0970071-004-AV

RELIANT ENERGY OSCEOLA, L.L.C. HOLOPAW, FLORIDA

# TITLE V AIR PERMIT APPLICATION

March 2002

ERM Project No. 47889

RECEIVED

APR 01 2002

BUREAU OF AIR REGULATION



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7300 Carmel Executive Park Suite 200 Charlotte, NC 28226 (704) 541-8345 (704) 541-8416 (Fax)

### RECEIVED

March 29, 2002

Mr. C. H. Fancy, P. E., Chief Bureau of Air Regulation Florida Dept. of Environmental Protection 2600 Blair Stone Road Tallahassee, Florida 32399-2400 APR 01 2002

BUREAU OF AIR REGULATION



Subject:

Title V Air Operation Permit Application

Osceola Power Project

Reliant Energy Osceola, L.L.C. (Reliant Energy)

Holopaw, Florida

RE: DEP File No. 0970071-001-AC

Dear Mr. Fancy:

This Title V application has been prepared on behalf of Reliant Energy Osceola, L.L.C. Construction, startup, and initial compliance testing has been completed on two of the three units at the facility. Two units have been demonstrated to be in compliance with the emissions limits contained in the construction permit and the applicable rules. The third unit is identical to the other two and is substantially complete and testing will be completed on this unit as part of a compliance plan. We therefore submit this request for an operating permit.

The application has maintained the emission unit numbering used in the construction permit with one change. Since the distillate fuel oil tank is an insignificant source of criteria pollutants (VOC), we request that it be changed from an emissions unit to an unregulated or exempt unit. The requirements of 40 CFR 60 Subpart Kb require only that tank records be kept and do not represent substantive emissions limiting standards. It has not been included in this application as an emissions unit in support of an exempt status.

The facility is classified as a Title V source due to the potential to emit more than 100 tons per year of one or more criteria pollutants. As part of the construction permit application process, it has already undergone a BACT analysis and a PSD review. It is also subject to applicable provisions of Title IV, Acid Rain, of the Clean Air Act Amendments of 1990 and we understand that the required Title IV information has already been submitted and approved by the FDEP.

As required in the facility air emissions source construction permit, emissions test data from Units Nos. 1 and 2 were submitted to the FDEP on 12/21/2001. A CEM certification report was also submitted for these two units on 1/22/2002.

Unit 3 was not yet complete when testing and CEM validation was performed on the other units. However, the Title V application must be submitted 90 days prior to the expiration of the construction permit. Based upon a telephone conversation with Bruce Mitchell of FDEP, we are submitting a Title V application for all three units even though Unit 3 has not completed testing. A compliance plan is included in the application to address the need to successfully complete stack testing and CEM validation on Unit 3 once unit startup is complete in order that the unit be in compliance with all construction permit conditions.

Please contact me at 704-541-8345 if you have any questions.

Sincerely,

Stephen L. Alexander, P.E.

# Department of **Environmental Protection**

# DIVISION OF AIR RESOURCES MANAGEMENT APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

#### Identification of Facility Addressed in This Application

1. Facility Owner/Company Name: Reliant Energy Osceola, L.L.C.	040 55	192
2. Site Name : Reliant Energy Osceola, L.L.C.		
3. Facility Identification Number:	0970071	[ ] Unknown
4. Facility Location : Reliant Energy Osceola		
Street Address or Other Locator: City: St. Cloud	5200 W. Holopaw Rd. County: Osceola	Zip Code: 34773
5. Relocatable Facility? [ ] Yes [X] No		6. Existing Permitted Facility? [X] Yes [ ] No
D <sub>M</sub>	1 - 170 m 41 Cm	mb Cyles Caul. d. 7

001 - 170 m w Simple Cyler Combinstion Turbine 002 - 1 003 - 1 004 - 2 No. 2 Fuel Oil Storage Tracks (1.5 magal kach)

I. Part 1 - 1

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

#### Owner/Authorized Representative or Responsible Official

١.	Name and	Title of C	Owner/Autho	rized Repres	entative or R	esponsible	Official:
----	----------	------------	-------------	--------------	---------------	------------	-----------

Name:

Terry E. Gish

Title:

Managing Director, SE Operations

2. Owner or Authorized Representative or Responsible Official Mailing Address:

Organization/Firm:

Reliant Energy Osceola, L.L.C.

Street Address:

7800 South Highway US 1

City: Titusville

FL

State:

Zip Code:

32780

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

Telephone: (321)264-4584

Fax: (321)385-4685

4. Owner/Authorized Representative or Responsible Official Statement :

I, the undersigned, am the owner or authorized representative\* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., 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 units.

JE Jil

3-29-02

Signature

Date

<sup>\*</sup> Attach letter of authorization if not currently on file.

#### **Scope of Application**

Emissions Unit ID	Description of Emissions Unit	Permit Type
001	Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine	AO
002	Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine	AO
003	Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine	AO

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#### **Purpose of Application and Category**

Category I: All Air C	peration Permit Appl	ications Subject to	Processing Under	Chapter 62-213,
F.A.C.				

This Application for Air Permit is submitted to obtain:

- [ ] Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.
- [X] Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number : 0970071-001-AC

[ ] Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed:

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number:

Operation permit to be revised:

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected:

I. Part 4 - 1

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Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit.
Operation permit to be revised :
Reason for revision:
Category II: All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.
This Application for Air Permit is submitted to obtain :
[ ] Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.
Current operation/construction permit number(s):
Renewal air operation permit under Fule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.
Operation permit to be renewed:
[ ] Air operation permit revision for a synthetic non-Title V source.
Operation permit to be revised:
Reason for revision:
Category III: All Air Construction Permit Applications for All Facilities and Emissions Units
This Application for Air Permit is submitted to obtain :

I. Part 4 - 2

[	Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).
	Current operation permit number(s), if any:
[	Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
	Current operation permit number(s):
[	] Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee	
Check one:	
[ ] Attached - Amount : \$0.00 [X] Not Applicable.	
Construction/Modification Information	
1. Description of Proposed Project or Alterations :	_
2. Projected or Actual Date of Commencement of Construction :	
3. Projected Date of Completion of Construction :	
Professional Engineer Certification	
1. Professional Engineer Name: Stephen L. Alexander Registration Number: 38519	
2. Professional Engineer Mailing Address :	_
Organization/Firm: ERMNC Street Address: 7300 Carmel Executive Park City: Charlotte State: NC Zip Code: 28226	
3. Professional Engineer Telephone Numbers :	_

Fax: (704)541-8416

Telephone: (704)541-8345

#### 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 pollutant 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 []] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions 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.

Signature

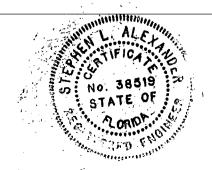
(seal)

Date

I. Part 6 - 1

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Effective: 3-21-96



3/29/02

#### **Application Contact**

1. Name and Title of Application Contact :

Timothy E. McKenzie Name:

Title: Senior Environmental Scientist

2. Application Contact Mailing Address:

Organization/Firm:

Reliant Energy

Street Address:

1001 Broad St.

City:

Johnstown

State:

PA

Zip Code:

15907-1050

3. Application Contact Telephone Numbers:

Telephone: (814)533-8670

Fax: (814)533-8085

#### **Application Comment**

#### II. FACILITY INFORMATION

#### A. GENERAL FACILITY INFORMATION

#### Facility, Location, and Type

1. Facility UTM Coordinates:

Zone:

17

East (km):

490.43

North (km):

3111.31

2. Facility Latitude/Longitude:

Latitude (DD/MM/SS):

28

4. Facility Status

7

44

Longitude (DD/MM/SS):

81

50

6. Facility SIC(s):

5

3. Governmental

Facility Code:

Code: Α

5. Facility Major Group SIC Code:

4911

7. Facility Comment:

3 Intermittent duty units, normally fired by natural gas with fuel oil backup

#### **Facility Contact**

1. Name and Title of Facility Contact:

Amy Deese

Environmental Engineer

2. Facility Contact Mailing Address:

Organization/Firm:

Reliant Energy Indian River, LLC

Street Address:

7800 South Highway US 1

City:

Titusville

State: FL Zip Code: 32780

3. Facility Contact Telephone Numbers:

Telephone:

(321)264-4589

Fax: (321)385-4685

II. Part 1 - 1

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

#### **Facility Regulatory Classifications**

1. Small Business Stationary Source?	N .
2. Title V Source?	Y
3. Synthetic Non-Title V Source?	N
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	Y
5. Synthetic Minor Source of Pollutants Other than HAPs?	N
6. Major Source of Hazardous Air Pollutants (HAPs)?	N
7. Synthetic Minor Source of HAPs?	N
8. One or More Emissions Units Subject to NSPS?	Y
9. One or More Emission Units Subject to NESHAP?	N
10. Title V Source by EPA Designation?	N
11. Facility Regulatory Classifications Comment :	
Facility has already filed Title IV information, had a BACT analysis, and PSD revipermitting.	ew in construction

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#### **B. FACILITY REGULATIONS**

ļ	Rule Applicability Analysis					

II. Part 3a - 1

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#### **B. FACILITY REGULATIONS**

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

40 CFR 60 Subpart Kb

Title V Core List

II. Part 3b - 1

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

#### C. FACILITY POLLUTANTS

#### **Facility Pollutant Information**

1. Pollutant Emitted	2. Pollutant Classification
NOX	A
CO .	A
VOC	В
SO2	A
РМ	В
PM10	В

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Facility Pollutant Information	PollutantI	
1. Pollutant Emitted: NOX		
2. Requested Emissions Cap :	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		

II. Part 4b - 1

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

Facility Pollutant Information	Pollutant2	
1. Pollutant Emitted: CO		
2. Requested Emissions Cap:		
·	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		

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Facility Pollutant Information	Pollutant3	
1. Pollutant Emitted:	VOC	
2. Requested Emissions Cap :	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code	:	
4. Facility Pollutant Comment:		•

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

Facility Pollutant Information	Pollutant4	
1. Pollutant Emitted: SO2		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		
		,

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

Facility Pollutant Information	Pollutant5	
1. Pollutant Emitted : PM		
2. Requested Emissions Cap:	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment:		

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

Facility Pollutant Information	Pollutant 6	
1. Pollutant Emitted: P	M10	-
2. Requested Emissions Cap :	(lbs/hour)	(tons/year)
3. Basis for Emissions Cap Code:	٠.	
4. Facility Pollutant Comment:		
	-	

II. Part 4b - 6

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#### D. FACILITY SUPPLEMENTAL INFORMATION

#### **Supplemental Requirements for All Applications**

1. Area Map Showing Facility Location:	Figure1
2. Facility Plot Plan :	Figure 2
3. Process Flow Diagram(s):	Figure 3
4. Precautions to Prevent Emissions of Unconfined Particulate Matter:	NA
5. Fugitive Emissions Identification:	NA
6. Supplemental Information for Construction Permit Applic	NA

#### Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt	Attachment 6
8. List of Equipment/Activities Regulated under	Onsite
9. Alternative Methods of Operation:	NA
10. Alternative Modes of Operation (Emissions	NA
11. Identification of Additional Applicable	NA
12. Compliance Assurance Monitoring	NA
13. Risk Management Plan Verification:	NA
14. Compliance Report and Plan:	Attachment 7
15. Compliance Certification (Hard-copy Requir	Attachment 8

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

#### III. EMISSIONS UNIT INFORMATION

## A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissic	ons Unit Information Section1
Unit 1 -	170 MW Nominal Simple Cycle Combustion Turbine
Type of	Emissions Unit Addressed in This Section
1. Regu	ulated or Unregulated Emissions Unit? Check one:
[ X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[ ]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Singl	le Process, Group of Processes, or Fugitive Only? Check one :
[ X]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[ ]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[ ]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

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

#### III. EMISSIONS UNIT INFORMATION

# A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissic	ons Unit Information Section 2
Unit 2 -	170 MW Nominal Simple Cycle Combustion Turbine
Type of	f Emissions Unit Addressed in This Section
1. Regi	ulated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[ X]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[ ]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[ ]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 2

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#### III. EMISSIONS UNIT INFORMATION

## A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

<b>Emissi</b>	ons Unit Information Section3
Unit 3 -	170 MW Nominal Simple Cycle Combustion Turbine
Type of	f Emissions Unit Addressed in This Section
1. Regi	ulated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[ ]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[ X]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[ ]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[ ]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 3

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Emissions	Unit	Information	Section	1

### B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

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

Description of Emissions Unit Addressed in This Section :     Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine					
2. Emissions Unit Id	entification lesponding I		•	nknown	
3. Emissions Unit St Code:	tatus A	4. Acid Rain [X] Yes	_	5. Emissions Unit Major Group SIC Code:	49
6. Emissions Unit Co GE PG7241 FA cor		oine firing both r	natural gas and lov	w sulfur distillate fuel oil.	

III. Part 2 - 1

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	<b>Emissions</b>	Unit Information Section	2 .
--	------------------	--------------------------	-----

### B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

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

1. Description of Emissions Univ	t Addressed in This Section:			
Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine				
Emissions Unit Identification Number: 002     [ ] No Corresponding ID				
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [X] Yes [ ] No	5. Emissions Unit Major Group SIC Code: 49		
6. Emissions Unit Comment :  GE PG7241 FA combustion tur	bine firing both natural gas and lo	w sulfur distillate fuel oil.		
•				

III. Part 2 - 2

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### B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

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

1. Description of Emissions Unit Addressed in This Section :				
Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine				
2. Emissions Unit Identification Number: 003  [ ] No Corresponding ID [ ] Unknown				
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [X] Yes [] No	5. Emissions Unit Major Group SIC Code: 49		
6. Emissions Unit Comment:  GE PG7241 FA combustion turbine firing both natural gas and low sulfur distillate fuel oil.				

III. Part 2 - 3

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Emissions Unit Information Section 1		
Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine		
Emissions Unit Control Equipment 1		
Description:     Low NOx Burner Technology (two-stage combustor): For natural gas firing, dry low NOx burner technology is used to control NOx emissions.		
2. Control Device or Method Code: 25		

Emissions Unit Information Section 1
Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine
Emissions Unit Control Equipment 2
Water injection: Used during fuel oil firing to limit NOx emissions by lowering the combustion temperature through the use of water injection.
2. Control Device or Method Code: 28

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Emissions Unit Information Section
Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine
Emissions Unit Control Equipment - 3
1. Description: Use of low sulfur fuel oil (0.05 percent by weight) and the use of natural gas (2 gr S/100 cubic feet) to control emissions of sulfur oxides.
2. Control Device or Method Code: 99

Emissions Unit Information Section 2
Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine
Emissions Unit Control Equipment 1
Description:     Low NOx Burner Technology (two-stage combustor): For natural gas firing, dry low NOx burner technology is used to control NOx emissions.
2. Control Device or Method Code: 25

<b>Emissions Unit Information Section</b>	2
Unit 2 - 170 MW Nominal Simple Cycle Con	nbustion Turbine
Emissions Unit Control Equipment	2
1. Description:	
Water injection: Used during fuel oil firi temperature through the use of water inje	ng to limit NOx emissions by lowering the combustion ction.
2 Control Device or Method Code:	28

<b>Emissions Unit Information Section</b>	2
Unit 2 - 170 MW Nominal Simple Cycle Cor	mbustion Turbine
Emissions Unit Control Equipment	3
Description:     Use of low sulfur fuel oil (0.05 percent be to control emissions of sulfur oxides.	y weight) and the use of natural gas (2 gr S/100 cubic feet)
2. Control Device or Method Code:	99

III. Part 3 -

6

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<b>Emissions Unit Information Section</b>	3
Unit 3 - 170 MW Nominal Simple Cycle Cor	nbustion Turbine

**Emissions Unit Control Equipment** -

1. Description: Low NOx Burner Technology (two-stage combustor): For natural gas firing, dry low NOx burner technology is used to control NOx emissions.

2. Control Device or Method Code:

III. Part 3 -

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**Emissions Unit Information Section** 

Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine

Emissions Unit Control Equipment 2

1. Description:

Water injection: Used during fuel oil firing to limit NOx emissions by lowering the combustion temperature through the use of water injection.

2. Control Device or Method Code:

28

III. Part 3 -

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<b>Emissions Unit Information Section</b>	3
Unit 3 - 170 MW Nominal Simple Cycle Co	mbustion Turbine
Emissions Unit Control Equipment	3
Description:     Use of low sulfur fuel oil (0.05 percent by control emissions of sulfur oxides.)	by weight) and the use of natural gas (2 gr S/100 cubic feet)

2. Control Device or Method Code: 99

III. Part 3 -

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

# C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section Unit 1 - 170 MW Nominal Simple Cycle Combus	ion Turbine	
Emissions Unit Details		
1. Initial Startup Date :	5-Oct-2001	
2. Long-term Reserve Shutdown Date :		
3. Package Unit: Manufacturer: General Electric	Model Numb	er: PG7241(FA)
4. Generator Nameplate Rating: 170	MW	
5. Incinerator Information:  Dwell Temperature:  Dwell Time: Incinerator Afterburner Temperature:  Emissions Unit Operating Capacity	Degrees Fa Seconds Degrees Fa	
1. Maximum Heat Input Rate: 1942	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate :		
5. Operating Capacity Comment: Natural Gas Firing @ 19F, 60% rel. humidity, = 1709.2 MBTU/hr (LHV) Fuel Oil Firing @ 19F, 60% rel. humidity, 14. = 1,942.4 MBTU/hr (LHV)	•	

#### **Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule :
24 hours/day 7 days/week

III. Part 4 - 1

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52 weeks/year

3,000 hours/year

III. Part 4 - 2

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## C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

<b>Emissions Unit Information Section</b>		2	
Unit 2 - 170 MW Nominal Simple Cycle C	Con	nbustion Turbin	e

#### **Emissions Unit Details**

1. Initial Startup Date:	18-Oct-2001
2. Long-term Reserve Shutdown Date :	
3. Package Unit : Manufacturer : General Electric	Model Number: PG7241(FA)
4. Generator Nameplate Rating: 170	MW
5. Incinerator Information :  Dwell Temperature :  Dwell Time :  Incinerator Afterburner Temperature :	Degrees Fahrenheit Seconds Degrees Fahrenheit

### **Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate :	1942	mmBtu/hr	
2. Maximum Incinerator Rate:		lb/hr	tons/day
3. Maximum Process or Throughpu	it Rate:		
4. Maximum Production Rate:			,
5. Operating Capacity Comment: Natural Gas Firing @ 19F, 60% rel = 1709.2 MBTU/hr (LHV) Fuel Oil Firing @ 19F, 60% rel. hu = 1,942.4 MBTU/hr (LHV)	•	•	

#### **Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule :

24 hours/day

7 days/week

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52 weeks/year

3,000 hours/year

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

## C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

<b>Emissions</b>	Unit Inform	ation Section	ı	3	
Unit 3 - 170	MW Nomina	l Simple Cycle	Comb	oustion '	 Turbine

#### **Emissions Unit Details**

1. Initial Startup Date:	06-Apr-2002	
2. Long-term Reserve Shutdown Date:		
Package Unit :     Manufacturer : General Electric	Model Number: PG7241(FA)	1
4. Generator Nameplate Rating: 170	MW	
5. Incinerator Information :  Dwell Temperature :  Dwell Time :	Degrees Fahrenheit Seconds	
Incinerator Afterburner Temperature :	Degrees Fahrenheit	

#### **Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	1942	mmBtu/hr	
2. Maximum Incinerator Rate :	· · · · · · · · · · · · · · · · · · ·	lb/hr	tons/day
3. Maximum Process or Throughpu	ıt Rate :		
4. Maximum Production Rate :			
5. Operating Capacity Comment: Natural Gas Firing @ 19F, 60% rel = 1709.2 MBTU/hr (LHV) Fuel Oil Firing @ 19F, 60% rel. hu = 1,942.4 MBTU/hr (LHV) Start 4/6/2002	•		

#### **Emissions Unit Operating Schedule**

Requested Maximum Operating Schedule:	

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24 hours/day 7 days/week 52 weeks/year 3,000 hours/year

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

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

Emissions Unit Information Section - 1
Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine
Rule Applicability Analysis
·

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

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

Emissions Unit Information Section -	2	·	
Unit 2 - 170 MW Nominal Simple Cycle Com	bustion Turbine		
Rule Applicability Analysis			

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

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

]	Emissions Unit Information Section - 3 Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine			
]	ule Applicability Analysis			
Г	• • •			
	·			

III. Part 6a - 3

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

Emissions Unit Information Section 1
Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine

### List of Applicable Regulations

40 CFR 60 Subpart GG Except as Provided in Const. Permit

III. Part 6b - 1

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

Emissions Unit Information Section 2 Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine

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

40 CFR 60 Subpart GG Except as Provided in Const. Permit

III. Part 6b - 2

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

Emissions Unit Information Section 3 Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine

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

40 CFR 60 Subpart GG Except as Provided in Const. Permit

III. Part 6b - 3

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### E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section1	
Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine	
Emission Point Description and Type:	
1. Identification of Point on Plot Plan or Flow Diagram: Emission	Point No. 1
2. Emission Point Type Code :	
3. Descriptions of Emission Points Comprising this Emissions Unit for (limit to 100 characters per point)	VE Tracking:
4. ID Numbers or Descriptions of Emission Units with this Emission Po	oint in Common :
5. Discharge Type Code : V	
6. Stack Height: 75	feet
7. Exit Diameter: 18.0	feet
8. Exit Temperature: 999	°F
9. Actual Volumetric Flow Rate : 2400000	acfm
10. Percent Water Vapor: 0.00	%
11. Maximum Dry Standard Flow Rate: 0	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates :	
Zone: 0 East (km): 0.000 North (	(km): 0.000
14. Emission Point Comment :	

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

### E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section2			
Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine			
Emission Point Description and Type:		_	
1. Identification of Point on Plot Plan or Flow Diagram :	Emission Po	int No. 2	
2. Emission Point Type Code: 1			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: (limit to 100 characters per point)			
4. ID Numbers or Descriptions of Emission Units with this	Emission Poin	at in Common :	
5. Discharge Type Code:	V		
6. Stack Height:	75	feet	
7. Exit Diameter :	18.0	feet	
8. Exit Temperature :	999	°F	
9. Actual Volumetric Flow Rate :	2400000	acfm	
10. Percent Water Vapor :	0.00	%	
11. Maximum Dry Standard Flow Rate :	0	dscfm	
12. Nonstack Emission Point Height:	0	feet	
13. Emission Point UTM Coordinates:			
Zone: 0 East (km): 0.000	North (kr	m): 0.000	
14. Emission Point Comment:  Actual exit temperature is typically 1082 deg F, ELSA does not allow 4 digit exit temperatures, however.			

