



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary.

## NOTICE OF FINAL PERMIT REVISION

In the Matter of an Opening for Cause  
of a Permit held by:

Mr. James Packer  
Director of Operations, Southeast Business Unit  
Mirant Corporation  
1155 Perimeter Center West  
Atlanta, GA 30338-5416

FINAL Permit Revision No. **1010373-004-AV**  
**Shady Hills Generating Station**

Enclosed is FINAL Title V Permit Revision Number 1010373-004-AV for the operation of the Shady Hills Generating Station, located at 14240 Merchant Energy Way, Shady Hills, Pasco County, issued pursuant to Chapter 403, Florida Statutes (F.S.).

An electronic version of this permit has been posted on the Division of Air Resource Management's world wide web site for the United States Environmental Protection Agency (U.S. EPA) Region 4 office's review. The web site address is:

<http://www.dep.state.fl.us/air/permitting/airpermits>

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the permitting authority.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 0/30/03 to the person(s) listed or as otherwise noted:

James Packer\*  
Kennard F. Kosky, P.E., Golder Associates, Inc.  
U.S. EPA, Region 4 (INTERNET E-mail Memorandum)  
Gerald Kissel, P.E., Southwest District Office

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.

Rubena J. Sunday 0/30/03  
(Clerk) (Date)

**FINAL PERMIT DETERMINATION**

**I. Comment(s).**

No comments were received from U.S. EPA, Region 4, concerning the PROPOSED Title V Permit that was posted on the Department's web site on October 22, 2003.

**II. Conclusion.**

The permitting authority hereby issues the FINAL Title V Permit, with no changes:

**SENDER: COMPLETE THIS SECTION**

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

1. Article Addressed to:

Mr. James Packer  
 Director of Operations, Southeast  
 Business Unit  
 Mirant Corporation  
 1155 Perimeter Center West  
 Atlanta, Georgia 30338-5416

2. Article Number

(Transfer from service label)

7001 1140 0002 1577 9939

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X *[Signature]*

- Agent
- Addressee

B. Received by (Printed Name)

X *Rego Andrade*

C. Date of Delivery

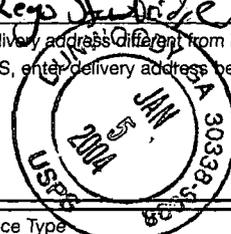
*1/5/04*

D. Is delivery address different from item 1?

Yes

If YES, enter delivery address below:

No



3. Service Type

- Certified Mail
- Express Mail
- Registered
- Return Receipt for Merchandise
- Insured Mail
- C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT  
 (Domestic Mail Only; No Insurance Coverage Provided)**

7001 1140 0002 1577 9939

**OFFICIAL USE**

Mr. James Packer

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark  
Here

**Sent To**

Mr. James Packer  
 Street, Apt. No.;  
 or PO Box No. 1155 Perimeter Center West  
 City, State, ZIP+4  
 Atlanta, Georgia 30388-5416

## STATEMENT OF BASIS

Mirant Corporation  
**Shady Hills Generating Station**  
Facility ID No. **1010373**  
Pasco County

Title V Air Operation Permit Revision  
Permit No. **1010373-004-AV**

This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

This facility consists of three, dual-fuel, nominal 170 megawatt (MW) General Electric model PG7241FA combustion turbine-electrical generators, three 75-foot exhaust stacks, and one 2.8-million gallon fuel oil storage tank. The combustion turbine units can operate in simple-cycle mode and intermittent duty mode. The units are equipped with Dry Low NO<sub>x</sub> (DLN-2.6) combustors and wet injection capability.

*It has been discovered that certain applicable requirements related to volatile organic compounds (VOC) emissions were inadvertently omitted from the FINAL Title V Permit for the facility that was effective on January 1, 2003. Therefore, the Department is required to open the Title V Permit for cause and install these missing requirements in accordance with Rules 62-4.080(1), 62-213.430(4) and 62-213.440(1), F.A.C., and 40 CFR 70.7(f)(1)(iii).*

Two Specific Conditions of the Title V Permit are added as follows:

- From:

**A.14.** [Reserved.]

- To:

**A.14.** Volatile Organic Compounds (VOC) Emissions. The concentration of VOC in the stack exhaust gas with the combustion turbine operating on natural gas shall exceed neither 1.4 ppmvd nor 2.8 lb/hr (ISO conditions) and neither 7 ppmvw nor 16.2 lb/hr (ISO conditions) while operating on oil to be demonstrated by *initial* stack test using EPA Method 18, 25 or 25A. [Rule 62-212.400, F.A.C.; and 1010373-001-AC, Specific Condition 21.]

- From:

A.26. [Reserved.]

- To:

A.26. Compliance with the VOC emission limit. An *initial* test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit and periodic tuning data will be employed as surrogate, and no annual testing is required.  
[1010373-001-AC, Specific Condition 33.]

