Memorandum

Florida Department of Environmental Protection

TO: Trina Vielhauer, Chief
Bureau of Air Regulation

FROM: Jeff Koerner, Air Permitting North

DATE: May 9, 2005

SUBJECT: Draft Air Permit No. 0950111-025-AC
WDW Resort Complex – Reedy Creek Improvement District
Gas Turbine Replacement Project

Attached for your review are the following items:

- Intent to Issue Permit and Public Notice Package;
- Technical Evaluation and Preliminary Determination;
- Draft Permit; and
- PE Certification

The draft permit authorizes the replacement of the existing LM 5000 gas turbine (EU-088) with an LM 6000PC gas turbine with SPRINT®. The new equipment will be installed at Reedy Creek Improvement District in the Walt Disney World Resort Complex, which is located in both Orange and Osceola counties. The gas turbine system is located in Lake Buena Vista, Florida.

The Technical Evaluation and Preliminary Determination provides a detailed description of the project, rule applicability, and emissions standards. The P.E. certification briefly summarizes the proposed project. Day #74 is June 10, 2005. I recommend your approval of the attached Draft Permit for this project.

Attachments

P.E. CERTIFICATION STATEMENT

PERMITTEE

Walt Disney World Company
WDW Resort Complex – Reedy Creek Improvement District
1375 Buena Vista Drive
Lake Buena Vista, FL 32830-8402

Air Permit No. 0950111-025-AC
Reedy Creek Improvement District
Gas Turbine Replacement Project
Lake Buena Vista, Florida

PROJECT DESCRIPTION

The Reedy Creek Improvement District operates a combined cycle gas turbine for the Walt Disney World Resort Complex, which covers both Orange and Osceola counties. The combined cycle gas turbine system is located in Lake Buena Vista, Florida. The proposed project will replace the existing LM 5000 gas turbine (EU-088) with an LM 6000PC gas turbine with SPRINT®.

Water injection decreases flame temperatures to control emissions of nitrogen oxides when firing either natural gas or oil. Emissions of carbon monoxide, particulate matter, and volatile organic compounds are minimized by the firing of natural gas and distillate oil, which are fuels that readily combust at the high temperatures of gas turbines. In addition, these fuels contain little ash. Emissions of carbon monoxide and volatile organic compounds are further reduced by the oxidation catalyst. Emissions of sulfur dioxide and sulfuric acid mist are also minimized by the use of natural gas and distillate oil, which contain only limited amounts of sulfur.

In addition to the specific conditions of the permit, the gas turbine is subject to the following regulatory programs:

- Title III of the Clean Air Act, Major Sources of Hazardous Air Pollutants
- Title IV of the Clean Air Act, Phase II Acid Rain Program
- Title V of the Clean Air Act, Major Source Operating Permit Program
- New Source Performance Standards (NSPS) in 40 CFR 60, Subparts A and GG
- National Emissions Standards for Hazardous Air Pollutants (NESHAP) in 40 CFR 63, Subparts A and YYYY

The existing facility is considered a "major facility" in accordance with Rule 62-212.400, F.A.C., which is the new source preconstruction review program for the Prevention of Significant Deterioration (PSD) of Air Quality in areas currently in attainment with the Ambient Air Quality Standards. However, based on the past actual emissions from the existing combined cycle gas turbine, the project will not result in a significant increase of any PSD-regulated pollutants. Therefore, the project is not subject to PSD preconstruction review.