III. Part 7a - 2

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

#### E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 3		·	
Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine			
Emission Point Description and Type:			
1. Identification of Point on Plot Plan or Flow Diagram :	Emission Poi	int No. 3	
2. Emission Point Type Code:			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: (limit to 100 characters per point)			
4. ID Numbers or Descriptions of Emission Units with this	Emission Poin	t in Common :	
5. Discharge Type Code :	V		
6. Stack Height:	75	feet	
7. Exit Diameter :	18.0	feet	
8. Exit Temperature :	999	°F	
9. Actual Volumetric Flow Rate:	2400000	acfm	
10. Percent Water Vapor:	0.00	%	
11. Maximum Dry Standard Flow Rate:	0	dscfm	
12. Nonstack Emission Point Height :	0	feet	
13. Emission Point UTM Coordinates:			
Zone: 0 East (km): 0.000	North (kr	n): 0.000	
14. Emission Point Comment:  Actual exit temperature is typically 1082 deg F, ELSA does not allow 4 digit exit temperatures, however.			

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

Emissions Unit Information Section 1			
Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine  Segment Description and Rate: Segment 1			
			1. Segment Description (Process/Fuel Type and
Combustion Turbine-Natural Gas	·		
2. Source Classification Code (SCC): 20100201			
3. SCC Units: Million Cubic Feet Burned (all gaseous fuels)			
4. Maximum Hourly Rate: 1.80	5. Maximum Annual Rate: 5,411.84		
6. Estimated Annual Activity Factor:			
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:		
9. Million Btu per SCC Unit: 947			
10. Segment Comment :			
Sulfur content of natural gas limited to 2 gr S/10 Specific Condition 18	00 cubic feet in Construction Permit 0970071-001-AC,		

III. Part 8 - 1

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

Emissions Unit Information Section 1			
Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine			
Segment Description and Rate: Segment 2			
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):			
Combustion Turbine-Distillate Oil			
2. Source Classification Code (SCC): 20100101			
3. SCC Units: Thousand Gallons Burned (all liquid fuels)			
4. Maximum Hourly Rate: 15.06 5. Maximum Annual Rate: 11,295.00			
6. Estimated Annual Activity Factor:			
7. Maximum Percent Sulfur: 0.05 8. Maximum Percent Ash:			
9. Million Btu per SCC Unit: 129			
10. Segment Comment :			

III. Part 8 - 2

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

Emissions Unit Information Section 2			
Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine			
Segment Description and Rate: Segment 1			
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):			
Combustion Turbine-Natural Gas			
2. Source Classification Code (SCC): 20100201			
3. SCC Units: Million Cubic Feet Burned (all gaseous fuels)			
4. Maximum Hourly Rate: 1.80 5. Maximum Annual Rate: 5,411.84			
6. Estimated Annual Activity Factor:			
7. Maximum Percent Sulfur: 8. Maximum Percent Ash:			
9. Million Btu per SCC Unit: 947			
10. Segment Comment:			
Sulfur content of natural gas limited to 2 gr S/100 cubic feet in Construction Permit 0970071-001-AC, Specific Condition 18			

III. Part 8 - 3

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

Emissions Unit Information Section 2			
Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine			
Segment Description and Rate: Segment 2			
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):			
Combustion Turbine-Distillate Oil			
2. Source Classification Code (SCC): 20100101			
3. SCC Units: Thousand Gallons Burned (all liquid fuels)			
4. Maximum Hourly Rate: 15.06 5. Maximum Annual Rate: 11,295.00			
6. Estimated Annual Activity Factor:			
7. Maximum Percent Sulfur: 0.05 8. Maximum Percent Ash:			
9. Million Btu per SCC Unit: 129			
10. Segment Comment :			

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

Emissions Unit Information Section 3			
Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine			
Segment Description and Rate: Segment	1		
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):			
Combustion Turbine-Natural Gas			
2. Source Classification Code (SCC): 20100201			
3. SCC Units: Million Cubic Feet Burned (all gaseous fuels)			
4. Maximum Hourly Rate: 1.80	5. Maximum Annual Rate :	5,411.84	
6. Estimated Annual Activity Factor:			
7. Maximum Percent Sulfur :	8. Maximum Percent Ash:	,	
9. Million Btu per SCC Unit: 947			
10. Segment Comment:			
Sulfur content of natural gas limited to 2 gr S/100 cubic feet in Construction Permit 0970071-001-AC, Specific Condition 18			

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DEP Form No. 62-210.900(1) - Form Effective : 3-21-96

Emissions Unit Information Section 3			
Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine			
Segment Description and Rate: Segment 2			
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):			
Combustion Turbine-Distillate Oil			
2. Source Classification Code (SCC): 20100101			
3. SCC Units: Thousand Gallons Burned (all liquid fuels)			
4. Maximum Hourly Rate: 15.06 5. Maximum Annual Rate: 11,295.00			
6. Estimated Annual Activity Factor:			
7. Maximum Percent Sulfur: 0.05 8. Maximum Percent Ash:			
9. Million Btu per SCC Unit: 129			
10. Segment Comment :			

III. Part 8 - 6

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

## G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section - 1

Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - NOX	025	028	EL
2 - CO			EL
3 - VOC			EL .
4 - SO2			EL
5 - PM			EL
6 - PM10			EL

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

# G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section - 2

Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine

1. Pollutant Emitted	Primary Control     Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code	
1 - NOX	025	028	EL	
2 - CO		_	EL	
3 - VOC			EL	
4 - SO2			EL	
5 - PM			EL	
6 - PM10		·	EL	

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

# G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section \_\_\_\_ 3
Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
		,	
1 - NOX	025	028	EL
2 - CO			EL
3 - VOC			EL
4 - SO2		,	EL
5 - PM			EL
6 - PM10			EL

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

Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine	
Pollutant Potential/Estimated Emissions: Pollutant1	
1. Pollutant Emitted: NOX	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions: 323.0000000 lb/hour	90.0000000 tons/year
4. Synthetically Limited?  [X ] Yes [ ] No	,
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor Units Reference Manufacturer's Data	
7. Emissions Method Code: 0	
8. Calculations of Emissions:	
See Attachment 5	
9. Pollutant Potential/Estimated Emissions Comment:	
323 LBS/HR ON OIL, 60 LB/HR ON NATURAL GAS AS DESCRIBED PERMIT 0970071-001-AC	IN CONSTRUCTION

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

Emissions Unit Information Section 1 Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine	
Pollutant Potential/Estimated Emissions: Pollutant 2	
1. Pollutant Emitted: CO	
2. Total Percent Efficiency of Control:  %	
3. Potential Emissions: 70.0000000 lb/hour	54.3000000 tons/year
4. Synthetically Limited? [X ] Yes [ ] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference VENDOR	
7. Emissions Method Code: 0	
8. Calculations of Emissions :	
SEE ATTACHMENT 5	
9. Pollutant Potential/Estimated Emissions Comment:	
CO LIMIT IS 36.2 LB/HR ON NATURAL GAS, 70 LB/HR ON FUEL OI MAX ON NATURAL GAS AND 750 HRS PER YEAR ON OIL.	L. 3000 HRS PER YEAR

III. Part 9b - 2

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

Emissions Unit Information Section1 Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine				
<u>Po</u>	Ilutant Potential/Estimated Emissions: Pollutar	t3	_	
1.	Pollutant Emitted: VOC			
2.	Total Percent Efficiency of Control:	%		
3.	Potential Emissions: 8.0000000 lb/hour	_		4.5000000 tons/year
4.	Synthetically Limited? [X ] Yes [ ] No			
5.	Range of Estimated Fugitive/Other Emissions:		to	tons/year
6.	Emissions Factor Reference VENDOR	J <b>nit</b> s		
7.	Emissions Method Code:	·.		
8.	Calculations of Emissions:			
	SEE ATTACHMENT 5			
9.	Pollutant Potential/Estimated Emissions Comment :			
	8 LBS/HR ON OIL,3 LB/HR ON NATURAL GAS AS PERMIT 0970071-001-AC	DESCRIBI	ED IN C	ONSTRUCTION .