Compliance Assurance Monitoring (CAM) *does not apply* to these emissions units. Water injection is used for NO<sub>x</sub> control.

Also included in this permit are miscellaneous insignificant emissions units and/or activities.

Based on the initial Title V permit application received April 1, 2002, this facility is *not* a major source of hazardous air pollutants (HAPs).

The three combustion turbines are regulated under Phase II of the Federal Acid Rain Program. The facility holds ORIS code **55414**.

Mirant Corporation  
**Shady Hills Generating Station**  
Facility ID No. **1010373**  
Pasco County

Title V Air Operation Permit Revision  
FINAL Permit No. **1010373-004-AV**

Permitting Authority:

State of Florida  
Department of Environmental Protection  
Division of Air Resource Management  
Bureau of Air Regulation  
Title V Section

Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114  
Fax: 850/922-6979

Compliance Authority:

Department of Environmental Protection  
Southwest District

3804 Coconut Palm Drive  
Tampa, Florida 33619-8218

Telephone: 813/744-6100  
Fax: 813/744-6458

Title V Air Operation Permit  
FINAL Permit Revision No. 1010373-004-AV

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# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

**Permittee:**  
**Mirant Corporation**

**FINAL Permit No. 1010373-004-AV**  
**Facility ID No.: 1010373**  
**SIC Nos.: 49, 4911**  
**Project: Title V Air Operation Permit Revision**

This permit revision is for the operation of the Shady Hills Generating Station. This facility is located at 14240 Merchant Energy Way, Shady Hills, Pasco County; East of Hudson and North of SR 52; UTM coordinates are: Zone 17, 347.0 km E, 3139.0 km N; and, Latitude: 28° 22' 00" North, and Longitude: 82° 30' 00" West.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

**Referenced attachments made a part of this permit:**

Appendix I-1, List of Insignificant Emissions Units and/or Activities

Appendix TV-4, Title V Conditions, version dated 02/12/02

Appendix SS-1, Stack Sampling Facilities version dated 10/07/96

TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96

FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS

EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT, version dated 07/96

**Effective Date: January 1, 2003**

**Revision Effective Date: December 16, 2003**

**Renewal Application Due Date: July 1, 2007**

**Expiration Date: December 31, 2007**

**Department of Environmental Protection**

Michael G. Cooke, Director  
Division of Air Resource  
Management

MGC/tbc

## Section I. Facility Information.

### Subsection A. Facility Description.

This facility consists of three, dual-fuel, nominal 170 megawatt (MW) General Electric Frame 7FA combustion turbine-electrical generators (model PG7241FA), three 75-foot exhaust stacks, and one 2.8-million gallon fuel oil storage tank. The combustion turbine units can operate in simple-cycle mode and intermittent duty mode. The units are equipped with Dry Low NO<sub>x</sub> (DLN-2.6) combustors and wet injection capability.

Also included in this permit are miscellaneous insignificant emissions units and/or activities.

Based on the initial Title V permit application received April 1, 2002, this facility is *not* a major source of hazardous air pollutants (HAPs).

### Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
-001	One nominal 170 Megawatt Gas Simple-Cycle Combustion Turbine-Electrical Generator.
-002	One nominal 170 Megawatt Gas Simple-Cycle Combustion Turbine-Electrical Generator.
-003	One nominal 170 Megawatt Gas Simple-Cycle Combustion Turbine-Electrical Generator.
-004	Fuel Storage Tank.

*Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.*

### Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

Appendix A-1: Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1: Permit History/ID Number Changes

Statement of Basis

These documents are on file with permitting authority:

FINAL Title V Air Operation Permit effective 01/01/03.

Letter from the Department to the Mirant Corporation dated May 29, 2003, indicating that the Title V permit will be opened for cause.

DRAFT Title V Permit Revision clerked on August 13, 2003.

PROPOSED Title V Permit Revision posted for EPA review on October 22, 2003.

## Section II. Facility-wide Conditions.

### The following conditions apply facility-wide:

1. Appendix TV-4, Title V Conditions, is a part of this permit.  
{Permitting note: Appendix TV-4, Title V Conditions, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}
  2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.  
[Rule 62-296.320(2), F.A.C.]
  3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.  
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
  4. Prevention of Accidental Releases (Section 112(r) of CAA).
    - a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center  
Post Office Box 3346  
Merrifield, VA 22116-3346  
Telephone: 703/816-4434
- and,
- b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.  
[40 CFR 68]
5. [Reserved.]
  6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.  
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]
  7. [Reserved.]
  8. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or

installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

[Rule 62-296.320(1)(a), F.A.C.]

