rate: 800000

UTM Zone: 17

UTM North (km): 2992.9 UTM East (km): 543.1

GEP Stack Height (ft): Non-Stack Height (ft):

Comment: flow for oil at 1,098degF= 2,464,273 ACFM; HPM 1,130degF=2,426,858

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 27

Segment #: 1

SCC Code: 20100201

Description 1: **Internal Combustion Engines**

Description 2: **Electric Generation**

Description 3: Natural Gas Description 4: Turbine

Status:

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 950 Max Hourly Rate: 1.68 Hourly Rate Limit:

Max Annual Rate: 14752

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash: Comment:

> Segment #: 2

SCC Code: 20100101

Description 1: **Internal Combustion Engines**

Description 2: **Electric Generation** Distillate Oil (Diesel) Description 3:

Description 4: Turbine

Status:

Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Segment Description:

mmBtu/SCC Unit: 130 Max Hourly Rate: 14 Hourly Rate Limit:

Max Annual Rate: 7000

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit: 0.05

Max Percent Ash:

Comment: limited to 500 hours/year

Pollutant(s) Summary for EU 27

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 65

Potential (tpy): 139.8

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Υ

Emission Factor:

```
Emission Factor Unit:
```

Emission Factor Ref:

Emission Calculation:

Comment:

GE 2000 GOLDER

lb/yr based on oil firing(500hr/yr). Tons/yr based on 7760 hrs/yr gas firing, and 500 hrs/yr oil firing and HPM.

NOX -- Nitrogen Oxides Pollutant:

Υ

Primary Control: Secondary Control: 28

Control Efficiency:

Pollutant Regulatory Code:

EL Potential (lb/hr): 320 Potential (tpy): 373.22

Emission Method: 0 Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: **Emission Factor: Emission Factor Unit: Emission Factor Ref:**

Emission Calculation:

lb/yr based on oil firing. Ton/yr based on gas firing(7760hr/yr), oil firing and

HPM(500hr/yr).

Pollutant: PM -- Particulate Matter - Total

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 17 Potential (tpv): 45.6

Comment:

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

oil firing. Ton/yr based on gas firing (7760 hr/yr), oil firing and HPM (500 hr/yr Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

> Potential (lb/hr): 17 Potential (tpy): 45.6 **Emission Method:**

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment: oil firing. tons/yr based on gas firing (7760 hr/yr), oil firing and HPM (500

lb/yr).

Pollutant: SO2 -- Sulfur Dioxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 103.1 Potential (tpy): 44.9

Emission Method: 5

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Y

Emission Factor:

Emission Factor Unit: 099 -- OTHER (SPECIFY IN COMMENT)

Emission Factor Ref:

Emission Calculation:

Comment: oil firing. tons/yr based on gas firing(7760hr/yr), oil firing and HPM (500hr/yr).

Emission factor=1 grain S per 100 cf gas.

Pollutant: <u>VOC</u> -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 7.3 Potential (tpy): 13.1

Emission Method: 5

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Y

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: oil firing. tons/yr based on gas firing (7760 hr/yr),oil firing and HPM(500 hrs/yr

Allowable Emissions Information for EU 27

Pollutant: CO

Sequence Number: 1

Allowable Emission:

Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 29 Equivalent (tpy): 139.8

Future Effective Date: 12/31/2002

Basis: ESCPSD

Regulation:

Compliance Method: Stack test

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003

Allowable Emission Comment: Gas firing base case

Pollutant: CO

Sequence Number: 2

Allowable Emission: 20

> Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): Equivalent (tpy): 139.8 Future Effective Date: 12/31/2002

ESCPSD Basis:

Regulation:

Compliance Method: Stack Test

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003 Allowable Emission Comment: Oil firing.

