



MEMORANDUM

To: Trina Vielhauer
Through: Al Linero 
From: Tom Cascio 
Date: September 15, 2004
Subject: **PROPOSED Title V Permit Revision No. 0970071-005-AV**
Reliant Energy Osceola, L.L.C. Facility

This permit revision implements the changes from air construction permit 0970071-006-AC. The purposes of the revision are to: (a) clarify the wording concerning performance testing requirements, (b) remove the requirement of providing an analysis of the nitrogen content of fuel oil received at the facility, and (c) change the time frame for compliance with a given heat input ratio (i.e., less than or equal to one) of fuel oil to natural gas from a consecutive 12-months to a consecutive 24-months.

The Public Notice of Intent to Issue was published in the Orlando Sentinel on August 11, 2004. *No comments* were received by the Department from the public, U.S.EPA, or the applicant.

I recommend your approval and forwarding to Barbara for posting on the Internet for EPA's review.



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

September 15, 2004

Mr. Terry E. Gish
Responsible Official
Reliant Energy Osceola, L.L.C.
7800 U.S. Highway One South
Titusville, FL 32780

Re: PROPOSED Title V Air Operation Permit Revision No. 0970071-005-AV
Reliant Energy Osceola, L.L.C. Facility

Dear Mr. Gish:

One copy of the "PROPOSED PERMIT REVISION DETERMINATION" for the Reliant Energy Osceola, L.L.C. Facility, located at 5200 West Holopaw Road, St. Cloud, Osceola County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit revision has become a PROPOSED permit revision.

An electronic version of this document 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/eproducts/airpermit/AirSearch.asp>

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit revision is made by the U.S.EPA within 45 days, the PROPOSED permit revision will become a FINAL permit revision no later than 55 days after the date on which the PROPOSED permit revision was mailed (posted) to U.S.EPA. If U.S.EPA has an objection to the PROPOSED permit revision, the FINAL permit revision will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn. If you have any questions, please contact Tom Cascio at 850/921-9526.

Sincerely,

Trina L. Vielhauer, Chief
Bureau of Air Regulation

TLV/tbc

Enclosures

Copy furnished to:

Mr. Len Kozlov, P.E., Central District Office
U.S.EPA, Region 4 (INTERNET E-mail Memorandum)

"More Protection, Less Process"

Printed on recycled paper.

PROPOSED Permit Revision Determination
Reliant Energy Osceola, L.L.C.
Reliant Energy Osceola, L.L.C. Facility
Title V Permit Revision No. **0970071-005-AV**

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" to the Reliant Energy Osceola, L.L.C. for the Reliant Energy Osceola, L.L.C. Facility, located at 5200 West Holopaw Road, St. Cloud, Osceola County, was clerked on July 7, 2004. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was published in the Orlando Sentinel on August 11, 2004. The DRAFT Title V Air Operation Permit Revision was available for public inspection at the Department's Central District office in Orlando, and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was received on August 23, 2004.

II. Public Comment(s).

No comments were received concerning the DRAFT Title V Operation Permit Revision.

III. Conclusion.

The permitting authority hereby issues PROPOSED Permit Revision No. **0970071-005-AV**, with no changes.

Reliant Energy Osceola, L.L.C.

Reliant Energy Osceola, L.L.C. Facility

Facility ID No. **0970071**

Osceola County

PROPOSED Permit Revision No. 0970071-005-AV

Permitting Authority:

State of Florida

Department of Environmental Protection

Division of Air Resource Management

Bureau of Air Regulation

Permitting South 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

Central District Office

3319 Maguire Boulevard, Suite 232

Orlando, Florida 32803-3767

Telephone: 407/894-7555

Fax: 407/897-2966

Title V Air Operation Permit Revision
PROPOSED Permit Revision No. 0970071-005-AV

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Permittee:

Reliant Energy Osceola, L.L.C.
7800 U.S. Highway One South
Titusville, Florida 32780

PROPOSED Permit No.: 0970071-005-AV**Facility ID No.:** 0970071**SIC Nos.:** 49, 4911**Project:** Title V Air Operation Permit Revision

This permit is for the operation of the Reliant Energy Osceola, L.L.C. facility. This facility is located at 5200 West Holopaw Road, St. Cloud, Osceola County; UTM Coordinates: Zone 17, 490.43 km East and 3111.31 km North; and, Latitude: 28° 07' 44" North and Longitude: 81° 05' 50" West.