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

Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine				
Pollutant Potential/Estimated Emissions: Pollutant 4				
1. Pollutant Emitted: SO2				
2. Total Percent Efficiency of Control: %				
3. Potential Emissions : 104.3000000 lb/hour	40.3500000 tons/year			
4. Synthetically Limited? [X ] Yes [ ] No				
5. Range of Estimated Fugitive/Other Emissions: to	tons/year			
6. Emissions Factor Units Reference				
7. Emissions Method Code :				
8. Calculations of Emissions:				
SEE ATTCHMENT 5				
9. Pollutant Potential/Estimated Emissions Comment :				
Specified in Construction permit # 0970071-001-AC; See Attachment 5, Pa	age 5-3			

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

Emissions Unit Information Section 1 Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine				
Pollutant Potential/Estimated Emissions: Pollutant	5			
1. Pollutant Emitted: PM				
2. Total Percent Efficiency of Control:	%			
3. Potential Emissions:  34.0000000 lb/hour		33.0000000 tons/year		
4. Synthetically Limited?  [X ] Yes [ ] No				
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year		
6. Emissions Factor Unit Reference	s			
7. Emissions Method Code: 0				
8. Calculations of Emissions:	_			
SEE ATTACHMENT 5				
9. Pollutant Potential/Estimated Emissions Comment :				
Specified in Construction permit # 0970071-001-AC; See A	Attachment 5, P	age 5-3		

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Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine					
Pollutant Potential/Estimated Emissions	: Pollutant	6			
1. Pollutant Emitted: PM10					
2. Total Percent Efficiency of Control:		%			
3. Potential Emissions : 34.0000000	lb/hour		33.000000	0 tons/year	
4. Synthetically Limited? [X ] Yes [ ] No				٠	
5. Range of Estimated Fugitive/Other Emi	ssions:	to	)	tons/year	
6. Emissions Factor Reference	Uni	ts			
7. Emissions Method Code :					
8. Calculations of Emissions :					
SEE ATTACHMENT 5					
9. Pollutant Potential/Estimated Emissions	s Comment :				
Specified in Construction permit # 09700	71-001-AC; See .	Attachment 5	, Page 5-3		

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

Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine		
Pollutant Potential/Estimated Emissions: Pollutant 1	_	
1. Pollutant Emitted: NOX		
2. Total Percent Efficiency of Control: %		
3. Potential Emissions : 323.0000000 lb/hour		90.0000000 tons/year
4. Synthetically Limited?  [X ] Yes [ ] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Units Reference Manufacturer's Data		
7. Emissions Method Code: 0		
8. Calculations of Emissions :		
See Attachment 5		,
9. Pollutant Potential/Estimated Emissions Comment :		
323 LBS/HR ON OIL, 60 LB/HR ON NATURAL GAS AS DESCR PERMIT 0970071-001-AC	RIBED IN	CONSTRUCTION

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2

Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine	
Pollutant Potential/Estimated Emissions: Pollutant 2	
1. Pollutant Emitted: CO	
2. Total Percent Efficiency of Control:  %	
3. Potential Emissions: 70.0000000 lb/hour	54.3000000 tons/year
4. Synthetically Limited?  [X ] Yes [ ] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference VENDOR	-
7. Emissions Method Code: 0	
8. Calculations of Emissions :	
SEE ATTACHMENT 5	
9. Pollutant Potential/Estimated Emissions Comment:	
CO LIMIT IS 36.2 LB/HR ON NATURAL GAS, 70 LB/HR ON FUEL OI MAX ON NATURAL GAS AND 750 HRS PER YEAR ON OIL. Specifie 0970071-001-AC; See Attachment 5.	

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**Emissions Unit Information Section** 

Emissions Unit Information Section 2 Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine	
Pollutant Potential/Estimated Emissions: Pollutant 3	
1. Pollutant Emitted: VOC	
2. Total Percent Efficiency of Control:  %	
3. Potential Emissions: 8.0000000 lb/hour	4.5000000 tons/year
4. Synthetically Limited?  [X ] Yes [ ] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference VENDOR	
7. Emissions Method Code :	
8. Calculations of Emissions :	
SEE ATTACHMENT 5	
9. Pollutant Potential/Estimated Emissions Comment:	
8 LBS/HR ON OIL,3 LB/HR ON NATURAL GAS AS DESCRIBED IN COPERMIT 0970071-001-AC	ONSTRUCTION

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

Emissions Unit Information Section 2 Unit 2 - 170 MW Nominal Simple Cycle Combustion Turb	oine		
Pollutant Potential/Estimated Emissions: Polluta	ant <u>4</u>	_	
1. Pollutant Emitted: SO2			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions :			
104.3000000 lb/hour		4	40.3500000 tons/year
4. Synthetically Limited?  [X ] Yes [ ] No			
5. Range of Estimated Fugitive/Other Emissions:			
		to	tons/year
6. Emissions Factor Reference	Units		
7. Emissions Method Code :	, .		
8. Calculations of Emissions :			·
SEE ATTCHMENT 5			
9. Pollutant Potential/Estimated Emissions Comment	:		
Specified in Construction permit # 0970071-001-AC;	See Attachme	ent 5, Pag	e 5-3

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

Unit 2 - 170 MW Nominal Simple Cycle Com	ibustion Turbine		
Pollutant Potential/Estimated Emissions	s: Pollutant	5	
1. Pollutant Emitted: PM			
2. Total Percent Efficiency of Control:	%	)	
3. Potential Emissions: 34.0000000	lb/hour	33	3.0000000 tons/year
4. Synthetically Limited?  [X ] Yes [ ] No			
5. Range of Estimated Fugitive/Other Em	issions:	to	tons/year
6. Emissions Factor Reference	Units		
7. Emissions Method Code: 0			
8. Calculations of Emissions :		·	
SEE ATTACHMENT 5			
9. Pollutant Potential/Estimated Emission	s Comment:		
Specified in Construction permit # 09700	071-001-AC; See Atta	chment 5, Page	5-3

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**Emissions Unit Information Section** 

Emissions Unit Information Section 2 Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine	
Pollutant Potential/Estimated Emissions: Pollutant	6
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:  34.0000000 lb/hour	33.0000000 tons/year
4. Synthetically Limited? [X] Yes [] No	
5. Range of Estimated Fugitive/Other Emissions:	to tons/year
6. Emissions Factor Unit Reference	ts
7. Emissions Method Code :	
8. Calculations of Emissions :  SEE ATTACHMENT 5	
9. Pollutant Potential/Estimated Emissions Comment:  Specified in Construction permit # 0970071-001-AC; See A	Attachment 5, Page 5-3

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Emissions Unit Information Section 3 Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: NOX	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions : 323.0000000 lb/hour	90.0000000 tons/year
4. Synthetically Limited?  [X ] Yes [ ] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference Manufacturer's Data	
7. Emissions Method Code: 0	
8. Calculations of Emissions :	
See Attachment 5	
9. Pollutant Potential/Estimated Emissions Comment:	
323 LBS/HR ON OIL, 60 LB/HR ON NATURAL GAS AS DESCRIBED PERMIT 0970071-001-AC	IN CONSTRUCTION
I	

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

Emissions Unit Information Section Unit 3 - 170 MW Nominal Simple Cycle Combust	3 tion Turbine			
Pollutant Potential/Estimated Emissions:	Pollutant	2		
1. Pollutant Emitted: CO				
2. Total Percent Efficiency of Control:		%		
3. Potential Emissions: 70.0000000 lb/	/hour		54.3000000 tons/ye	ear
4. Synthetically Limited? [X ] Yes [ ] No			,	
5. Range of Estimated Fugitive/Other Emission	ons:	to	tons/y	ear
6. Emissions Factor Reference VENDOR	Uni	ts		
7. Emissions Method Code: 0				
8. Calculations of Emissions :				
SEE ATTACHMENT 5				
9. Pollutant Potential/Estimated Emissions Co	omment :			
CO LIMIT IS 36.2 LB/HR ON NATURAL G MAX ON NATURAL GAS AND 750 HRS P 0970071-001-AC; See Attachment 5.				1

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Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbin	ne	
Pollutant Potential/Estimated Emissions: Pollutar	t <u>3</u>	
1. Pollutant Emitted: VOC		,
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions : 8.0000000 lb/hour		4.5000000 tons/year
4. Synthetically Limited?  [X ] Yes [ ] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Reference VENDOR	Jnits	
7. Emissions Method Code:		
8. Calculations of Emissions :	C	
SEE ATTACHMENT 5		
9. Pollutant Potential/Estimated Emissions Comment :		
8 LBS/HR ON OIL,3 LB/HR ON NATURAL GAS AS PERMIT 0970071-001-AC	DESCRIBED IN (	CONSTRUCTION

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Emissions Unit Information Section Unit 3 - 170 MW Nominal Simple Cycle Combustic  Pollutant Potential/Estimated Emissions:	on Turbine  Pollutant 4	_	
1. Pollutant Emitted: SO2			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions : 104.3000000 lb/h	our	40.3	500000 tons/year
4. Synthetically Limited? [X] Yes [ ] No			
5. Range of Estimated Fugitive/Other Emission	ns:	to	tons/year
6. Emissions Factor Reference	Units	•	
7. Emissions Method Code :	٠٠.		
8. Calculations of Emissions : SEE ATTCHMENT 5			
9. Pollutant Potential/Estimated Emissions Con Specified in Construction permit # 0970071-00		nent 5, Page 5-	3

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

Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine	
Pollutant Potential/Estimated Emissions: Pollutant 5	
1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions : 34.0000000 lb/hour	33.0000000 tons/year
4. Synthetically Limited?  [X ] Yes [ ] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units Reference	
7. Emissions Method Code: 0	:
8. Calculations of Emissions :	
SEE ATTACHMENT 5	
9. Pollutant Potential/Estimated Emissions Comment:	
Specified in Construction permit # 0970071-001-AC; See Attachment 5, P	Page 5-3

III. Part 9b - 17

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

Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine		•
Pollutant Potential/Estimated Emissions: Pollutant 6	-	
1. Pollutant Emitted: PM10		
2. Total Percent Efficiency of Control: %		
3. Potential Emissions : 34.0000000 lb/hour	33.0	0000000 tons/year
4. Synthetically Limited? [X] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Units Reference		
7. Emissions Method Code :		
8. Calculations of Emissions :		
SEE ATTACHMENT 5		
9. Pollutant Potential/Estimated Emissions Comment:		
Specified in Construction permit # 0970071-001-AC; See Attachme	nt 5, Page 5	-3

III. Part 9b - 18

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

<b>Emissions Unit Information</b> Unit 1 - 170 MW Nominal Si	_	1 ombustion Turbine	•	
Pollutant Information Section	on <u>1</u>	-		
Allowable Emissions	1			٠
1. Basis for Allowable Emiss	sions Code :	ОТНЕ	ER	
2. Future Effective Date of A	Allowable Emi	issions :	·	
3. Requested Allowable Emi	ssions and Ur	nits :		
4. Equivalent Allowable Emi	issions :			
	60.00	lb/hour	90.00	tons/year
5. Method of Compliance :				
CEM			•	
6. Pollutant Allowable Emiss		·	-	·

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

Emissions Unit Information Section 1 Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine	
Pollutant Information Section 2_	
Allowable Emissions 1	
1. Basis for Allowable Emissions Code : RULE	
2. Future Effective Date of Allowable Emissions :	
3. Requested Allowable Emissions and Units :	
4. Equivalent Allowable Emissions :	
70.00 lb/hour 66.98	tons/year
5. Method of Compliance :	
ANNUAL METHOD 10	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Methods)  Specified in Construction permit # 0970071-001-AC; See Attachment 5, Page 5-	

Emissions Unit Information Unit 1 - 170 MW Nominal Si		1 Combustion Turbine	e	
			•	
Pollutant Information Section	on <u>3</u>	_		
Allowable Emissions	1			
1. Basis for Allowable Emiss	sions Code :	RULE	3	
2. Future Effective Date of A		issions :		
3. Requested Allowable Emi	ssions and Ui	nits :		
4. Equivalent Allowable Emi	issions :			
	8.00	lb/hour	4.50	tons/year
5. Method of Compliance :			· · · · · · · · · · · · · · · · · · ·	
INITIAL STACK TEST			•	
6. Pollutant Allowable Emiss	sions Comme	nt (Desc. of Relate	ed Operating M	ethod/Mode):
Specified in Construction pe	rmit # 097007	'1-001-AC; See Atta	chment 5, Page	5-3