**9. Not federally enforceable.** Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- Paving and maintaining roads, parking areas, and yards.
- Applying water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- Applying asphalt, water, oil, chemicals, or other dust suppressants to unpaved roads, yards, open stockpiles and similar activities.
- Removing particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent the particulate matter from becoming airborne.
- Landscaping and planting of vegetation.
- Using hoods, fans, filters, and other similar equipment to contain, capture, and/or vent particulate matter.
- Confining abrasive blasting where possible.
- Enclosing or covering of conveyor systems.

[Rule 62-296.320(4)(c)2., F.A.C.; and proposed by applicant in the initial Title V permit application received April 1, 2002.]

{Note: This condition implements the requirements of Rules 62-296.320(4)(c)1., 3., & 4., F.A.C. (see Condition 57. of Appendix TV-4, Title V Conditions).}

**10.** When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

[Rule 62-213.440, F.A.C.]

**11. Statement of Compliance.** The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.

[Rules 62-213.440(3) and 62-213.900, F.A.C.]

12. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District Office.

Department of Environmental Protection  
Southwest District Office  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
Telephone: 813/744-6100  
Fax: 813/744-6084

[1010373-001-AC, Specific Condition 6.]

13. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch, Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303  
Telephone: 404/562-9155, Fax: 404/562-9164

14. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.

[Rule 62-213.420(4), F.A.C.]

15. BACT Determination. In accordance with Rule 62-212.400(6)(b), F.A.C. (and 40 CFR 51.166(j)(4)), the Best Available Control Technology (BACT) determination shall be reviewed and modified as appropriate in the event of a plant conversion. This paragraph states: "For phased construction project, the determination of best available control technology shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source." This reassessment will also be conducted for this project if there are any increases in heat input limits, hours of operation, oil firing, low or baseload operation (e.g., conversion to combined-cycle operation), short-term or annual emission limits, annual fuel heat input limits or similar changes.

[40 CFR 51.166(j)(4); Rule 62-212.400(6)(b), F.A.C.; and 1010373-001-AC, Specific Condition 7. in Facility Information Section]

**Section III. Emissions Unit(s) and Conditions.**

**Subsection A. This section addresses the following emissions units.....**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-001	One nominal 170 Megawatt Gas Simple-Cycle Combustion Turbine-Electrical Generator.
-002	One nominal 170 Megawatt Gas Simple-Cycle Combustion Turbine-Electrical Generator.
-003	One nominal 170 Megawatt Gas Simple-Cycle Combustion Turbine-Electrical Generator.

These emissions units consist of three, dual-fuel, nominal 170 megawatt (MW) General Electric model PG7241FA combustion turbine-electrical generators, and three 75-foot exhaust stacks. The units can operate in simple-cycle mode and intermittent duty mode. The units are equipped with Dry Low NO<sub>x</sub> (DLN-2.6) combustors and wet injection capability.

{Permitting note: These emissions units are regulated under Acid Rain-Phase II, 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C., Rule 212.400, F.A.C., Prevention of Significant Deterioration (PSD), Best Available Control Technology (BACT), and Air Construction Permit PSD-FL-280 (1010373-001-AC).}

Compliance Assurance Monitoring (CAM) *does not apply* to these emissions units. Water injection is used for NO<sub>x</sub> control.

**The following specific conditions apply to the emissions unit(s) listed above:**

**General**

**A.1. Definitions.** For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60 shall apply, except that the term "Administrator" when used in 40 CFR 60 shall mean the Secretary or the Secretary's designee.

[40 CFR 60.2; and Rule 62-204.800(7)(a), F.A.C.]

**A.2. Concealment.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

**A.3. Circumvention.** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly.

[Rule 62-210.650, F.A.C.; and 1010373-001-AC, Specific Condition 12.]

**Essential Potential to Emit (PTE) Parameters**

**A.4. Permitted Capacity.** The maximum heat input rates, based on the lower heating value (LHV) of each fuel to each Unit (-001, -002, and -003) at ambient conditions of 59°F temperature, 60% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,612 million Btu per hour (mmBtu/hr) when firing natural gas, nor 1,806 mmBtu/hr when firing No. 2 or superior grade of distillate fuel oil. These maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and 1010373-001-AC, Specific Condition 8.]

**A.5. Methods of Operation -- Fuels.** Only pipeline natural gas or No. 2 fuel oil, with a maximum of 0.05% sulfur content, by weight, or superior grade of distillate fuel oil, shall be fired in these units.

{Note: The limitation of this specific condition is more stringent than the NSPS sulfur dioxide limitation and thus assures compliance with 40 CFR 60.333 and 60.334.}

[Rules 62-210.200 (Definitions - Potential Emissions) and 62-213.410, F.A.C.; and 1010373-001-AC, Specific Condition 7.]

**A.6. Fuel Oil Usage.** The amount of back-up fuel (fuel oil) burned at the site (in Btu's) shall not exceed the amount of natural gas (primary fuel) burned at the site (in Btu's) during any consecutive 12-month period.