I HEREBY CERTIFY *that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).*

Jeffery F. Koerner, P.E.
Registration Number: 49441

5-9-05
(Date)

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. Lee Schmudde, Vice President
Walt Disney World Company
WDW Resort Complex-Reedy Creek
Improvement District
1375 Buena Vista Drive
Lake Buena Vista, Florida 32330-8402

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X RECEIVED ☐ Agent ☐ Addressee

B. Received by (*Printed Name*) 1101 MAY 24 200 C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No
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3. Service Type
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☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. Article Number (*Transfer from service label*) 7001 0320 0001 3692 3173

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

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Mr. Lee Schmudde, Vice President
Walt Disney World Company
WDW Resort Complex-Reedy Creek
Improvement District
1375 Buena Vista Drive
Lake Buena Vista, Florida 32330-8402

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PS Form 3800, January 2001 See Reverse for Instructions

Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

May 18, 2005

Mr. Lee Schmudde, Vice President
Walt Disney World Company
WDW Resort Complex – Reedy Creek Improvement District
1375 Buena Vista Drive
Lake Buena Vista, FL 32830-8402

Re: Reedy Creek Improvement District
Air Permit No. 0950111-025-AC
Gas Turbine Replacement Project (EU-088)

Dear Mr. Schmudde:

On February 3, 2005, you submitted an application requesting replacement of the existing LM 5000 gas turbine with an LM 6000PC gas turbine with SPRINT™. The new equipment will be installed at Reedy Creek Improvement District in the Walt Disney World Resort Complex, which is located in both Orange and Osceola counties. The address is 1375 Buena Vista Drive in Lake Buena Vista, Florida. Enclosed are the following documents: "Technical Evaluation and Preliminary Determination", "Draft Permit", "Written Notice of Intent to Issue Air Permit", and "Public Notice of Intent to Issue Air Permit".

The "Technical Evaluation and Preliminary Determination" summarizes the Permitting Authority's technical review of the application and provides the rationale for making the preliminary determination to issue a Draft Permit. The proposed "Draft Permit" includes the specific conditions that regulate the emissions units covered by the proposed project. The "Written Notice of Intent to Issue Air Permit" provides important information regarding: the Permitting Authority's intent to issue an air permit for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue an air permit; the procedures for submitting comments on the Draft Permit; the process for filing a petition for an administrative hearing; and the availability of mediation. The "Public Notice of Intent to Issue Air Permit" is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

If you have any questions, please contact the Project Engineer, Jeff Koerner, at 850/921-9536.

Sincerely,

Jeffery J. Koerner

FOR Trina Vielhauer, Chief
Bureau of Air Regulation

Enclosures

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

In the Matter of an
Application for Air Permit by:

Walt Disney World Company
WDW Resort Complex – Reedy Creek Improvement District
1375 Buena Vista Drive
Lake Buena Vista, FL 32830-8402

Air Permit No. 0950111-025-AC
Reedy Creek Improvement District
Gas Turbine Replacement Project
Lake Buena Vista, Florida

Authorized Representative:
Mr. Lee Schmudde, Vice President

Facility Location: Reedy Creek Energy Services, Inc. (RCES) operates an electrical generation and distribution system on behalf of the Reedy Creek Improvement District for the Walt Disney World Resort Complex, which is located in both Orange and Osceola counties. The address is 1375 Buena Vista Drive in Lake Buena Vista, Florida.

Project: The applicant proposes to replace the existing LM 5000 gas turbine (EU-088) with an LM 6000PC gas turbine with SPRINT™ (Emissions Unit 088). The project does not trigger PSD preconstruction review. Details of the project are provided in the application and the enclosed "Technical Evaluation and Preliminary Determination".

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above. A copy of the complete project file is also available at the Air Resource Section of the Department's Central District Office at 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767. The telephone number is 407/894-7555.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "Public Notice of Intent to Issue Air Permit" (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within seven (7) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of fourteen (14) days from the date of publication of the Public Notice. Written comments must be provided to the Permitting Authority at the above address. Any written comments filed will be made available for public

inspection. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the attached Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when each petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.

Jeffery F. Koerner

For Trina Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this "Written Notice of Intent to Issue Air Permit" package (including the Public Notice, the Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 5/18/05 to the persons listed below.

Mr. Lee Schmudde, Walt Disney World Company *
Mr. Thomas Davis, ECT
Mr. Edward Godwin, Reedy Creek Energy Services
Mr. Bernie Budnik, Reedy Creek Energy Services
Mr. Len Kozlov, CD
Mr. Gregg Worley, EPA Region 4
Mr. John Bunyak, NPS

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.