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Emissions Unit Information Section Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine
Pollutant Information Section 4
Allowable Emissions 1
1. Basis for Allowable Emissions Code : RULE
2. Future Effective Date of Allowable Emissions :
3. Requested Allowable Emissions and Units:
4. Equivalent Allowable Emissions :
104.30 lb/hour 39.11 tons/year
5. Method of Compliance :
FUEL SULFUR/HOURS LIMITS; SEE CONST. PER. COND. #31
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :
104.3 LBS/HR ON OIL, 1.1 LB/HR ON NATURAL GAS AS DESCRIBED IN CONSTRUCTION PERMIT 0970071-001-AC

	Imissions Unit Information Section 1 Init 1 - 170 MW Nominal Simple Cycle Comb	ustion Turbine		
Po	ollutant Information Section 5			,
Al	llowable Emissions 1			
1.	. Basis for Allowable Emissions Code :	RULE		·
2.	. Future Effective Date of Allowable Emission	ns:		
3.	. Requested Allowable Emissions and Units :			
4.	. Equivalent Allowable Emissions :			
	34.00	lb/hour	33.00	tons/year
5.	. Method of Compliance :			
	VE; PIPELINE NATURAL GAS			
6.	. Pollutant Allowable Emissions Comment (D	esc. of Related	Operating Me	thod/Mode) :
	34 LBS/HR ON OIL, 18 LB/HR ON NATURA PERMIT 0970071-001-AC	L GAS AS DESC	CRIBED IN CO	ONSTRUCTION

Emissions Unit Information Section 1 Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine
Pollutant Information Section 6
Allowable Emissions 1
1. Basis for Allowable Emissions Code : RULE
2. Future Effective Date of Allowable Emissions :
3. Requested Allowable Emissions and Units :
4. Equivalent Allowable Emissions :
lb/hour tons/year
5. Method of Compliance :
VE; PIPELINE NATURAL GAS
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
34 LBS/HR ON OIL, 18 LB/HR ON NATURAL GAS AS DESCRIBED IN CONSTRUCTION PERMIT 0970071-001-AC

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Uı	nit 2 - 170 MW Nominal Simple	Cycle Comb	oustion Turbine		
Po	ollutant Information Section	<u> </u>			
<u>Al</u>	lowable Emissions 1				
1.	Basis for Allowable Emissions	Code:	OTHER		
2.	Future Effective Date of Allow	able Emissio	ns:	-	
3.	Requested Allowable Emission	s and Units :			
4.	Equivalent Allowable Emission	is:			
	60	0.00	lb/hour	90.00	tons/year
5.	Method of Compliance :				
	CEM				
6.	Pollutant Allowable Emissions	Comment (I	Desc. of Related Op	erating Metho	od/Mode):
	Specified in Construction permut	# 0970071-00	01-AC		

**Emissions Unit Information Section** 

Unit 2 - 170 MW Nominal Sir		ombustion Turbi	ne		
Pollutant Information Section	on 2				
Allowable Emissions	1				
1. Basis for Allowable Emiss	sions Code :	RUI	LE		
2. Future Effective Date of A	llowable Emi	esions :	<del></del>		
2. I diale blicelive Date of A	mowable Emi				
3. Requested Allowable Emi	ssions and Un	uits :			
4. Equivalent Allowable Emi	ssions :				
	70.00	lb/hour	66.98	tons/year	
5. Method of Compliance:					
ANNUAL METHOD 10			`.	,	
6. Pollutant Allowable Emiss	ions Commer	nt (Desc. of Rela	ted Operating Mo	ethod/Mode):	
RULE 62-212.400, FAC					

Emissions Unit Information Sec Unit 2 - 170 MW Nominal Simple		 ustion Turbine		
Omt 2 - 170 W W Nommai Simple	-	istion furbine		
Pollutant Information Section	3			
Allowable Emissions 1				
1. Basis for Allowable Emission	s Code :	RULE		
2. Future Effective Date of Allow	wable Emission	ns :		
3. Requested Allowable Emissio	ns and Units :			
4. Equivalent Allowable Emission	ons :			
	8.00	lb/hour	4.50	tons/year
5. Method of Compliance :				
INITIAL STACK TEST				
6. Pollutant Allowable Emission	s Comment (D	esc. of Related C	perating Me	thod/Mode):
RULE 62-212.400.			·	·

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

Emissions Unit Information Section 2 Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine
Pollutant Information Section4
Allowable Emissions 1
1. Basis for Allowable Emissions Code : RULE
2. Future Effective Date of Allowable Emissions :
3. Requested Allowable Emissions and Units :
4. Equivalent Allowable Emissions :
104.30 lb/hour 39.11 tons/year
5. Method of Compliance :
FUEL SULFUR/HOURS LIMITS; SEE CONST. PER. COND. #31
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :
104.3 LBS/HR ON OIL, 1.1 LB/HR ON NATURAL GAS AS DESCRIBED IN CONSTRUCTION PERMIT 0970071-001-AC

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Emissions Unit Information Unit 2 - 170 MW Nominal Si	-	2 ombustion Turbine	e		
Pollutant Information Section	on5				
Allowable Emissions	1				
1. Basis for Allowable Emis	sions Code :	RULE	E		
2. Future Effective Date of A	Allowable Emi	ssions :			
3. Requested Allowable Emi	issions and Un	its:			
4. Equivalent Allowable Em	issions :				
	34.00	lb/hour	33.00	tons/year	
5. Method of Compliance :					
VE; PIPELINE NATURAL	GAS		·.		
6. Pollutant Allowable Emiss 34 LBS/HR ON OIL, 18 LB PERMIT 0970071-001-AC		•			

Init 2 - 170 MW Nominal Simple Cycle Combustion Turbine
collutant Information Section 6
Allowable Emissions 1
. Basis for Allowable Emissions Code : RULE
2. Future Effective Date of Allowable Emissions :
3. Requested Allowable Emissions and Units:
Equivalent Allowable Emissions :
lb/hour tons/year
. Method of Compliance :
VE; PIPELINE NATURAL GAS
. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
34 LBS/HR ON OIL, 18 LB/HR ON NATURAL GAS AS DESCRIBED IN CONSTRUCTION PERMIT 0970071-001-AC

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Emissions Unit Information Section 3			
Pollutant Information Section 11			
Allowable Emissions 1			
1. Basis for Allowable Emissions Cod	le: OTF	HER	
2. Future Effective Date of Allowable	Emissions :		
3. Requested Allowable Emissions and	d Units :		
4. Equivalent Allowable Emissions:			
60.00	lb/hour	90.00	tons/year
5. Method of Compliance:			
СЕМ			
6. Pollutant Allowable Emissions Com	nment (Desc. of Rela	ted Operating Me	ethod/Mode):
Specified in Construction permit # 097	70071-001-AC; See At	tachment 5, Page 5	i-3

Emissions Unit Information Se Unit 3 - 170 MW Nominal Simple	
Pollutant Information Section	2

<u>Al</u>	owable Emissions 1	
1.	Basis for Allowable Emissions Code: RULE	
2.	Future Effective Date of Allowable Emissions :	
3.	Requested Allowable Emissions and Units:	
4.	Equivalent Allowable Emissions:	
	70.00 lb/hour 66.98 tons/year	
5.	Method of Compliance:	
	ANNUAL METHOD 10	
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):	
	Specified in Construction permit # 0970071-001-AC; See Attachment 5, Page 5-3	

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Emissions Unit Information Section 3 Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine					
Pollutant Information	Pollutant Information Section 3				
Allowable Emissions	1				
1. Basis for Allowable	e Emissions Code :	RULE	3		
2. Future Effective Da	ite of Allowable Em	issions :			
3. Requested Allowab	le Emissions and Ur	nits:			•
4. Equivalent Allowab	ole Emissions :				
	8.00	lb/hour	4.50	tons/year	
5. Method of Complia	nce:	·			
INITIAL STACK TE	EST		·.		
6. Pollutant Allowable	Emissions Comme	nt (Desc. of Relate	d Operating M	ethod/Mode):	
RULE 62-212.400.				,	

III. Part 9c - 15

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

Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine		
The first transmit Simple Cycle Compassion Furance		
Pollutant Information Section 4		
Allowable Emissions 1		
1. Basis for Allowable Emissions Code : RULE		
2. Future Effective Date of Allowable Emissions :		
3. Requested Allowable Emissions and Units:		
A B : 1 (All 11 B : :		
4. Equivalent Allowable Emissions :		
104.30 lb/hour 39.11 tons/year		
5. Method of Compliance :		
FUEL SULFUR/HOURS LIMITS; SEE CONST. PER. COND. #31		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):		
104.3 LBS/HR ON OIL, 1.1 LB/HR ON NATURAL GAS AS DESCRIBED IN CONSTRUCTION PERMIT 0970071-001-AC		

Emissions Unit Information Section 3 Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine		
Pollutant Information Section 5		
Allowable Emissions 1		
1. Basis for Allowable Emissions Code : RULE		
2. Future Effective Date of Allowable Emissions :		
3. Requested Allowable Emissions and Units :		
4. Equivalent Allowable Emissions :		
34.00 lb/hour 33.00 tons/year		
5. Method of Compliance :		
VE; PIPELINE NATURAL GAS		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :		
34 LBS/HR ON OIL, 18 LB/HR ON NATURAL GAS AS DESCRIBED IN CONSTRUCTION PERMIT 0970071-001-AC		

Emissions Unit Information Section 3 Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine		
Pollutant Information Section 6		
Allowable Emissions 1		
1. Basis for Allowable Emissions Code : RULE		
2. Future Effective Date of Allowable Emissions :		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions :		
lb/hour tons/year		
5. Method of Compliance :		
VE; PIPELINE NATURAL GAS		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :		
34 LBS/HR ON OIL, 18 LB/HR ON NATURAL GAS AS DESCRIBED IN CONSTRUCTION PERMIT 0970071-001-AC		

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# I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine
<u>Visible Emissions Limitation</u> : Visible Emissions Limitation1
1. Visible Emissions Subtype: 10
2. Basis for Allowable Opacity: OTHER
3. Requested Allowable Opacity:
Normal Conditions: 10 %  Exceptional Conditions: %  Maximum Period of Excess Opacity Allowed: min/hour
4. Method of Compliance :
ANNUAL EPA Method 9
5. Visible Emissions Comment:
VE will also be used as a surrogate measure of PM/PM10 as described in Construction Permit No. 0970071-001-AC

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

#### I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

**Emissions Unit Information Section** - 2 Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine <u>Visible Emissions Limitation</u>: Visible Emissions Limitation 1. Visible Emissions Subtype: 10 2. Basis for Allowable Opacity: OTHER 3. Requested Allowable Opacity: Normal Conditions: 10 % % **Exceptional Conditions:** Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: Annual EPA Method 9 5. Visible Emissions Comment:

VE will also be used as a surrogate measure of PM/PM10 as described in Construction Permit No.