> ·CO Pollutant:

Sequence Number: 3 Allowable Emission:

Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 48 Equivalent (tpy): 139.8

Future Effective Date: 12/31/2002

Basis: **ESCPSD**

Regulation:

Compliance Method: Stack test

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003

Allowable Emission Comment: Gas firing high power mode

> Pollutant: NOX

Sequence Number: 1 Allowable Emission: 10.5

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 69 Equivalent (tpy): 373.22 Future Effective Date: 12/31/2002

Basis: **ESCPSD**

Regulation:

Compliance Method: Stack test and CEM 30 day rolling average

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003

Allowable Emission Comment: Gas firing base case

> Pollutant: NOX

Sequence Number: 2 Allowable Emission: 42

> 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2 Unit:

Equivalent (lb/hr): 320 Equivalent (tpy): 373.22 Future Effective Date: 12/31/2002 Basis: **ESCPSD**

Regulation:

Compliance Method: Stack Test and CEM Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003 Allowable Emission Comment: oil firing

Pollutant: NOX

```
Sequence Number: 3
Allowable Emission: 15
```

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 102 Equivalent (tpy): 373.22 Future Effective Date: 12/31/2002 Basis: ESCPSD

Regulation:

Compliance Method: Stack test and CEM 24 hour rolling average

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003

Allowable Emission Comment: Gas firing high power mode

Pollutant: PM
Sequence Number: 1

Allowable Emission: 10

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 10 Equivalent (tpy): 45.6

Future Effective Date:

Basis: ESCPSD

Regulation:

Compliance Method: Stack test

Compliance Method Code: 1 -- STACK TEST Compliance Test Frequency: 5 -- EVERY 5 YEARS

Frequency Base Date: 12/31/2003

Allowable Emission Comment: natural gas. tons/yr based on gas firing(8260hr/yr), oil firing (500hr/yr).

Pollutant: PM

Sequence Number: 2
Allowable Emission: 17

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 17 Equivalent (tpy): 45.6

Future Effective Date:

Basis: ESCPSD

Regulation:

Compliance Method: Stack Test

Compliance Method Code: 1 -- STACK TEST Compliance Test Frequency: 5 -- EVERY 5 YEARS

Frequency Base Date: 12/31/2003

Allowable Emission Comment: fuel oil. Ton/yr based on gas firing(8260hr/yr), oil firing (500hr/yr)

Pollutant: PM10

Sequence Number: 1 Allowable Emission: 10

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 10 Equivalent (tpy): 45.6

Future Effective Date:

Basis: ESCPSD

Regulation:

Compliance Method: PM Stack test
Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: natural gas. tons/yr based on gas firing(8260 hr/yr), oil firing (500 hr/yr).

Pollutant: **PM10** Sequence Number: 2 Allowable Emission: 17 Unit: PH -- POUNDS/HOUR Equivalent (lb/hr): 17 45.6 Equivalent (tpy): Future Effective Date: Basis: **ESCPSD** Regulation: Compliance Method: PM Stack Test Compliance Method Code: 1 -- STACK TEST Compliance Test Frequency: 0 -- NONE REQUIRED Frequency Base Date: Allowable Emission Comment: fuel oil. tons/yr based on gas firing(8260hr/yr), oil firing (500hr/yr) Pollutant: **SO2** Sequence Number: 1 Allowable Emission: 0.05 35 -- PERCENT SULFUR IN FUEL Unit: Equivalent (lb/hr): 103.1 Equivalent (tpy): 24.7 Future Effective Date: 12/31/2002 Basis: **ESCPSD** Regulation: Compliance Method: **Fuel Analysis** Compliance Method Code: 4 -- FUEL SAMPLING Compliance Test Frequency: 0 -- NONE REQUIRED Frequency Base Date: Allowable Emission Comment: oil firing, tons/yr based on gas firing(8260hr/yr), oil firing (500hr/yr). Pollutant: **SO2** Sequence Number: 2 Allowable Emission: Unit: 99 -- OTHER (SPECIFY IN COMMENT) Equivalent (lb/hr): 5.1 Equivalent (tpy): 21.5 12/31/2002 Future Effective Date: Basis: **ESCPSD** Regulation: Compliance Method: fuel analysis Compliance Method Code: 4 -- FUEL SAMPLING 0 -- NONE REQUIRED Compliance Test Frequency: Frequency Base Date: natural gas. unit= grains per 100 scf of natural gas. tons/yr based on gas Allowable Emission Comment: firing(8260 hr/yr), oil firing (500hr/yr). VOC Pollutant: Sequence Number: 1 Allowable Emission: 1.5 Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 2.8 Equivalent (tpy): 12