[Rule 62-210.200, F.A.C. (BACT); and 1010373-001-AC, Specific Condition 14.]

**A.7. Hours of Operation.** The three stationary gas turbines shall operate no more than an average of 3,390 hours per unit during any calendar year. The three stationary gas turbines shall operate no more than an average of 1000 hours per unit on fuel oil during any calendar year. No single combustion turbine shall operate more than 5,000 hours in a single year.

[Rules 62-4.160(2), 62-210.200(PTE), and 62-212.400, F.A.C.; and 1010373-001-AC, Specific Condition 13.]

**Control Technology**

**A.8.** Dry Low NO<sub>x</sub> (DLN-2.6) combustors shall be used on the stationary combustion turbines to control nitrogen oxides (NO<sub>x</sub>) emissions while firing natural gas.

[Rules 62-4.070 and 62-212.400, F.A.C.; and 1010373-001-AC, Specific Condition 15.]

**A.9.** The water injection (WI) system shall be used when firing No. 2 or superior grade distillate fuel oil for control of NO<sub>x</sub> emissions.

[Rules 62-4.070 and 62-212.400, F.A.C.; and 1010373-001-AC, Specific Condition 16.]

**A.10.** The permittee shall provide manufacturer's emissions performance versus load diagrams for the DLN and wet injection systems prior to their installation. DLN systems shall each be tuned upon initial operation to optimize emissions reductions consistent with normal operation and maintenance practices and shall be maintained to minimize NO<sub>x</sub> emissions and CO emissions, consistent with normal operation and maintenance practices. Operation of the DLN systems in the diffusion-firing mode shall be minimized when firing natural gas.

[Rules 62-4.070 and 62-210.650, F.A.C.; and 1010373-001-AC, Specific Condition 17.]

**Emission Limitations and Standards**

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions A.11. through A.17. are based on the specified averaging time of the applicable test method.}

**A.11.** Following is a summary of the emission limits and required technology. Values for NO<sub>x</sub> are corrected to 15% O<sub>2</sub> on a dry basis. These limits, or their equivalent in terms of lb/hr or NSPS units, are followed by the applicable specific conditions.

POLLUTANT	CONTROL TECHNOLOGY	EMISSION LIMIT
PM/PM <sub>10</sub> , VE	Pipeline Natural Gas Good Combustion	10/17 lb/hr (Gas/Fuel Oil) 10 Percent Opacity (Gas or Fuel Oil)
VOC (not PSD)	Pipeline Natural Gas Good Combustion	1.4 ppmvd (Gas) 7 ppmvw (Fuel Oil)
CO	Pipeline Natural Gas Good Combustion	12 ppmvd (Gas) 20 ppmvd (Fuel Oil)
SO <sub>2</sub> and Sulfuric Acid Mist	Pipeline Natural Gas Low Sulfur Fuel Oil	1 gr S/100 ft <sup>3</sup> (in Gas) 0.05% sulfur, by weight (in Fuel Oil)
NO <sub>x</sub>	Dry Low NO <sub>x</sub> for Natural Gas Wet Injection and limited Fuel Oil usage	9 ppmvd (Gas) 42 ppmvd (Fuel Oil)

[Rules 62-212.400, 62-204.800(7)(b) (Subpart GG), 62-210.200 (Definitions-Potential Emissions) F.A.C.; and 1010373-001-AC, Specific Condition 18.]

**A.12. Nitrogen Oxides (NO<sub>x</sub>) Emissions.**

- While firing Natural Gas. The emission rate of NO<sub>x</sub> in the exhaust gas shall not exceed 9 ppmvd @15% O<sub>2</sub> on a 24 hr block average (of valid hours during which the unit is operated only) as measured by the continuous emission monitoring system (CEMS). Refer to Specific Condition A.23. for a discussion of valid hours contributing to the block average.

In addition, NO<sub>x</sub> emissions calculated as NO<sub>2</sub> shall not exceed 64.1 pounds per hour (at ISO conditions) and 9 ppmvd @15% O<sub>2</sub> to be demonstrated by the initial "new and clean" GE performance stack test.

[Rule 62-212.400, F.A.C.]

- While firing Fuel Oil: The concentration of NO<sub>x</sub> in the exhaust gas shall not exceed 42 ppmvd at 15% O<sub>2</sub> on the basis of a 3-hr average (of valid hour hours during which the unit is actually operated only) as measured by the continuous emission monitoring system (CEMS).

In addition, NO<sub>x</sub> emissions calculated as NO<sub>2</sub> shall not exceed 351 lb/hr (at ISO conditions) and 42 ppmvd @15% O<sub>2</sub> to be demonstrated by stack test.

[Rule 62-212.400, F.A.C.]