This Title V Air Operation Permit 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 U-1, List of Unregulated Emissions Units and/or Activities

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

PHASE II ACID RAIN APPLICATION/COMPLIANCE PLAN (received November 30, 1999)

Effective Date: January 1, 2003**Revision Effective Date:****Renewal Application Due Date:** July 5, 2007**Expiration Date:** December 31, 2007

Michael G. Cooke, Director
Division of Air Resource
Management

Section I. Facility Information.

Subsection A. Facility Description.

The regulated emissions units at the facility include three nominal 170 megawatts (MW) simple-cycle General Electric PG7241 FA combustion turbines. The turbines use low NO_x technologies. The facility utilizes pipeline natural gas as its primary fuel source with distillate fuel oil serving as a backup fuel. The units operate in intermittent duty.

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

Based on the Title V permit revision application received on April 8, 2004, this facility is 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	170 MW Simple-Cycle Combustion Turbine
-002	170 MW Simple-Cycle Combustion Turbine
-003	170 MW Simple-Cycle Combustion Turbine

Unregulated Emissions Units and/or Activities

E.U. ID No.	Brief Description of Emissions Units and/or Activity
-005	Two, pipeline natural gas heaters

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:

Title V Permit Revision Application received on April 8, 2004.

Revision to application received on June 18, 2004.

DRAFT Title V Permit Revision clerked on July 7, 2004.

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 1515
Lanham-Seabrook, Maryland 20703-1515
Telephone: 301/429-5018

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. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.

[Rule 62-213.440(1), F.A.C.]

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. 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.]

8. Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.

[Rule 62-296.320(4)(c)2., F.A.C.]

{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).}

9. 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.]

10. 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.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-4, TITLE V CONDITIONS).}

11. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Central District office.

Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-2966

12. 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

13. 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.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-001	170 MW Simple-Cycle Combustion Turbine
-002	170 MW Simple-Cycle Combustion Turbine
-003	170 MW Simple-Cycle Combustion Turbine

The emissions units addressed in this subsection are three dual-fuel nominal 170 megawatt (MW) General Electric PG7241FA combustion turbine-electrical generators with three 75-foot stacks. Emissions from the new CT's are controlled by Dry Low NO_x (DLN-2.6) combustors when operating on natural gas, and wet injection when firing fuel oil. Inherently clean fuels and good combustion practices are employed to control all pollutants.

{Permitting note(s): The emissions units are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated December 28, 1999. Emissions Units -001 and -002 began operation in 2001, Emissions Unit -003 began operation in 2002.}

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

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum heat input rates, based on the lower heating value (LHV) of each fuel to each Unit (1-3) at ambient conditions of 19°F temperature, 60% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,709 million Btu per hour (MMBtu/hr) when firing natural gas, nor 1,942 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, PSD-FL-273]

A.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **A.31**.

[Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation. Fuels.

Only pipeline natural gas or maximum 0.05 percent sulfur fuel oil No. 2 or superior grade of distillate fuel oil shall be fired in these units. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)] {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}. 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 24-month period.

[Rules 62-212.400, 62-212.410, and 62-213.410, F.A.C.; and PSD-FL-273A, Specific Condition 14.]

A.4. Hours of Operation. Each stationary gas turbine shall only operate up to 3,000 hours in any consecutive twelve month period, of which up to 750 hours may be on fuel oil.

[Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-273]

Control Technology

A.5. Dry Low NO_x (DLN-2.6) combustors shall be installed on the stationary combustion turbine to control nitrogen oxides (NO_x) emissions while firing natural gas.

[PSD-FL-273]

A.6. A water injection (WI) system shall be installed for use when firing No. 2 or superior grade distillate fuel oil for control of NO_x emissions.

[PSD-FL-273]

A.7. 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_x 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.