Future Effective Date: 12/31/2002

> Basis: RULE

62-212.400 Regulation: Compliance Method: Stack Test Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 5 -- EVERY 5 YEARS

Frequency Base Date: 12/31/2003 Allowable Emission Comment: gas firing.

> Pollutant: VOC

Sequence Number: 2 Allowable Emission: 3.5

> Unit: 99 -- OTHER (SPECIFY IN COMMENT)

Equivalent (lb/hr): 7.3 Equivalent (tpy): 1.8

Future Effective Date: 12/31/2002

Basis: RULE

Regulation: 62-212,400 Compliance Method: stack test

Compliance Method Code: 1 -- STACK TEST Compliance Test Frequency: 5 -- EVERY 5 YEARS

Frequency Base Date: 12/31/2003

Allowable Emission Comment: oil firing, unit=ppmvw

Visible Emissions Information for EU 27

VE Subtype: **VE10**

Number of VE Tests: 2

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

ESCPSD Basis:

Regulation:

COM Required:

Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Comment:

Continuous Monitor for EU 27

No Continuous Monitor information found for this EU

Emission Unit ID: 28

Status:

Description:

170 MW Simple Cycle Combustion Turbine #2 (3B)

10.01 -- Electric Utilities Type:

EU Classification:

Acid Rain Unit:

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW): 170

> Model Number: PG 7241 FA

Manufacturer:

Ozone SIP Base Year Unit:

Startup Date: 4/30/2003

Long-term Reserve Shutdown Date:

Limited to 500 hr/yr on oil and 500 hr/yr on high power mode (HPM)- 440 Comment:

hrs of power augmentation and 60 hrs high temperature peaking.

Operating Capacity

Dwell Temp (F): Dwell Time (Sec): Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 1600

Incin. Rate (lb/hr): Incin. Rate (ton/day): Throughput:

Throughput Unit:
Production: 170
Production Unit: MW

Operating Capacity Comment:

NATURAL GAS FIRING. WHILE FIRING OIL IS 1811MMBTU/HR; ON HPM IOS

1680MMBTU/HR (GAS).

EU Schedule

Hours per Year: 8760

EU Regulations

Type Regulation
State 62-212.400

Federal 40 CFR 60 SUBPART GG Federal 40 CFR 60 SUBPART A

Control Equipment

Control Device/Method Control Equipment Description

Wet Injection for firing oil 205 Dry low NOX technology

. PSD

ICE Code Baseline Emission (ton/yr)

Baseline Emission (lb/hr)

PM SO2 NO2

CommentPSD-FL-298 (ONLY FOR VOC)

Emission Point Information for EU 28

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 28

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 80 Exit Diameter (ft): 20.5 Exit Temperature (°F): 1116 Exit Velocity (ft/s): 120.7

Actual Volumetric Flow Rate (acfm): 2389462

Water Vapor %: 8.4

Dry Standard Flow Rate: 800000

UTM Zone: 17 UTM North (km): 2992.9 UTM East (km): 543.1

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment: flow for oil at 1,098degF=2,464,273ACFM; HPM 1,130degF=2,426,858

ACFM

Other EUs With This Point in Common NO EUs IN COMMON

Segment(s) Information for EU 28

1 Segment #:

SCC Code: 20100101

Description 1: Internal Combustion Engines

Description 2: **Electric Generation** Description 3: Distillate Oil (Diesel)

Description 4: Turbine

Status:

Unit: 1000 Gallons Distillate Oil (Diesel) Burned

Segment Description:

mmBtu/SCC Unit: 130 Max Hourly Rate: 14 Hourly Rate Limit:

Max Annual Rate: 7000

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit: 0.05

Max Percent Ash:

Comment: limited to 500 hours/year

Segment #:

SCC Code: 20100201

Description 1: **Internal Combustion Engines**

Description 2: **Electric Generation**

Description 3: **Natural Gas** Description 4: Turbine

Status:

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 950 Max Hourly Rate: 1.68

Hourly Rate Limit:

Max Annual Rate: 14752

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash:

Comment:

Pollutant(s) Summary for EU 28

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

> Potential (lb/hr): 65 Potential (tpy): 139.8

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited: Υ

Emission Factor:

```
Emission Factor Unit:
```

Emission Factor Ref: GE 2000 GOLDER

Emission Calculation:

lb/yr based on oil firing(500hr/yr). Tons/yr based on 7760 hr/yr gas firing, Comment:

500hr/yr oil firing and HPM.

NOX -- Nitrogen Oxides Pollutant:

Primary Control: Secondary Control:28

Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr): 320

Potential (tpy): 373.22

Emission Method: 0

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: Y **Emission Factor: Emission Factor Unit: Emission Factor Ref:**

Emission Calculation:

lb/hr based on oil firing (500hr/yr). Tons/yr based on gas firing (7760 hr/yr),oil Comment:

firing and HPM (500hr/yr).

PM -- Particulate Matter - Total Pollutant:

Primary Control:

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL.

Potential (lb/hr): 17 Potential (tpy): 45.6 **Emission Method:**

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited: Υ

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

oil firing. Ton/yr based on gas firing(7760hr/yr), oil firing and HPM (500hr/yr) Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 17 Potential (tpy): 45.6

Emission Method: Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Υ

Emission Factor:

Emission Factor Unit: Emission Factor Ref:

Emission Calculation:

Comment: oil firing. ton/yr based on gas firing(7760 hr/yr), oil firing and HPM (500 lb/yr)

Pollutant: SO2 -- Sulfur Dioxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 103.1 Potential (tpy): 44.9 Emission Method: 5

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Y

Emission Factor:

Emission Factor Unit: 099 -- OTHER (SPECIFY IN COMMENT)

Emission Factor Ref:

Emission Calculation:

Comment: oil firing. tons/yr based on gas firing(7760hr/yr), oil firing and HPM (500hr/yr).

emission factor=1grain S per 100 cf gas.

Pollutant: VOC -- Volatile Organic Compounds

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 7.3 Potential (tpy): 13.1

Emission Method: 5

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Y

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: oil firing. tons/yr based on gas firing (7760 hr/yr),oil firing and HPM (500 hr/yr

Allowable Emissions Information for EU 28

Pollutant: CO

Sequence Number: 1 Allowable Emission: 9

Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 29
Equivalent (tpy): 139.8

Future Effective Date: 12/31/2002 Basis: ESCPSD

Regulation:

Compliance Method: STACK TEST

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003

Allowable Emission Comment: Gas firing base case

Pollutant: CO

Sequence Number: 2 Allowable Emission: 20 Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 65 Equivalent (tpy): 139.8 Future Effective Date: 12/31/2002

Basis: **ESCPSD**

Regulation:

Compliance Method: STACK TEST Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003 Allowable Emission Comment: Oil firing

> Pollutant: CO Sequence Number: 3

Allowable Emission: 15

> 04 -- PARTS PER MILLION DRY GAS VOLUME Unit:

Equivalent (lb/hr): 48 139.8 Equivalent (tpy): Future Effective Date: 12/31/2002

Basis: **ESCPSD**

Regulation:

Compliance Method: Stack test

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003

Allowable Emission Comment: Gas firing high power mode

> NOX <u>Pollutant:</u>

Sequence Number: 1 Allowable Emission: 10.5

34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2 Unit:

Equivalent (lb/hr): Equivalent (tpy): 373.22 Future Effective Date: 12/31/2002 Basis: **ESCPSD**

Regulation:

Compliance Method: Stack test and CEM 30 day rolling average

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

> Frequency Base Date: 9/30/2003

Allowable Emission Comment: Gas firing base case

> Pollutant: NOX

Sequence Number: 2 Allowable Emission: 42

> Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 320 Equivalent (tpy): 373.22 Future Effective Date: 12/31/2002 Basis: **ESCPSD**

Regulation:

Compliance Method: Stack Test and CEM Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003 Allowable Emission Comment: oil firing

> Pollutant: NOX

Sequence Number: 3 Allowable Emission: 15

Unit: 34 -- PARTS PER MILLION DRY GAS VOLUME @ 15% O2

Equivalent (lb/hr): 102
Equivalent (tpy): 373.22
Future Effective Date: 12/31/2002
Basis: ESCPSD

Regulation:

Compliance Method: Stack Test and CEM 24 hour rolling average

Compliance Method Code: 3 -- STACK TEST & CMS

Compliance Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2003

Allowable Emission Comment: Gas firing high power mode

Pollutant: PM

Sequence Number: 1
Allowable Emission: 10

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 10 Equivalent (tpy): 45.6

Future Effective Date:

Basis: ESCPSD

Regulation:

Compliance Method: stack test

Compliance Method Code: 1 -- STACK TEST Compliance Test Frequency: 5 -- EVERY 5 YEARS

Frequency Base Date: 12/31/2003

Allowable Emission Comment: natural gas. tons/yr based on gas firing(8260hr/yr), oil firing (500hr/yr)

Pollutant: PM

Sequence Number: 2 Allowable Emission: 17

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 17
Equivalent (tpy): 45.6

Future Effective Date:

5 1 35 BW

Basis: ESCPSD

Regulation:

Compliance Method: stack test

Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 5 -- EVERY 5 YEARS

Frequency Base Date: 12/31/2003

Allowable Emission Comment: fuel oil. tons/yr based on gas firing (8260hr/yr), oil firing (500 hr/yr).

Pollutant: PM10

Sequence Number: 1
Allowable Emission: 10

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 10 Equivalent (tpy): 45.6

Future Effective Date:

Basis: ESCPSD

Regulation:

Compliance Method: PM STACK TEST
Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: natural gas. tons/yr based on gas firing(8260hr/yr), oil firing (500hr/yr).

Pollutant: **PM10**

```
Sequence Number: 2
Allowable Emission: 17
```

Unit: PH -- POUNDS/HOUR

Equivalent (lb/hr): 17 Equivalent (tpy): 45.6

Future Effective Date:

Basis: ESCPSD

Regulation:

Compliance Method: PM Stack Test
Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: fuel oil. Ton/yr based on gas firing(8260hr/yr), oil firing (500hr/yr)

Pollutant: **SO2**Sequence Number: 1
Allowable Emission: 0.05

Unit: 35 -- PERCENT SULFUR IN FUEL

Equivalent (lb/hr): 103.1 Equivalent (tpy): 24.7

Future Effective Date: 12/31/2002 Basis: ESCPSD

Regulation:

Compliance Method: FUEL ANALYSIS
Compliance Method Code: 4 -- FUEL SAMPLING
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: oil firing. tons/yr based on gas firing (8260 hr/yr), oil firing (500hr/yr).

Pollutant: **SO2**

Sequence Number: 2 Allowable Emission: 2

Unit: 99 -- OTHER (SPECIFY IN COMMENT)

Equivalent (lb/hr): 5.1 Equivalent (tpy): 21.5

Future Effective Date: 12/31/2002

Basis: ESCPSD

Regulation:

Compliance Method: fuel analysis

Compliance Method Code: 4 -- FUEL SAMPLING
Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: natural gas. unit= grains per 100scf of natural gas. tons/yr based on gas

firing (8260 hr/yr), oil firing (500 hr/yr).