- The permittee shall develop a NO<sub>x</sub> reduction plan when the hours of oil firing reach the allowable limit of 1000 hours per year. This plan shall include a testing protocol designed to establish the maximum water injection rate and the lowest NO<sub>x</sub> emissions possible without affecting the actual performance of the gas turbine. The testing protocol shall set a range of water injection rates and attempt to quantify the corresponding NO<sub>x</sub> emissions for each rate and noting any problems with performance. Based on the test results, the plan shall recommend a new NO<sub>x</sub> emissions limiting standard and shall be submitted to the Department's Bureau of Air Regulation and Compliance Authority for review. If the Department determines that a lower NO<sub>x</sub> emissions standard is warranted for oil firing, this permit shall be revised.

[1010373-001-AC, Specific Condition 19.]

**A.13. Carbon Monoxide (CO) Emissions.** The concentration of CO in the stack exhaust gas shall exceed neither 12 ppmvd nor 42.5 lb/hr (at ISO conditions) while firing gas, and neither 20 ppmvd nor 71.4 lb/hr (at ISO conditions) while firing fuel oil. The permittee shall demonstrate compliance with these limits by stack test using EPA Method 10.

[Rule 62-212.400, F.A.C.; and 1010373-001-AC, Specific Condition 20.]

**A.14. Volatile Organic Compounds (VOC) Emissions.** The concentration of VOC in the stack exhaust gas with the combustion turbine operating on natural gas shall exceed neither 1.4 ppmvd nor 2.8 lb/hr (ISO conditions) and neither 7 ppmvw nor 16.2 lb/hr (ISO conditions) while operating on oil to be demonstrated by *initial* stack test using EPA Method 18, 25 or 25A.

[Rule 62-212.400, F.A.C.; and 1010373-001-AC, Specific Condition 21.]

**A.15. Sulfur Dioxide (SO<sub>2</sub>) Emissions.** SO<sub>2</sub> emissions shall be limited by firing pipeline natural gas (sulfur content less than 1 grain per 100 standard cubic feet) or by firing No. 2 or superior grade distillate fuel oil with a maximum of 0.05 percent sulfur, by weight, for 1000 hours per year per unit. Emissions of SO<sub>2</sub> (at ISO conditions) shall not exceed 5 lb/hr (natural gas) and 98.7 lb/hr (fuel oil) as measured by applicable compliance methods described below.

[40 CFR 60 Subpart GG; Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.; and 1010373-001-AC, Specific Condition 22.]

**A.16. Particulate Matter (PM/PM<sub>10</sub>).** PM/PM<sub>10</sub> emissions shall not exceed 10 lb/hr when operating on natural gas and shall not exceed 17 lb/hr when operating on fuel oil. Visible emissions testing shall serve as a surrogate for PM/PM<sub>10</sub> compliance testing.

[Rule 62-212.400, F.A.C.; and 1010373-001-AC, Specific Condition 23.]

**A.17. Visible Emissions (VE).** VE emissions shall serve as a surrogate for PM/PM<sub>10</sub> emissions and shall not exceed 10% opacity.

[Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.; and 1010373-001-AC, Specific Condition 24.]

### Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

**A.18.** Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period for other reasons unless specifically authorized by the Department for longer duration. Operation below 50% output shall be limited to 2 hours per unit cycle (breaker closed to breaker open).

[Rules 62-210.700(1) and (2), F.A.C.; and 1010373-001-AC, Specific Condition 25.]

**A.19.** Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C. These emissions shall be included in the 24-hr average for NO<sub>x</sub>.

[Rule 62-210.700(4), F.A.C.; and 1010373-001-AC, Specific Condition 26.]

**A.20.** Excess Emissions Report. If excess emissions occur due to malfunction, the owner or operator shall notify the Department's Southwest District Office within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Following the NSPS format, 40 CFR 60.7 Subpart A, periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Conditions A.11. and A.12.

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C.; 40 CFR 60.7; and 1010373-001-AC, Specific Condition 27.]

### Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**A.21.** Compliance with the allowable emission limiting standards shall be determined *annually* by using the following reference methods as described in 40 CFR 60, Appendix A (1998 version), and adopted by reference in Chapter 62-204.800, F.A.C.

[1010373-001-AC, Specific Condition 28.]

**A.22.** *Annual* compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on each unit as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior Departmental approval is received in writing.

- EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".
- EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources".

- EPA Reference Method 20, “Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines.” Short-term NO<sub>x</sub> BACT limits (EPA reference Method 7E, “Determination of Nitrogen Oxides Emissions from Stationary Sources”, or RATA test data may be used to demonstrate compliance for *annual* test requirements).

[1010373-001-AC, Specific Condition 29.]