[PSD-FL-273]

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.}

A.8. Pursuant to Rule 62-212.410, F.A.C., BACT, the maximum allowable emission limitations from each combustion turbine, when firing natural gas or No. 2 fuel oil, shall not exceed the following:

Nitrogen Oxides (NO_x) Emissions:

- While firing Natural Gas: The emission rate of NO_x in the exhaust gas shall not exceed 10.5 ppmvd @15% O₂ on a 24 hr block average as measured by the continuous emission monitoring system (CEMS). In addition, NO_x emissions calculated as NO₂ shall not exceed 60 pounds per hour (at ISO conditions).
- While firing Fuel oil: The concentration of NO_x in the exhaust gas shall not exceed 42 ppmvd at 15% O₂ on the basis of a 3-hr average as measured by the continuous emission monitoring system (CEMS). In addition, NO_x emissions calculated as NO₂ shall not exceed 323 lb/hr (at ISO conditions) and 42 ppmvd @15% O₂ to be demonstrated by stack test.

The permittee shall develop a NO_x reduction plan when the hours of oil firing on any individual combustion turbine reaches 750 hours. This plan shall include a testing protocol designed to establish the maximum water injection rate and the lowest NO_x 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_x emissions for each rate and noting any problems with performance. Based on the test results, the plan shall recommend a new NO_x 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_x emissions standard is warranted for oil firing, this permit shall be revised.

Carbon Monoxide (CO) Emissions: The concentration of CO in the stack exhaust gas shall exceed neither 10.5 ppmvd and 36.2 lb/hr (at ISO conditions) while firing gas and neither 20 ppmvd and 70.0 lb/hr (at ISO conditions) while firing oil. The permittee shall demonstrate compliance with these limits by stack test using EPA Method 10.

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 1.5 ppmvw nor 3.0 lb/hr (ISO conditions) and neither 3.7 ppmvw nor 8.0 lb/hr (ISO conditions) while operating on oil to be demonstrated by initial stack test using EPA Method 18, 25 or 25A.

Sulfur Dioxide (SO₂) Emissions: SO₂ emissions shall be limited by firing pipeline natural gas (sulfur content less than 2 grains per 100 standard cubic foot) or by firing No. 2 or superior grade distillate fuel oil with a maximum 0.05 percent sulfur for 750 hours per year per unit. Emissions of SO₂ (at ISO conditions) shall not exceed 1.1 lb/hr (natural gas) and 104.3 lb/hr (fuel oil) as measured by applicable compliance methods described below.

Particulate Matter (PM/PM₁₀) PM/PM₁₀ emissions shall not exceed 18.0 lb/hr when operating on natural gas and shall not exceed 34.0 lb/hr when operating on fuel oil. Visible emissions testing shall serve as a surrogate for PM/PM₁₀ compliance testing.

Visible Emissions (VE): VE emissions shall serve as a surrogate for PM/PM₁₀ emissions and shall not exceed 10 percent opacity.

[PSD-FL-273]

Excess Emissions

A.9. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period 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).

[Rule 62-210.700(1), F.A.C.; and, PSD-FL-273]

A.10. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. These emissions shall be included in the 24-hr average for NO_x.

[Rule 62-210.700(4), F.A.C.; and, PSD-FL-273]

A.11. Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.

[Rule 62-210.700(5), F.A.C.]

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

Monitoring of Operations

A.12. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

A.13. Continuous Monitoring System: The permittee shall install, 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_x on these Units shall be corrected to ISO conditions to demonstrate compliance with the NO_x standard established in 40 CFR 60.332.

[PSD-FL-273]

A.14. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG and using water injection to control NO_x emissions shall operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within ± 5.0 percent and shall be approved by the Administrator. The NO_x 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 (1998 version). 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_x CEMS.
[40 CFR 60.334(a); and, PSD-FL-273]

A.15. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

- (1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.
- (2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).

See Specific Conditions **A.28.** and **A.29.**

[40 CFR 60.334(b)(1) & (2); and PSD-FL-273A, Specific Condition 46.]

A.16. 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.]