Pollutant: VOC

Sequence Number: 1
Allowable Emission: 1.5

Unit: 04 -- PARTS PER MILLION DRY GAS VOLUME

Equivalent (lb/hr): 2.8 Equivalent (tpy): 12

Future Effective Date: 12/31/2002

Basis: RULE

Regulation: 62-212.400
Compliance Method: STACK TEST
Compliance Method Code: 1 -- STACK TEST
Compliance Test Frequency: 5 -- EVERY 5 YEARS

Frequency Base Date: 12/31/2003 Allowable Emission Comment: gas firing.

Pollutant: VOC

Sequence Number: 2

Allowable Emission: 3.5

> 99 -- OTHER (SPECIFY IN COMMENT) Unit:

Equivalent (lb/hr): 7.3 Equivalent (tpy):

Future Effective Date: 12/31/2002

> Basis: RULE

Regulation: 62-212.400 Compliance Method: stack test

Compliance Method Code: 1 -- STACK TEST Compliance Test Frequency: 5 -- EVERY 5 YEARS

Frequency Base Date: 12/31/2003

Allowable Emission Comment: oil firing, unit=ppmvw

Visible Emissions Information for EU 28

VE Subtype: **VE10**

Number of VE Tests: 2

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis: **ESCPSD**

Regulation:

COM Required:

Test Frequency: 11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date: 9/30/2002

Comment:

Continuous Monitor for EU 28

No Continuous Monitor information found for this EU

Emission Unit ID: 29

Status:

Description: 100 MMBTU/HR Natural GAS HEATER #1

Type: 10.01 -- Electric Utilities

EU Classification: R Acid Rain Unit:

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

Model Number:

Manufacturer:

Ozone SIP Base Year Unit:

Startup Date: 4/30/2003

Long-term Reserve Shutdown Date:

Comment: NATURAL GAS BURNING.

Operating Capacity

Dwell Temp (F): Dwell Time (Sec): Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 100

Incin. Rate (lb/hr): Incin. Rate (ton/day): Throughput: Throughput Unit:

Production: **Production Unit:**

Operating Capacity Comment:

EU Schedule

Hours per Year: 8760

EU Regulations

Regulation <u>Type</u> State 62-212,400

Control Equipment

No Control Equipment found for this EU

PSD

ICE Code

Baseline Emission (ton/yr)

Baseline Emission (lb/hr)

PM S₀2 NO₂

CommentPSD-FL-298 (ONLY FOR VOC)

Emission Point Information for EU 29

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #:

V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

Discharge Type: VERTICAL/NEARLY VERTICAL DIRECTION

Height (ft): 30

Exit Diameter (ft): 1.5 Exit Temperature (°F): 713 Exit Velocity (ft/s): 110.7

Actual Volumetric Flow Rate (acfm): 11736

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2992.6

UTM East (km): 543.1

GEP Stack Height (ft): Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUs IN COMMON

Segment(s) Information for EU 29

Segment #: 2

SCC Code: 10100602

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Natural Gas

Description 4: Boilers < 100 Million Btu/hr except Tangential

Status: A

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 1020 Max Hourly Rate: 0.023

Hourly Rate Limit:

Max Annual Rate: 406.7

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S: Percent S Limit: Max Percent Ash: Comment:

Pollutant(s) Summary for EU 29

Pollutant: CO -- Carbon Monoxide

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr): 7.5 Potential (tpy): 32.85 Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Y

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation: (100mmbtu/hr)x(0.075 lb/mmbtu)=7.5 lb/hr; 7.5 lb/hr=32.85ton/yr

Comment: based on 8760 hr/yr

Pollutant: NOX -- Nitrogen Oxides

Primary Control: 0 -- no description

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code: EL Potential (lb/hr): 10