**A.23. Continuous compliance with the NO<sub>x</sub> emission limits.** Continuous compliance with the NO<sub>x</sub> emission limits shall be demonstrated with the CEM system based on the applicable averaging time of 24-hr block average (DLN). Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day. A valid hourly emission rate shall be calculated for each hour in which at least two NO<sub>x</sub> concentrations are obtained at least 15 minutes apart. Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction unless prohibited by Rule 62-210.700, F.A.C. These excess emissions periods shall be reported as required in Specific Conditions **A.18.** and **A.19.**

- All continuous monitoring systems (CEMS) shall be in continuous operation except for breakdowns, repairs, calibration checks, and zero and span adjustments. These CEMS shall meet minimum frequency of operation requirements: one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data average.

[Rules 62-4.070 and 62-210.700, F.A.C., 40 CFR 75 and 40 CFR 60.13; and 1010373-001-AC, Specific Condition 30.]

**A.24. Compliance with the SO<sub>2</sub> and PM/PM<sub>10</sub> emission limits.** Notwithstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas, is the method for determining compliance for SO<sub>2</sub> and PM<sub>10</sub>. For the purposes of demonstrating compliance with the 40 CFR 60.333 SO<sub>2</sub> standard, ASTM methods D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule or natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. However, the applicant is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used when determination of fuel sulfur content is made. Analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1998 version).

[1010373-001-AC, Specific Condition 31.]

**A.25. Compliance with CO emission limit.** *Annual* compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the *annual* RATA testing for the NO<sub>x</sub> CEMS required pursuant to 40 CFR 75.

[1010373-001-AC, Specific Condition 32.]

**A.26. Compliance with the VOC emission limit.** An *initial* test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit and periodic tuning data will be employed as surrogate, and no annual testing is required.

[1010373-001-AC, Specific Condition 33.]

**A.27. Testing procedures.** Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ambient temperature) and 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Procedures for these tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C.

[1010373-001-AC, Specific Condition 34.]

**A.28. Required Number of Test Runs.** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

**A.29. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

**A.30. Applicable Test Procedures.**

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test

observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

**TABLE 297.310-1  
 CALIBRATION SCHEDULE**

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass reference thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calibration liquid in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass reference thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Figures 2-2 and 2-3
Probe Nozzles	Before each test, or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of the last three readings; maximum deviation between readings .004"
Dry gas meter and Orifice Meter	<ol style="list-style-type: none"> <li>1. Full scale: when received, when 5% change observed, annually.</li> <li>2. One point: Semiannually.</li> <li>3. Check after each test series.</li> </ol>	Spirometer or calibrated wet test or dry gas test meter  Comparison check	2%  5%

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

**A.31. Determination of Process Variables.**

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.; and 1010373-001-AC, Specific Condition 46.]

**A.32.** The permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.]

**A.33. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test,

and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

10. An annual compliance test conducted for visible emissions shall not be required for units exempted from permitting at Rule 62-210.300(3)(a), F.A.C., or units permitted under the General Permit provisions at Rule 62-210.300(4), F.A.C.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.  
[Rule 62-297.310(7), F.A.C.; SIP approved; and 1010373-001-AC, Specific Condition 36.]

## Monitoring of Operations

### Continuous Monitoring Requirements

**A.34. Continuous Monitoring System**. The permittee shall calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from these units. Upon request from EPA or DEP, the CEMS emission rates for NO<sub>x</sub> on these units shall be corrected to ISO conditions to demonstrate compliance with the NO<sub>x</sub> standard established in 40 CFR 60.332.

[Rules 62-204.800, 62-210.700, 62-4.130, 62-4.160(8), F.A.C.; 40 CFR 75 and 40 CFR 60.7; and 1010373-001-AC, Specific Condition 40.]

**A.35. CEMS for reporting excess emissions**. Excess Emissions and Monitoring System Performance Reports shall be submitted as specified in 40 CFR 60.7(c). CEM monitor downtime shall be calculated and reported according to the requirements of 40 CFR 60.7(c)(3) and 40CFR 60.7(d)(2). Periods when NO<sub>x</sub> emissions (ppmvd @ 15% oxygen) are above the BACT standards, listed in Specific Conditions Nos. **A.11.** and **A.12.**, shall be reported to the Department's Southwest District Office within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternatively by facsimile within one working day).

[1010373-001-AC, Specific Condition 41.]

**A.36. CEMS in lieu of Water to Fuel Ratio**. The NO<sub>x</sub> CEMS shall be used in lieu of the water/fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1998version). The calibration of the water/fuel monitoring device



required in 40 CFR 60.335 (c)(2) (1998 version) will be replaced by the 40 CFR 75 certification tests of the NO<sub>x</sub> CEMS.

[1010373-001-AC, Specific Condition 42.]

**A.37. Continuous Monitoring Certification and Quality Assurance Requirements.** The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the Department's Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.

[1010373-001-AC, Specific Condition 43.]