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.17. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired. **This requirement is satisfied through the use of the nitrogen oxides continuous emissions monitor.** See Specific Condition **A.38**.
[40 CFR 60.335(a); and, guidance from EPA Region 4 dated May 26, 2000]

A.18. During performance tests to determine compliance, measured NO_x emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$\text{NO}_x = [\text{NO}_x \text{ obs}] [(P_{\text{ref}})^{0.5} / P_{\text{obs}}] e^{19} [H_{\text{obs}} - 0.00633] [288^\circ \text{K} / T_{\text{amb}}] 1.53$$

where:

NO_x = Emissions of NO_x at 15 percent oxygen and ISO standard ambient conditions.

NO_x obs = Measured NO_x emission at 15 percent oxygen, ppmv.

P_{ref} = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure.

P_{obs} = Measured combustor inlet absolute pressure at test ambient pressure.

e = Transcendental constant (2.718)

H_{obs} = Specific humidity of ambient air at test.

T_{amb} = Temperature of ambient air at test.

See Specific Condition **A.38**.

[40 CFR 60.335(c)(1)]

A.19. When determining compliance with 40 CFR 60.332, Subpart GG - Standards of Performance for Stationary Gas Turbines, the monitoring device of 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted NO_x standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. See Specific Condition **A.14**.

[40 CFR 60.335(c)(2)]

A.20. The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 as follows:

c. U.S. EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO_x emissions shall be determined at each of the load conditions specified in 40 CFR 60.335(c)(2). See Specific Condition **A.38**.

[40 CFR 60.335(c)(3)]

A.21. Initial performance tests (for both fuels) shall be performed on each unit while firing natural gas as well as while firing oil. The Department may require the permittee to conduct additional tests after major replacement or repair of any air pollution control equipment, such as the water injection system, DLN combustors, etc. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.
[PSD-FL-273A, Specific Condition 29.]

A.22. Volatile Organic Compounds. The initial test method for volatile organic compounds shall be EPA Method 18, 25 and/or 25A, incorporated by reference in Chapter 62-297, F.A.C. 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.
[PSD-FL-273]

A.23. Carbon Monoxide. The initial and annual test method for carbon monoxide shall be EPA Method 10, incorporated by reference in Chapter 62-297, F.A.C. An initial test for CO shall be conducted concurrently with the initial NO_x test, as required. The initial NO_x and CO test results shall be the average of three valid one-hour runs. 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_x CEMS required pursuant to 40 CFR 75.
[PSD-FL-273]

A.24. PM/PM₁₀. Visible emissions testing shall serve as a surrogate for PM/PM₁₀ compliance testing.
[PSD-FL-273]

A.25. Nitrogen Oxides. The initial and annual test method for NO_x shall be EPA Method 20 or EPA Method 7E, incorporated by reference in Chapter 62-297, F.A.C. Initial test only for compliance with 40CFR60 Subpart GG and short-term NO_x 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). Annual compliance demonstration via EPA Method 7E shall not be required upon satisfactory demonstration that the emission unit is operating at 9 ppmvd NO_x emissions or less. This demonstration shall consist of an average of each of all valid CEMS 24-hour block average compliance periods (described in Specific Condition A.35.) for which the unit operated on natural gas since the last compliance test requirement. This demonstration shall be provided within the test notification letter (described in Specific Condition A.37.), but does not relieve the permittee of the annual CEMS RATA requirement.
[PSD-FL-273]

A.26. The owner or operator shall determine compliance with the liquid fuel sulfur content standard of 0.05 percent, by weight, and the gaseous fuel sulfur dioxide standard as follows: ASTM D 2880-96, or the latest edition shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator. See Specific Condition **A.27**.
[40 CFR 60.335(d)]

A.27. SO₂ and PM/PM₁₀. Notwithstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas, is the method for determining compliance for SO₂ and PM₁₀. For the purposes of demonstrating compliance with the 40 CFR 60.333 SO₂ 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).
[PSD-FL-273]

A.28. 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), see Specific Condition **A.15.**, provided the following requirements are met:

- The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
- 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 2 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
- Each unit shall be monitored for SO₂ 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, SO₂ emissions must be accounted for as required pursuant to 40 CFR 75.11(d).
[PSD-FL-273]

A.29. 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 analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d). See Specific Condition **A.26**.
[PSD-FL-273A, Specific Condition 46.]