Potential (tpy): 43.8

Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Y

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment: based on 8760 hr/yr

Pollutant: PM -- Particulate Matter - Total

Primary Control: -- no description

Secondary Control: Control Efficiency:

```
Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
      Emission Calculation:
                 Comment:
                  Pollutant:
                               PM10 -- Particulate Matter - PM10
                               -- no description
           Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
      Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               SO2 -- Sulfur Dioxide
                  Pollutant:
                               -- no description
           Primary Control:
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
Estimated Fugitive LL (tpy):
Estimated Fugitive UL (tpy):
          Synthetic Limited:
           Emission Factor:
       Emission Factor Unit:
       Emission Factor Ref:
       Emission Calculation:
                 Comment:
                               VOC -- Volatile Organic Compounds
                  Pollutant:
           Primary Control:
                               -- no description
         Secondary Control:
          Control Efficiency:
 Pollutant Regulatory Code:
           Potential (lb/hr):
             Potential (tpy):
          Emission Method:
```

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Allowable Emissions Information for EU 29

Pollutant: CO

Sequence Number: 1

Allowable Emission: 0.075

> Unit: 01 -- POUNDS PER MILLION BTU HEAT INPUT

Equivalent (lb/hr):

Equivalent (tpy): 32.85

Future Effective Date:

OTHER Basis:

Regulation:

Compliance Method: **Initial Stack Test**

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Basis: PSD-FL-298

> Pollutant: NOX

Sequence Number: 1

Allowable Emission:

Unit: 01 -- POUNDS PER MILLION BTU HEAT INPUT

Equivalent (lb/hr): 10

Equivalent (tpy): 43.8

Future Effective Date: 12/31/2002

> Basis: OTHER

Regulation:

Compliance Method:

1 -- STACK TEST

Compliance Method Code:

Initial Stack Test

Compliance Test Frequency:

0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Basis: PSD-FL-298

Visible Emissions Information for EU 29

VE Subtype: **VE10**

Number of VE Tests:

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis:

ESCPSD

Regulation:

COM Required:

Test Frequency:

11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date:

9/30/2002

Comment:

Continuous Monitor for EU 29

No Continuous Monitor information found for this EU

Emission Unit ID: 30

Status: A

Description: 100 MMBTU/HR Natural GAS HEATER #2

Type: 10.01 -- Electric Utilities

EU Classification: R Acid Rain Unit: N

EU Major Group SIC: 49 -- ELECTRIC, GAS AND SANITARY SERVICES

Generator Rating (MW):

Model Number:

Manufacturer:

Ozone SIP Base Year Unit:

Startup Date: 4/30/2003

Long-term Reserve Shutdown Date:

Comment: NATURAL GAS

Operating Capacity

Dwell Temp (F): Dwell Time (Sec):

Afterburner Temp (F):

Heat Input Rate (mmBTU/hr): 100

Incin. Rate (lb/hr):
Incin. Rate (ton/day):
Throughput:
Throughput Unit:
Production:

Production Unit:

Operating Capacity Comment:

EU Schedule

NO EU Schedule Information found for this EU

EU Regulations

Type Regulation State 62-212.400

Control Equipment

No Control Equipment found for this EU

PSD

ICE Code Baseline Emission (ton/yr)

Baseline Emission (lb/hr)

PM SO2

NO2

CommentPSD-FL-298 (ONLY FOR VOC)

Emission Point Information for EU 30

Type: 1 -- SINGLE POINT SERVING A SINGLE EMISSIONS UNIT

Stack #: 30

Discharge Type: V -- A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A

VERTICAL/NEARLY VERTICAL DIRECTION

http://tlhora6.dep.state.fl.us/arms reports/fac detail/Printer/print page.asp?AIRS ID=0710002&General Inf... 7/9/2004

Height (ft): 30

Exit Diameter (ft): 1.5

Exit Temperature (°F): 713

Exit Velocity (ft/s): 110.7

Actual Volumetric Flow Rate (acfm): 11736

Water Vapor %:

Dry Standard Flow Rate:

UTM Zone: 17

UTM North (km): 2992.6

UTM East (km): 543.1

GEP Stack Height (ft):

Non-Stack Height (ft):

Comment:

Other EUs With This Point in Common

NO EUS IN COMMON

Segment(s) Information for EU 30

Segment #: 1

SCC Code: 10100602

Description 1: **External Combustion Boilers**

Description 2: **Electric Generation**

Description 3: **Natural Gas**

Boilers < 100 Million Btu/hr except Tangential Description 4:

Status:

Unit: Million Cubic Feet Natural Gas Burned

Segment Description:

mmBtu/SCC Unit: 1020 Max Hourly Rate: 0.023°

Hourly Rate Limit:

Max Annual Rate: 406.7

Annual Rate Limit:

Estimated Annual Activity Factor:

Max Percent S:

Percent S Limit:

Max Percent Ash:

Comment:

Pollutant(s) Summary for EU 30

Pollutant: CO -- Carbon Monoxide

Primary Control: -- no description

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr): 7.5 Potential (tpy): 32.85

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Υ

Emission Factor: Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

(100mmbtu/hr)x(0.075 lb/mmbtu)=7.5 lb/hr; 7.5 lb/hr=32.85 ton/yr

Comment: based on 8760 hr/yr Pollutant: <u>NOX</u> -- Nitrogen Oxides Primary Control: 0 -- no description

Secondary Control: Control Efficiency:

Pollutant Regulatory Code: EL

Potential (lb/hr): 10 Potential (tpy): 43.8 Emission Method: 0

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited: Y

Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment: based on 8760 hr/yr

Pollutant: PM -- Particulate Matter - Total

Primary Control: -- no description

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr): Potential (tpy): Emission Method:

Estimated Fugitive LL (tpy): Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy): Synthetic Limited:

Emission Factor: Emission Factor Unit: Emission Factor Ref: Emission Calculation:

Comment:

Pollutant: PM10 -- Particulate Matter - PM10

Primary Control: -- no description

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):
Potential (tpy):

Emission Method: Fugitive II (tpv):

Estimated Fugitive LL (tpy): Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor: Emission Factor Unit:

Emission Factor Onic.
Emission Factor Ref:
Emission Calculation:

Comment:

Pollutant: <u>SO2</u> -- Sulfur Dioxide ry Control: -- no description

Primary Control: Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Pollutant:

VOC -- Volatile Organic Compounds

-- no description

Primary Control:

Secondary Control:

Control Efficiency:

Pollutant Regulatory Code:

Potential (lb/hr):

Potential (tpy):

Emission Method:

Estimated Fugitive LL (tpy):

Estimated Fugitive UL (tpy):

Synthetic Limited:

Emission Factor:

Emission Factor Unit:

Emission Factor Ref:

Emission Calculation:

Comment:

Allowable Emissions Information for EU 30

Pollutant:

Sequence Number:

Allowable Emission:

1

Unit: 01 -- POUNDS PER MILLION BTU HEAT INPUT

Equivalent (lb/hr): 7.5

Equivalent (tpy): 32.85

Future Effective Date:

Basis: **OTHER**

Regulation:

Compliance Method:

Initial Stack Test

Compliance Method Code:

1 -- STACK TEST

Compliance Test Frequency:

0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Basis: PSD-FL-298

> Pollutant: NOX

Sequence Number: 1

Allowable Emission: 0.1

01 -- POUNDS PER MILLION BTU HEAT INPUT Unit:

Equivalent (lb/hr):

Equivalent (tpy): 43.8

Future Effective Date: 12/31/2002

> Basis: OTHER

Regulation:

Compliance Method:

Initial Stack Test

Compliance Method Code: 1 -- STACK TEST

Compliance Test Frequency: 0 -- NONE REQUIRED

Frequency Base Date:

Allowable Emission Comment: Basis: PSD-FL-298

Visible Emissions Information for EU 30

VE Subtype: VE10

Number of VE Tests: 1

Allowable Opacity Exceptional

Condition (%):

Maximum Period of Exceptional

Condition (min/hr):

Basis:

ESCPSD

Regulation:

COM Required:

Test Frequency:

11 -- EACH FFY (1 OCT - 30 SEP)

Frequency Base Date:

9/30/2002

Comment:

Continuous Monitor for EU 30

No Continuous Monitor information found for this EU

END OF REPORT