**A.38. Natural Gas Monitoring Schedule.** A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following requirements are met:

- The permittee shall apply for an Acid Rain permit (part) within the deadlines specified in 40 CFR 72.30. (See Section IV, Acid Rain Part, of this permit. The Phase II Acid Rain Permit Application for the facility was deemed complete on November 29, 2000.)
- The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 1 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
- Each unit shall be monitored for SO<sub>2</sub> emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO<sub>2</sub> emissions must be accounted for as required pursuant to 40 CFR 75.11(d).

[1010373-001-AC, Specific Condition 44.]

**A.39. Fuel Oil Monitoring Schedule.** The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 fuel oil received at this facility an analysis which reports the sulfur content of the fuel shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analysis was conducted and shall comply with the requirements of 40 CFR 60.335(d).

[1010373-001-AC, Specific Condition 45.]

### **Training Requirements**

**A.40. Operating Procedures.** Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment.

[Rule 62-4.070(3), F.A.C.; and 1010373-001-AC, Specific Condition 11.]

### **Recordkeeping and Reporting Requirements**

**A.41. Test Notification.** The Department's Southwest District Office shall be notified, in writing, at least 30 days prior to the initial performance tests and at least 15 days before annual compliance test(s).

[1010373-001-AC, Specific Condition 35.]

**A.42. Test Results.** Compliance test results shall be submitted to the Department's Southwest District Office no later than 45 days after completion of the last test run.

[Rule 62-297.310(8), F.A.C.; and 1010373-001-AC, Specific Condition 37.]

**A.43. Records.** All measurements, records, and other data required by this permit shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to the Department upon request.

[1010373-001-AC, Specific Condition 38.]

**A.44. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

**A.45. Test Reports.**

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

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.

9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  10. The number of points sampled and configuration and location of the sampling plane.
  11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  12. The type, manufacturer and configuration of the sampling equipment used.
  13. Data related to the required calibration of the test equipment.
  14. Data on the identification, processing and weights of all filters used.
  15. Data on the types and amounts of any chemical solutions used.
  16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  18. All measured and calculated data required to be determined by each applicable test procedure for each run.
  19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
  20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
  21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
- [Rule 62-297.310(8), F.A.C.; and 1010373-001-AC, Specific Condition 39.]

**Subsection B. This section addresses the following emissions unit.**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-004	Fuel Storage Tank.

This emissions unit consists of one 2.8 million gallon distillate fuel oil storage tank.

**The following specific conditions apply to the emissions unit listed above:**

**B.1.** Emission Unit -004, Fuel Storage Tank, shall comply with all applicable provisions of 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels, adopted by reference in Rule 62-204.800, F.A.C.  
[Rule 62-204.800(7)(b), F.A.C.; and 1010373-001-AC, Specific Condition 5.]

**Essential Potential to Emit (PTE) Parameters**

**B.2.** Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

**Recordkeeping and Reporting Requirements**

**B.3.** The permittee shall maintain records on site for storage vessel identification number -004 that includes the date of construction, the material storage capacity, and type of material stored for the life of this storage vessel.  
[40 CFR 60.116b(b)]

**Section IV. Acid Rain Part.**

**Shady Hills Generating Station**

**ORIS code: 55414**

The emissions units listed below are regulated under Phase II of the Federal Acid Rain Program.

<b>E.U. ID No.</b>	<b>Description</b>
-001	One nominal 170 Megawatt Gas Simple-Cycle Combustion Turbine-Electrical Generator
-002	One nominal 170 Megawatt Gas Simple-Cycle Combustion Turbine-Electrical Generator
-003	One nominal 170 Megawatt Gas Simple-Cycle Combustion Turbine-Electrical Generator

1. The Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

a. DEP Form No. 62-210.900(1)(a), version 07/01/95, dated November 21, 2000, and deemed complete by the Department on November 29, 2000.  
 [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

2. Sulfur dioxide (SO<sub>2</sub>) allowance allocations for each Acid Rain unit are:

<b>E.U. ID No.</b>	<b>EPA ID #</b>	<b>Year</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
-001	<b>GT 101</b>	SO <sub>2</sub> allowances to be determined by U.S. EPA.	0	0	0	0	0
-002	<b>GT 201</b>	SO <sub>2</sub> allowances to be determined by U.S. EPA.	0	0	0	0	0
-003	<b>GT 301</b>	SO <sub>2</sub> allowances to be determined by U.S. EPA.	0	0	0	0	0

3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

c. Allowances shall be accounted for under the Federal Acid Rain Program.  
[Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]

4. Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.  
[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

**Appendix H-1. Permit History/ID Number Changes.**

Permit History (for tracking purposes):