A.30. Visible Emissions. The initial and annual test method for visible emissions shall be EPA Method 9, incorporated by reference in Chapter 62-297, F.A.C.
[PSD-FL-273]

A.31. Operating Rate During Testing. 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. [Rule 62-297.310(2), F.A.C.; and, PSD-FL-273]

A.32. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
[40 CFR 60.8(c)]

A.33. 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.34. 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.35. 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:
 - 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, attached to this permit.
[Rule 62-297.310(4), F.A.C.]

A.36. 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.37. 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.

8. Any combustion turbine that does not operate for more than 400 hours per year shall term of its air operation permit.

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.

(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.; and, SIP approved]

Continuous Monitoring Requirements

A.38. Continuous compliance with the NO_x emission limits. Continuous compliance with the NO_x 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_x 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 62-210.700 F.A.C. These excess emissions periods shall be reported as required in Conditions **A.9.** and **A.10.**

[PSD-FL-273]

A.39. A performance evaluation of the CEMS shall be conducted during any required performance test or within 30 days thereafter in accordance with the applicable performance specifications of 40 CFR 60, Appendix B and at other times as required by the Administrator.

[40 CFR 60.13(c)]

A.40. The zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts shall be checked at least once daily in accordance with a written procedure. The zero and span shall, at a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications of 40 CFR 60, Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified.

[40 CFR 60.13(d)(1)]

A.41. Reserved.

A.42. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 CFR 60.13(e)(2)]

A.43. All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

[40 CFR 60.13(f)]

A.44. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdown, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g. ppm pollutant and percent O₂ or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit. (e.g. rounded to the nearest 1 percent opacity).

[40 CFR 60.13(h)]

Record Keeping and Reporting Requirements

A.45. The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

A.46. Excess Emissions Report. If excess emissions occur due to malfunction, the owner or operator shall notify DEP's Central District 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 Condition **A.8.**

[PSD-FL-273]

A.47. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

A.48. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:

Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the permitted nitrogen oxide standard by the initial performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the initial performance test. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a). See Specific Condition **A.14.**

[Rule 62-296.800, F.A.C.; and, 40 CFR 60.334(c)(1)]

A.49. The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate).

Written reports of excess emissions shall include the following information:

- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), & (4)]

A.50. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) & (2)]

A.51. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)]

A.52. CEMS for reporting excess emissions: Periods when NO_x emissions (ppmvd @ 15% oxygen) are above the BACT standards, listed in Specific Condition A.8., shall be reported to the DEP Central District 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).

[PSD-FL-273]

A.53. 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.54. All recorded data shall be maintained on file by the Source for a period of five years.
[Rule 62-213.440, F.A.C.]

A.55. Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection.
[40 CFR 60.7(f)]

A.56. Hours of Operation and Fuel Usage: Reliant shall maintain records on-site of each CT's "hours of operation by fuel type" and "BTU input by fuel type" for each month. These shall be tabulated for each consecutive 12-month period (as per specific permit conditions identified herein) and made available upon request for Department use. Additionally, this data shall be submitted annually with the AOR.
[PSD-FL-273]

A.57. 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.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Miscellaneous Requirements.

A.58. 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.59. Circumvention. 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]

Section IV. This section is the Acid Rain Part.

Operated by: Reliant Energy Osceola, L.L.C.
ORIS code: 55192

Subsection A. This subsection addresses Acid Rain, Phase II.

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

E.U. ID No.	Brief Description
-001	170 MW Simple-Cycle Combustion Turbine
-002	170 MW Simple-Cycle Combustion Turbine
-003	170 MW Simple-Cycle Combustion Turbine

A.1. The Phase II permit applications submitted for this facility, as approved by the Department, are a part of this permit. The owners and operators of these Phase II 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).
 [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations requirements for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2003	2004	2005	2006	2007
-001	**OSC1	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	0*	0*	0*	0*	0*
-002	**OSC2	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	0*	0*	0*	0*	0*
-003	**OSC3	SO ₂ allowances, under Table 2 or 3 of 40 CFR Part 73	0*	0*	0*	0*	0*

* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

A.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.