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

Effective: 3-21-96

0970071-001-AC

#### I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine Visible Emissions Limitation: Visible Emissions Limitation 1. Visible Emissions Subtype: 10 2. Basis for Allowable Opacity: **OTHER** 3. Requested Allowable Opacity: Normal Conditions: 10 % % **Exceptional Conditions:** Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: Annual EPA Method 9 5. Visible Emissions Comment: VE will also be used as a surrogate measure of PM/PM10 as described in Construction Permit No. 0970071-001-AC

III. Part 10 - 3

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

**Emissions Unit Information Section** - 3

# J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

**Emissions Unit Information Section** 1

Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine

Continuous Monitoring System Continuous Monitor 1		
1. Parameter Code: EM	2. Pollutant(s): NOX	
3. CMS Requirement RULE		
4. Monitor Information		
Manufacturer: TECO Model Number: 42C Serial Number: 42CHL-68197-359		
5. Installation Date :		
6. Performance Specification Test Date :	05-Nov-2001	
7. Continuous Monitor Comment : CONSTRUCTION PERMIT CONDITIONS 30 AND 41.		
Continuous Monitoring System Continuous M	Ionitor 2	
1. Parameter Code: O2	2. Pollutant(s):	
3. CMS Requirement RULE		
4. Monitor Information		
Manufacturer: AMETEK Model Number: CEM/O2 Serial Number: 10203792-1		
5. Installation Date :		
6. Performance Specification Test Date :	05-Nov-2001	
7. Continuous Monitor Comment :		
CONSTRUCTION PERMIT CONDITIONS 30 A	ND 41.	

III. Part 11 - 1

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### J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine  Continuous Monitoring System Continuous Monitor 1		
3. CMS Requirement RULE		
4. Monitor Information  Manufacturer: TECO  Model Number: 42C  Serial Number: 42CHL-68197-362  5. Installation Date:		
6. Performance Specification Test Date :	07-Nov-2001	
7. Continuous Monitor Comment :  CONSTRUCTION PERMIT CONDITIONS 30 A  Continuous Monitoring System Continuous M		
1. Parameter Code: O2	2. Pollutant(s):	
3. CMS Requirement RULE		
4. Monitor Information  Manufacturer: AMETEK  Model Number: CEM/O2  Serial Number: 10203792-2	·	
5. Installation Date :		
6. Performance Specification Test Date :	07-Nov-2001	
7. Continuous Monitor Comment: CONSTRUCTION PERMIT CONDITIONS 30 A	ND 41.	

III. Part 11 - 2

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

### J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

**Emissions Unit Information Section** 3

Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine

Continuous Monitoring System Con	tinuous Monitor 1	
1. Parameter Code: EM-	2. Pollutant(s): NOX	
3. CMS Requirement RULE		
4. Monitor Information		
Manufacturer: TECO Model Number: 42C Serial Number:		
5. Installation Date :		
6. Performance Specification Test Date	: 30-Apr-2002	
7. Continuous Monitor Comment : SEE COMPLIANCE PLAN FOR DETAILS. PERFORMANCE TEST DATE IS ESTIMATE ONLY.		
Continuous Monitoring System Con	tinuous Monitor 2	
1. Parameter Code: O2	2. Pollutant(s):	
3. CMS Requirement RULE		
4. Monitor Information		
Manufacturer: AMETEK Model Number: CEM/O2 Serial Number:	·	
5. Installation Date :		
6. Performance Specification Test Date	: 30-Apr-2002	
7. Continuous Monitor Comment :		
SEE COMPLIANCE PLAN FOR DETA ONLY.	AILS. PERFORMANCE TEST DATE IS ESTIMATE	

III. Part 11 - 3

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

# K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Ľ	HII:	ssions Unit Information Section			
U	Jnit 1 - 170 MW Nominal Simple Cycle Combustion Turbine				
<u>P</u>	<u>SD</u>	Increment Consumption Determination			
1.	. Ir	acrement Consuming for Particulate Matter or Sulfur Dioxide?			
[ ]	<b>X</b> ]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.			
[	]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.			
]	]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
	1	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
	]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.			

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	2. Increment Consuming for Nitrogen Dioxide?						
[ X	[ ]		has undergone			ergoing PSD reviously, for nitrogen of	ew as part of this lioxide. If so, emissions
[	]	paragraph (c) o the emissions u	of the definition unit addressed in	of "major this sect	r source of ion comme	air pollution" in C	or source pursuant to Chapter 62-213, F.A.C., and mence) construction after unit consumes increment.
[	]	unit began initi		er Februa	ry 8, 1988,	but before March	or source, and the emissions a 28, 1988. If so, baseline
[	]		• •	_	•	pegin) initial opera nit consumes incre	ation after March 28, 1988. ement.
[	None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.						
3.	In	crement Consu	ming/Expandin	g Code :			
		PM:	U	SO2:	U	NO2:	U
4.	В	aseline Emissio	ons :				
		PM:		lb/hour		•	tons/year
		SO2:		lb/hour			tons/year
		NO2 :					tons/year
5.	PS	SD Comment:		,			
	SEE PSD ANALYSIS SUBMITTED WITH CONSTRUCTION PERMIT						

III. Part 12 - 2

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

# K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Ŀ	mi	ssions Unit Information Section 2			
U	Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine				
<u>P</u>	SD	Increment Consumption Determination			
1	. In	acrement Consuming for Particulate Matter or Sulfur Dioxide?			
[ ]	X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.			
[	]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.			
[	]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
[	]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
	]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.			

III. Part 12 - 3

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

2.	2. Increment Consuming for Nitrogen Dioxide?				
[ X	[ ]		ergone PSD revie	tion is undergoing PSD review previously, for nitrogen	_
]	]	paragraph (c) of the def the emissions unit addre	inition of "major essed in this section	-	Chapter 62-213, F.A.C., and nmence) construction after
[	]		tion after Februar	ry 8, 1988, but before Marc	ajor source, and the emissions ch 28, 1988. If so, baseline
[	]		_	n (or will begin) initial ope	ration after March 28, 1988. rement.
]	None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.			eeded to determine whether	
3.	In	crement Consuming/Ex	panding Code:		,
		PM: U	SO2:	U NO2	: U
4.	В	aseline Emissions :			
}		PM:	lb/hour		tons/year
		SO2:	lb/hour		tons/year
		NO2 :			tons/year
5.	PS	SD Comment:		·	
ļ 	SE	EE PSD ANALYSIS SUB	MITTED WITH (	CONSTRUCTION PERMIT	

III. Part 12 - 4

DEP Form No. 62-210.900(1) - Form Effective : 3-21-96

# K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

En	ıis	ssions Unit Information Section 3			
Uni	Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine				
<u>PS</u>	<u>D</u>	Increment Consumption Determination			
1.	In	crement Consuming for Particulate Matter or Sulfur Dioxide?			
[ <b>X</b> ]	]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.			
[ ]	]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.			
[ ]	]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
[ ]	]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
[ ]		None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.			

III. Part 12 - 5

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

2.	2. Increment Consuming for Nitrogen Dioxide?					
[ X	[ ]		gone PSD review	n is undergoing PSD review as part of this previously, for nitrogen dioxide. If so, emissions		
]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., an the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.			urce of air pollution" in Chapter 62-213, F.A.C., and commenced (or will commence) construction after		
[	]	_	on after February 8	classified as an EPA major source, and the emission 8, 1988, but before March 28, 1988. If so, baseline sumes increment.		
[	]			or will begin) initial operation after March 28, 1988. sions unit consumes increment.		
[	]	case, additional analysis,	beyond the scope	nissions of the emissions unit are nonzero. In such of this application, is needed to determine whether l occur) after the baseline date that may consume or		
3.	In	crement Consuming/Exp	anding Code:			
		PM: U	SO2: U	NO2: U		
4.	В	aseline Emissions :				
ļ		PM:	lb/hour	tons/year		
		SO2:	lb/hour	tons/year		
		NO2 :		tons/year		
5.	PS	SD Comment:				
	SE	EE PSD ANALYSIS SUBM	IITTED WITH CON	NSTRUCTION PERMIT		
•			·			

III. Part 12 - 6

DEP Form No. 62-210.900(1) - Form Effective : 3-21-96

# L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 1					
Unit 1 - 170 MW Nominal Simple Cycle Combustion Turbine					
Supplemental Requirements for All Applications	Supplemental Requirements for All Applications				
1. Process Flow Diagram:	Attachment 3				
2. Fuel Analysis or Specification :	NA				
3. Detailed Description of Control Equipment :	NA				
4. Description of Stack Sampling Facilities :	NA				
5. Compliance Test Report :	12/21/2001				
6. Procedures for Startup and Shutdown:	NA				
7. Operation and Maintenance Plan :	NA				
8. Supplemental Information for Construction Permit Application :	NA				
9. Other Information Required by Rule or Statue :	NA				
Additional Supplemental Requirements for Category I Application	ns Only				
10. Alternative Methods of Operations:	NA				
11. Alterntive Modes of Operation (Emissions Trading):	NA				

III. Part 13 - 1

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

12. Identification of A	Additional Applicable Requirements:	NA
13. Compliance Assu Plan :	rance Monitoring	NA ·
14. Acid Rain Applic	cation (Hard-copy Required):	
NA	Acid Rain Part - Phase II (For	m No. 62-210.900(1)(a))
NA	Repowering Extension Plan (F	Form No. 62-210.900(1)(a)1.)
NA	New Unit Exemption (Form N	To. 62-210.900(1)(a)2.)
. NA Retired Unit Exemption (Form		n No. 62-210.900(1)(a)3.)
	<u></u>	

# L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 2	
Unit 2 - 170 MW Nominal Simple Cycle Combustion Turbine	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	Attachment 3
2. Fuel Analysis or Specification:	NA .
3. Detailed Description of Control Equipment :	NA
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	12/21/2001
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA
9. Other Information Required by Rule or Statue :	NA
Additional Supplemental Requirements for Category I Application	s Only
10. Alternative Methods of Operations :	NA
11. Alterntive Modes of Operation (Emissions Trading):	NA

III. Part 13 - 3

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

12. Identification of Additional Applicable Requirements :		NA	
13. Compliance Assu Plan:	rance Monitoring	NA	
14. Acid Rain Applic	eation (Hard-copy Required):		
NA	Acid Rain Part - Phase II (Form	No. 62-210.900(1)(a))	
NA	Repowering Extension Plan (For	rm No. 62-210.900(1)(a)1.)	
NA	New Unit Exemption (Form No.	. 62-210.900(1)(a)2.)	
NA Retired Unit Exemption (Form		No. 62-210.900(1)(a)3.)	