E.U. ID No.	Description	Permit No.	Issue Date	Expiration Date	Comments
-001	Simple-Cycle Combustion Turbine	1010373-001-AC (PSD-FL-280) 1010373-002-AC	1/13/00  10/19/00	7/1/02	
-002	Simple-Cycle Combustion Turbine	1010373-001-AC (PSD-FL-280) 1010373-002-AC	1/13/00  10/19/00	7/1/02	
-003	Simple-Cycle Combustion Turbine	1010373-001-AC (PSD-FL-280) 1010373-002-AC	1/13/00  10/19/00	7/1/02	
-004	Fuel Oil Storage Tank	1010373-001-AC (PSD-FL-280) 1010373-002-AC	1/13/00  10/19/00	7/1/02	
-001 -002 -003 -004	All of the above.	1010373-003-AV	01/01/03	12/31/07	Initial Title V Permit

## Appendix I-1. List of Insignificant Emissions Units and/or Activities.

Mirant Corporation  
Shady Hills Generating Station

Permit Revision No. 1010373-004-AV

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

### Brief Description of Emissions Units and/or Activities:

1. Operation of a CO <sub>2</sub> based fire protection system to be used in case of emergency fire in or near the combustion turbines.
2. Operation of an electric based fire protection system for the building. The unit also contains a small space heater.
3. Operation of a 13.5 MMBtu/hr indirect fired fuel gas heater to prevent the natural gas from freezing.
4. Storage operations for the fuel oil storage locations and the fuel oil truck unloading area.
5. Miscellaneous maintenance and cleaning and painting of the building including the control room, maintenance shop, storage warehouse, offices and their contents.
6. Miscellaneous heaters.
7. Miscellaneous general-purpose internal combustion engines for routine facility maintenance and/or equipment malfunctions.
8. Surface coating operations using VOCs.
9. Water analysis tasks to ensure proper operation of the water injection system and the combustion turbine cooling processes.
10. Storm water retention basin maintenance.



**Table 1-1. Summary of Air Pollutant Standards and Terms.**

Mirant Corporation Shady Hills Generating Station	Permit No. 1010373-004-AV Facility ID No. 1010373
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These tables summarize information for convenience purposes only, and do not supersede any of the terms or conditions of this permit.

E.U. ID Nos.	Brief Description	
-001	Simple-Cycle Combustion Turbine	The three gas turbines shall operate no more than an average of 3390 hours per unit during any calendar year, and no more than an average of 1000 hours per unit on fuel oil during any calendar year.
-002	Simple-Cycle Combustion Turbine	
-003	Simple-Cycle Combustion Turbine	

Pollutant	Fuels	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
		Standard(s)	lbs./hour	lbs./hour	TPY		
Visible Emissions	gas	10% Opacity				1010373-001-AC	A.17.
	oil						
Particulate Matter	gas		10		61.5	1010373-001-AC	A.16.
	oil		17				
Carbon Monoxide	gas	12 ppmvd 20 ppmvd	42.5		259.5	1010373-001-AC	A.13.
	oil		71.4				
Sulfur Dioxide	gas		5		165.9	1010373-001-AC	A.15.
	oil		98.7				
Nitrogen Oxides	gas	9 ppmvd 42 ppmvd	64.1		756	1010373-001-AC	A.12.
	oil		351				
VOCs	gas	1.4 ppmvd 7 ppmvw	2.8			1010373-001-AC	A.14.
	oil		16.2				

Notes:

\*The "Equivalent Emissions" listed are for informational purposes only.

**Table 2-1. Summary of Compliance Requirements.**

Pollutant	Fuels	Compliance Method	Testing Time Frequency		CMS*	See permit condition(s)
Particulate Matter	gas oil	VE emissions shall serve as a surrogate.				A.17.
Carbon Monoxide	gas oil	EPA Method 10	Annual			A.22.
Sulfur Dioxide	gas oil	Fuel sampling and analysis	Daily			A.24.
Nitrogen Oxides	gas oil	CMS*	Continuous		Yes	A.23.
VOCs	gas oil	EPA Method 18, 25, or 25A	Initial test only.			A.14., A.26.

Notes:

\*CMS [=] continuous monitoring system

## MEMORANDUM

TO: Michael G. Cooke

FROM: Trina L. Vielhauer 

DATE: December 17, 2003

SUBJECT: FINAL Title V Air Operation Permit  
No. **1010373-004-AV**  
Mirant Corporation  
**Shady Hills Generating Station**

This is a Title V Air Operation Permit Revision for the subject facility.

This facility consists of three, dual-fuel, nominal 170 megawatt (MW) General Electric model PG7241FA combustion turbine-electrical generators, three 75-foot exhaust stacks, and one 2.8-million gallon fuel oil storage tank. The combustion turbine units can operate in simple-cycle mode and intermittent duty mode. The units are equipped with Dry Low NO<sub>x</sub> (DLN-2.6) combustors and wet injection capability.

The only comment received on the DRAFT Permit was from the permittee, and it was resolved. *No comments* were received from U.S. EPA, Region 4, regarding the PROPOSED Permit.

I recommend your signature.

Attachment

TLV/tbc