1. 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.

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

3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

A.4. Where an applicable requirement of the Act is more stringent than an applicable requirement of 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, Definitions - Applicable Requirements, F.A.C.]

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STATEMENT OF BASIS

Reliant Energy Osceola, L.L.C.
Reliant Energy Osceola, L.L.C. Facility
Facility ID No. **0970071**
Osceola County

Title V Air Operation Permit Revision
Permit No. **0970071-005-AV**

This Title V air operation permit 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, simple cycle combustion turbines.

The emissions units are three dual-fuel nominal 170 megawatt (MW) General Electric PG7241FA combustion turbine-electrical generators with three 75-foot stacks. Emissions from the CT's are controlled by Dry Low NO_x (DLN-2.6) combustors when operating on natural gas and wet injection when firing fuel oil. Inherently clean fuels and good combustion practices are employed to control all pollutants. The emissions units are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated December 28, 1999. The simple-cycle combustion turbines began operation in 2002.

This revision is to: (a) clarify the wording concerning performance testing requirements, (b) remove the requirement of providing an analysis of the nitrogen content of fuel oil received at the facility, and (c) change the time frame for compliance with a given heat input ratio of fuel oil to natural gas from a consecutive 12-months to a consecutive 24-months.

Specific conditions established in Title V Air Operation Permit No. 0970071-004-AV, and based on an AC permitting action No. 0970071-006-AC, are changed as follows:

Specific Condition **A.3.**

From:

A.3. Methods of Operation. Fuels.

Only pipeline natural gas or maximum 0.05 percent sulfur fuel oil No. 2 or superior grade of distillate fuel oil shall be fired in these units. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)] {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}. 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.

[Rules 62-212.400, 62-212.410, and 62-213.410, F.A.C.; and, PSD-FL-273]

To:

A.3. Methods of Operation. Fuels.

Only pipeline natural gas or maximum 0.05 percent sulfur fuel oil No. 2 or superior grade of distillate fuel oil shall be fired in these units. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)] {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}. 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 24-month period.

[Rules 62-212.400, 62-212.410, and 62-213.410, F.A.C.; and PSD-FL-273A, Specific Condition 14.]

Specific Condition A.15.

From:

A.15. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

- (1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.
- (2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).

See Specific Conditions **A.28.** and **A.29.**

[40 CFR 60.334(b)(1) & (2)]

To:

A.15. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

- (1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.
- (2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected

facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).

See Specific Conditions **A.28.** and **A.29.**

[40 CFR 60.334(b)(1) & (2); and PSD-FL-273A, Specific Condition 46.]

Specific Condition **A.21.**

From:

A.21. Initial performance tests (for both fuels) shall be performed on each unit while firing natural gas as well as while firing oil. Initial tests shall also be conducted after any modifications (and shake down period not to exceed 100 days after re-starting the CT) of air pollution control equipment such as change or tuning of combustors. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

[PSD-FL-273]

To:

A.21. Initial performance tests (for both fuels) shall be performed on each unit while firing natural gas as well as while firing oil. The Department may require the permittee to conduct additional tests after major replacement or repair of any air pollution control equipment, such as the water injection system, DLN combustors, etc. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

[PSD-FL-273A, Specific Condition 29.]

Specific Condition **A.29.**

From:

A.29. 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 and nitrogen content of the fuel shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d), see Specific Condition **A.26.**

[PSD-FL-273]

To:

A.29. 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 analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d). See Specific Condition **A.26.**

[PSD-FL-273A, Specific Condition 46.]

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

Based on the Title V permit revision application received April 8, 2004, this facility is a major source of hazardous air pollutants (HAPs).

Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Reliant Energy Osceola, L.L.C.
Reliant Energy Osceola, L.L.C. Facility

Permit No. **0970071-005-AV**
Facility ID No. **0970071**

Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘insignificant emissions units’.