# L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

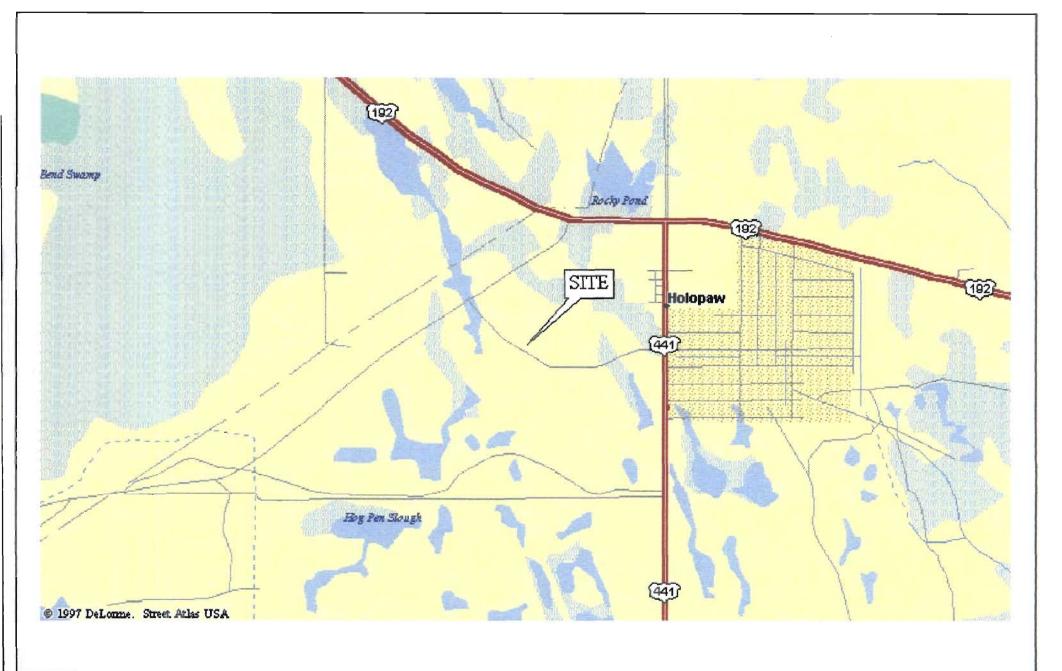
Unit 3 - 170 MW Nominal Simple Cycle Combustion Turbine	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	Attachment 3
2. Fuel Analysis or Specification :	NA
3. Detailed Description of Control Equipment :	NA
4. Description of Stack Sampling Facilities :	NA
5. Compliance Test Report :	SEE ATT. 7
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	NA .
9. Other Information Required by Rule or Statue :	NA
Additional Supplemental Requirements for Category I Application	<u> 1s Only</u>
10. Alternative Methods of Operations:	NA
11. Alterntive Modes of Operation (Emissions Trading):	NA

III. Part 13 - 5

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

12. Identification of A	Additional Applicable Requirements :	NA			
13. Compliance Assurance Monitoring Plan:					
14. Acid Rain Applic	14. Acid Rain Application (Hard-copy Required):				
NA	Acid Rain Part - Phase II (Fe	orm No. 62-210.900(1)(a))			
NA	Repowering Extension Plan	n (Form No. 62-210.900(1)(a)1.)			
NA	New Unit Exemption (Form	No. 62-210.900(1)(a)2.)			
NA Retired Unit Exemption (Fo		rm No. 62-210.900(1)(a)3.)			

ATTACHMENT 1. SITE LOCATION





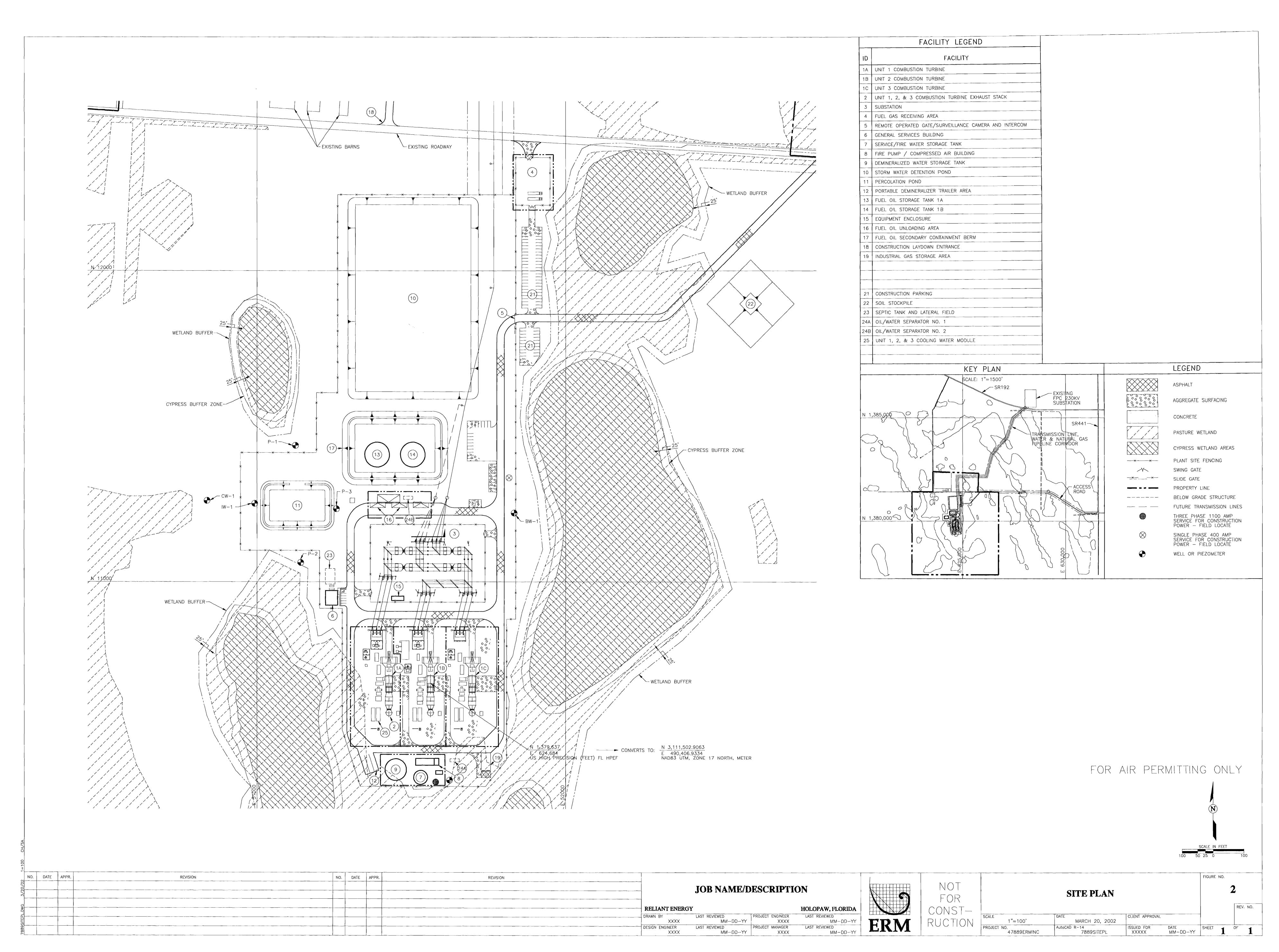
Environmental Resources Management

SITE LOCATION MAP RELIANT ENERGY HOLOPAW, FLORIDA FIGURE

1

1

ATTACHMENT 2. FACILITY PLOT PLAN



ATTACHMENT 3. PROCESS FLOW DIAGRAM

ATTACHMENT 4. PROJECT DESCRIPTION AND REGULATORY ANALYSIS

## 1.0 EXECUTIVE SUMMARY

Reliant Energy Osceola has constructed a power generating plant about 20 miles southeast of Orlando that consists of three simple-cycle combustion turbines, rated at a nominal 170 MW each. The turbines use low NOx technologies and burn primarily natural gas with distillate fuel backup. The units operate in intermittent duty.

The facility is located in Osceola County at UTM coordinates: Zone 17; 490.429Km E; 3111.307 km N. This is on the south edge of a local road, approximately 7,000 feet west of U.S. 441 about 0.9 miles south of the intersection of U.S. 192 and U.S.441.

Reliant Energy Osceola is a PSD/NSR (Prevention of Significant Deterioration/New Source Review) major facility. In order to obtain Air Construction Permit No. 0970071-001-AC, the project has already undergone a PSD review and a BACT (Best Available Control Technology) analysis.

### 2.0 PROCESS DESCRIPTION

Three simple cycle dual fuel combustion turbines have been constructed near Holopaw, Florida. Each unit is rated at a nominal 170 megawatts and will fire pipeline natural gas with distillate fuel as a backup.

Natural gas combustion will meet BACT standards through the use of low NOx burners. The combustor uses a two-stage design that premixes a portion of the air and fuel in the first stage and the remaining air and fuel are injected into the second stage. Sulfur dioxide emissions will be minimal, derived only from the sulfur content of the pipeline gas where sulfur is used primarily as an odorant at very low levels.

During distillate oil firing, water injection will be used to control NOx. Water injection lowers the flame temperature and thus the production of nitrogen oxides. Sulfur dioxide emissions will be derived from the sulfur content of the distillate oil, which will be limited to 0.05% sulfur.

The facility will also operate a number of insignificant and unregulated emissions sources. The largest of these will be two distillate oil storage tanks, which hold 1.5 million gallons each and are calculated to emit about 0.84 tons/year of VOC each, for a total of 1.67 tons/year of VOC for both tanks. A diesel engine emergency firewater pump is also on site and is expected to run less than 400 hours per year, primarily during periodic test runs. The facility will also operate water and wastewater treatment facilities. There will also be incidental fugitive emissions (minor distillate oil pump and piping fitting leaks, etc.). Since none of these sources are expected to be significant emissions sources, it is requested that they be exempted from the permit.

### 2.1 EMISSIONS STACK PARAMETERS

Table 2-1. Emissions Stack Parameters -Reliant Energy Osceola

EU	Unit	Diameter	Area	Height	Flow	
	_	(ft)	(ft <sup>2</sup> )	(ft)	(acfm)	
001	No. 1	18.125	258.02	75	2,400,000	
002	No. 2	18.125	258.02	75	2,400,000	
003	No. 3	18.125	258.02	75	2,400,000	

# 3.0 REGULATORY ANALYSIS

Since the facility potential to emit exceeds 100 tons per year of some criteria pollutants, it is a Title V Major Source. Because emissions of one or more criteria pollutants exceed

250 tons per year, it has undergone a PSD review and a BACT analysis as part of the construction permitting phase. As an NSPS emissions source, it is subject to all applicable requirements of 40 CFR 60, Subpart A, General Provisions.