<u>E.U. ID No.</u>	<u>Brief Description of Emissions Units and/or Activity</u>
-005	Pipeline natural gas heaters (2)

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

Reliant Energy Osceola, L.L.C.
Reliant Energy Osceola, L.L.C. Facility

Permit No. **0970071-005-AV**
Facility ID No. **0970071**

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. Emergency diesel fire water pump
2. Distillate fuel oil truck unloading equipment
3. Two, 1.5 million gallon distillate fuel oil storage tank subject, only, to the recordkeeping requirements of 40CFR60, Subpart Kb
4. Oil/water separators (2)
5. Percolation pond
6. Underground storage tanks for turbine wash water (3)
7. Underground storage tanks for distillate fuel oil, turbine cold startup/trip out (3)
8. Cooling towers (3)
9. Miscellaneous oil-filled transformers

Reliant Energy Osceola, L.L.C
Reliant Energy Osceola, L.L.C. Facility
Permit No. 0970071-005-AV

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

Permit History (for tracking purposes):

E.U. ID No.	Description	Permit No.	Issue Date	Expiration Date
-001 -002 -003	Three 170 MW Simple-Cycle Combustion Turbines	0970071-001-AC (PSD-FL-273)	12/28/99	12/28/04
		0970071-004-AV (Initial Title V Permit)	1/01/03	12/31/07
		0970071-006-AC (PSD-FL-273A)		

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

Reliant Energy Osceola, L.L.C.
 Reliant Energy Osceola, L.L.C. Facility

Permit No.: 0970071-005-AV
 Facility ID No.: 0970071

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
[-001]	170 MW Simple-Cycle Combustion Turbine
[-002]	170 MW Simple-Cycle Combustion Turbine
[-003]	170 MW Simple-Cycle Combustion Turbine

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
VE	All	3,000	10% Opacity					PSD-FL-273	III.A.8.
NO _x	Gas	3,000	10.5 ppmvd	60.0		90.0		PSD-FL-273	III.A.8.
NO _x	Oil	750	42 ppmvd	323		121.1		PSD-FL-273	III.A.8.
VOC	Gas	3,000	1.5 ppmvw	3.0		4.5		PSD-FL-273	III.A.8.
VOC	Oil	750	3.7 ppmvw	8.0		3.0		PSD-FL-273	III.A.8.
CO	Gas	3,000	10.5 ppmvd	36.2		54.3		PSD-FL-273	III.A.8.
CO	Oil	750	20 ppmvd	70.0		26.3		PSD-FL-273	III.A.8.
PM / PM ₁₀	Gas	3,000		18.0		27.0		PSD-FL-273	III.A.8.
PM / PM ₁₀	Oil	750		34.0		12.6		PSD-FL-273	III.A.8.
SO ₂	Gas	3,000	2 gr./ 100 cf	1.1		1.65		PSD-FL-273	III.A.8.
SO ₂	Oil	750	0.05% Sulfur	104.3		39.1		PSD-FL-273	III.A.8.

Notes:

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

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Table 2-1, Summary of Compliance Requirements

Reliant Energy Osceola, L.L.C.
 Reliant Energy Osceola, L.L.C. Facility

Permit No. 0970071-005-AV
 Facility ID No. 0970071

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
[-001]	170 MW Simple-Cycle Combustion Turbine
[-002]	170 MW Simple-Cycle Combustion Turbine
[-003]	170 MW Simple-Cycle Combustion Turbine

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	Compliance	
						CMS**	See permit condition(s)
NO _x	All	EPA Method 20 or 7E	Annual	5/22/02	1-hour	Yes	III.A.25.
SO ₂	Gas	ASTM Methods		5/22/02			III.A.27.
SO ₂ % Sulfur	Oil	ASTM Methods	Fuel Transfer	5/22/02			III.A.26.
VOC	All	Compliance with CO	Annual	5/22/02			III.A.22.
CO	All	EPA Method 10	Annual	5/22/02	1-hour		III.A.23.
PM / PM ₁₀	All	EPA Method 9	Annual	5/22/02	30-minutes		III.A.24.
VE	All	EPA Method 9	Annual	5/22/02	30-minutes		III.A.30.

Notes:
 * The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.
 **CMS [=] continuous monitoring system

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