New Source Performance Standards Subpart GG, Standards of Performance for Stationary Gas Turbines, applies to stationary gas turbines with a peak load heat input of at least 10.7 gigajoules per hour (10 MMBtu/hr or 2.97 MW), and therefore, applies to the new combustion turbines. Per 40 CFR 60 Subpart GG, NO<sub>x</sub> emissions from gas turbines with a heat input at peak load equal to or greater than 100 MMBtu/hr based on lower heating value of the fuel fired, shall be limited by:

$$STD = 0.0075 \times (14.4/Y) + F$$

Where: STD = allowable  $NO_x$  emissions (percent by volume at 15% oxygen and on a dry basis)

Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual assured heat rate based on lower heating value of fuel as measured at actual peak load for the facility.

 $F = NO_x$  emission allowance for fuel-bound nitrogen, 0.005 for a nitrogen content of more than 0.25 percent by weight.

Each new nominal 170 MW turbine with a maximum heat input rate of 1942 MMBtu/hr will be limited to nitrogen oxides emissions (at 15% oxygen) of 10.5 ppmvd firing natural gas and 42 ppmvd firing distillate oil which is less than the Subpart GG standard and is obtainable. Compliance with the standards for NO<sub>x</sub> will be assured by continuous emissions monitoring (CEMs).

Subpart GG also limits the sulfur content of the fuel to 0.8 percent by weight. Pipeline natural gas is typically limited to 85 ppmv as S, which is less than 0.02 percent by weight. The BACT analysis performed prior to construction permit approval limited distillate oil to 0.05% S. Thus currently permitted fuels will not exceed Subpart GG sulfur limits.

Two 1,500,000 gallon bulk distillate fuel oil tanks are subject to the minor recordkeeping requirements of 40 CFR 60 Subpart Kb. It is requested that they be treated as exempted from the permit.

## 4.0 COMPLIANCE ASSURANCE

Prior to the submittal of this application, the initial stack tests for Units 1 and 2 were completed as required by the Air Construction Permit PSD-FL-273 (0970071-001-AC). Also as required by this construction permit, a NOx CEM was installed and a monitoring plan submitted. Unit 3 is addressed in the compliance plan, Attachment 7.

As described in the construction permit, compliance with the NOx limit will be monitored using the NOx CEM installed on each unit. Compliance with the SO<sub>2</sub> limit will be achieved through fuel sulfur monitoring and reporting. Annual Visible Emissions (VE) testing (and the use of pipeline natural gas) will serve as a surrogate for PM/PM10 testing compliance as described in the construction permit, with a limit of 10% opacity. Compliance with the CO standard was verified in the initial stack tests using Method 10 and will be tested annually thereafter. Compliance with the permitted VOC limit was demonstrated using an approved EPA method for volatile organic concentrations and will thereafter be verified by using the CO emission limit. Periodic tuning data will be employed as a surrogate and no annual testing will be required.

ATTACHMENT 5. CALCULATIONS: EMISSIONS

#### **EMISSION INVENTORY WORKSHEET NATURAL GAS COMBUSTION - CRITERIA POLLUTANTS** Page 5-1 PROJECT INFORMATION Project & Task #: 170MW COMBUSTION TURBINE EMISSIONS-NATURAL GAS 03/28/2002 FACILITY AND SOURCE DESCRIPTION Facility Name: **RELIANT ENERGY OSCEOLA** Emission Source Description: Combustion Turbine-Natural Gas (Typical for Each of Three Units) Emission Control Method(s)/ID No.(s): Low NOx Burner Emission Point ID: 001-003 EMISSION ESTIMATION EQUATIONS Emission (lb/hr) = Heat Input (MMBtul/hr) x Pollutant Emission Factor (lb/MMBtu) x [(100 - Control Factor)/100] Emission (ton/yr) = Heat Input (MMBtul/hr) x Operating Period (hrs/yr) x Pollutant Emission Factor (lb/MMBtu) x (1 ton/2,000 lb) x [(100 - Control Factor)/100] INPUT DATA AND EMISSIONS CALCULATIONS Operating Hours: 24 Hrs/Day 7 Days/Wk 3,000 Hrs/Yr Uncontrolled Potential Pollutant Control Criteria Maximum **Pollutant** Heat Input **Emission Factor** Factor **Emission Rates** (MMBtu/hr) (lb/MMBtu) (pct.) (tpy) SO<sub>2</sub> 1709.0 0.0006 0.0 1.54 1709.0 0.0315 0.0 53.85 80.78 NO, \*РМ 1709.0 0.0046 0.0 7.90 11.84 CO 1709.0 0.0179 0.0 30.56 45.84 VOC 1709.0 0.0021 0.0 3.59 5.38 SOURCES OF INPUT DATA Variable **Data Source** Operating Hours PERMIT 0970071-001-AC Maximum Heat Input PERMIT 0970071-001-AC 'NOx. STACK TEST DATA CO, VOC & PM Emission Factors TURBINE VENDOR DATA CONSISTENT WITH ACID RAIN REPORTING SOx Emission Factor NOTES AND OBSERVATIONS \*PM emission factor includes both condensable and filterable PM.

#### **EMISSION INVENTORY WORKSHEET NATURAL GAS COMBUSTION - CRITERIA POLLUTANTS** Page 5-2 PROJECT INFORMATION Project & Task #: 170MW COMBUSTION TURBINE EMISSIONS-DISTILLATE OIL 03/28/2002 FACILITY AND SOURCE DESCRIPTION Facility Name: RELIANT ENERGY OSCEOLA Emission Source Description: Combustion Turbine-Distillate Oil Emission Control Method(s)/ID No.(s); None Emission Point ID: 001-003 EMISSION ESTIMATION EQUATIONS Emission (lb/hr) = Heat Input (MMBtul/hr) x Pollutant Emission Factor (lb/MMBtu) x [(100 - Control Factor)/100] Emission (ton/yr) = Heat Input (MMBtul/hr) x Operating Period (hrs/yr) x Pollutant Emission Factor (lb/MMBtu) x (1 ton/2,000 lb) x [(100 - Control Factor)/100] INPUT DATA AND EMISSIONS CALCULATIONS Operating Hours: 24 Hrs/Day 7 Days/Wk 750 Hrs/Yr Uncontrolled Criteria **Pollutant** Control **Potential** Maximum **Emission Rates Pollutant** Heat Input **Emission Factor** Factor (MMBtu/hr) (lb/MMBtu) (pct.) (lb/hr) (tpy) SO<sub>2</sub> 1942.0 0.0546 0.0 106.11 39.79 0.1412 NO, 1942.0 0.0 274.19 102.82 0.0094 0.0 18.24 \*PM 1942.0 6.84 0.0359 69.78 26.17 CO 1942.0 0.0 VOC 1942.0 0.0041 0.0 8.04 3.01 SOURCES OF INPUT DATA Variable Data Source Operating Hours PERMIT 0970071-001-AC PERMIT 0970071-001-AC Maximum Heat Input "NOx. STACK TEST DATA **TURBINE VENDOR DATA** CO, VOC & PM Emission Factors SOx Emission Factor **MATERIAL BALANCE** NOTES AND OBSERVATIONS PM emission factor includes both condensable and filterable PM.

# **EMISSION INVENTORY WORKSHEET**

**NATURAL GAS COMBUSTION - CRITERIA POLLUTANTS** 

Page 5-3

# PROJECT INFORMATION

# Project & Task #: 170MW COMBUSTION TURBINE EMISSIONS-SUMMARY

## FACILITY AND SOURCE DESCRIPTION

Facility Name: RELIANT ENERGY OSCEOLA

Emission Source Description: Combustion Turbine

Emission Control Method(s)/ID No.(s): Low NOx burners/ Water Injection for Distillate Oil

Emission Point ID: 001-003

Operating Hours

All Fuels Combined

3000

Natural Gas Maximum

3000

Distillate Oil Maximum

750

		FACILITY				
	NATURAL GAS eria Allowable		DISTILLATE OIL Allowable		COMBINED FUEL	COMBINED FUEL Allowable
Criteria					Allowable	
Pollutant	Emissi	on Rates	Emission Rates		Emission Rates	Emission Rates
	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(tpy)	(tpy)
SO <sub>2</sub>	1.10	1.65	104.30	39.11	40.35	. 121.05
NO <sub>x</sub>	60.00	90.00	323.00	121.13	90.00	270.00
*PM	18.00	27.00	34.00	12.75	33.00	99.00
co	36.20	54.30	70.00	26.25	66.98	200.93
Voc	3.00	4.50	8.00	3.00	6.38	19.13

ATTACHMENT 6. LIST OF PROPOSED EXEMPT ACTIVITIES

# LIST OF PROPOSED EXEMPT ACTIVITIES

# Title V Permit Application Holopaw Peaking Units Reliant Energy Osceola, LLC

- 1. Pipeline natural gas heaters (2).
- ✓2. Emergency diesel fire water pump.
- 3. Distillate fuel oil truck delivery unloading.
- Two (2) 1.5 million gallon distillate fuel oil tanks (emissions below 5 TPY VOC and no substantive emissions limiting standards).
- 5. Oil/water separators (2).
- 6. Percolation pond.
- 7. Underground storage tanks for turbine water wash (3).
- 8. Underground storage tanks for distillate fuel oil, turbine cold start/trip out (3).
- Unconfined particulate matter from truck traffic, soil stockpile.
- 10. Cooling towers (3)
- 11. Miscellaneous oil-filled power transformers.

ATTACHMENT 7. COMPLIANCE REPORT AND PLAN (UNIT 3)

# **COMPLIANCE REPORT AND PLAN (UNIT 3)**

# Title V Permit Application Holopaw Peaking Units Reliant Energy Osceola, LLC

Unit 3 had not fully completed construction, been test fired, and tested prior to the submittal of this Title V application. As required in the construction permit 0970071-001-AC, compliance with the allowable emission limiting standards will be determined within 60 days of achieving maximum production rate, but not later than 180 days after initial operation of Unit 3. Refer to Specific Conditions 28, 29,30, 31, 32, 33, and 34 for required testing details for each required pollutant.

The DEP will be notified as required by the construction permit at least 30 days prior to the initial performance tests. Compliance test results will be submitted to the DEP no later than 45 days after completion of the last test run.

A Continuous Emissions Monitoring (CEM) plan has been submitted for all three units as required. Unit 3 will have an initial CEM certification application submitted no later than 45 days prior to the first scheduled certification test as required by 40 CFR75.

Unit 3 will be in compliance with the requirements of the Title V permit once it has been completed, started, a CEM plan submitted to DEP, and stack testing required by the referenced construction permit has been completed.

ATTACHMENT 8. COMPLIANCE CERTIFICATION

# **COMPLIANCE CERTIFICATION**

Title V Permit Application **Holopaw Peaking Units** Reliant Energy Osceola, LLC

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

3-29-02

Terry E. Gish

Managing Director, SE Operations