(Clerk) 5/18/05 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Draft Air Permit No. 0950111-025-AC
Walt Disney World Resort Complex – Reedy Creek Improvement District
Reedy Creek Energy Services – Gas Turbine Replacement Project
Lake Buena Vista, Florida

Applicant: The applicant for this project is the Walt Disney World Company. The applicant's authorized representative and mailing address is: Mr. Lee Schmudde, Vice President; Walt Disney World Company; Reedy Creek Improvement District; Reedy Creek Energy Services; 1375 Buena Vista Drive; Lake Buena Vista, Florida 32830-8402.

Facility Location: Reedy Creek Energy Services, Inc. (RCES) operates an electrical generation and distribution system on behalf of the Reedy Creek Improvement District for the Walt Disney World Resort Complex, which is located in both Orange and Osceola counties. The address is 1375 Buena Vista Drive in Lake Buena Vista, Florida.

Project: On behalf of the Reedy Creek Improvement District, Reedy Creek Energy Services operates a combined cycle gas turbine for the Walt Disney World Resort Complex. The applicant proposes to replace the existing LM 5000 gas turbine with an LM 6000PC gas turbine with SPRINT®. The new gas turbine will use water injection to reduce emissions of nitrogen oxides. An oxidation catalyst will reduce emissions of carbon monoxide and volatile organic compounds. Emissions of particulate matter and sulfur dioxide will be minimized by the efficient combustion and use of natural gas and distillate oil.

The existing facility is considered a "major facility" in accordance with Rule 62-212.400, F.A.C., which is the new source preconstruction review program for the Prevention of Significant Deterioration (PSD) of Air Quality in areas currently in attainment with the Ambient Air Quality Standards. However, based on the past actual emissions from the existing combined cycle gas turbine, the project will not result in a significant increase of any PSD-regulated pollutants. Therefore, the project is not subject to PSD preconstruction review.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above. A copy of the complete project file is also available at the Air Resource Section of the Department's Central District Office at 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767. The telephone number is 407/894-7555.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of fourteen (14) days from the date of publication of this Public Notice. Written comments must be provided to the Permitting Authority at the above address. Any written comments filed will be made available for public inspection. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice.

(Public Notice to be Published in the Newspaper)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

(Public Notice to be Published in the Newspaper)

TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

PROJECT

Draft Air Construction Permit No. 0950111-025-AC
Gas Turbine Replacement Project

COUNTY

Orange and Osceola Counties

APPLICANT

Walt Disney World Company
Reedy Creek Improvement District
ARMS Facility ID No. 0950111

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Air Permitting South Program

May 9, 2005

{Filename: TEPD - 0950111-025-AC}

1. FACILITY/PROJECT INFORMATION

The Reedy Creek Improvement District (RCID) is part of the Walt Disney World Resort Complex (WDW), which was first opened to the public on October 1, 1971 (SIC No. 7996). The WDW facility is located in central Florida approximately 15 miles southwest of the city of Orlando and covers areas in Orange and Osceola Counties. The RCID is located at 1375 Buena Vista Drive in Lake Buena Vista, Florida. The UTM coordinates are Zone 17, 449.70 km East, and 3138.00 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS).

The facility is a complex of hotels, theme parks, support facilities and a utility. Sources of air pollutant emissions includes: a combined cycle gas turbine system, several diesel electric generators, a collection of small boilers and hot water heaters, a dry cleaning operation, and an animal crematory. Currently, the facility operates under Title V Air Operation Permit No. 0950111-024-AV, which was recently revised on February 2, 2005.

Regulatory Categories

Title III: The facility is a major source of hazardous air pollutants (HAP).

Title IV: The facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards in 40 CFR 60.

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants in 40 CFR 63.

Processing Schedule

02/03/05: Department received an application for a minor source air pollution construction permit.

02/22/05: Department requested additional information.

03/29/05: Department received additional information; application complete.

Project Description

Reedy Creek Energy Services, Inc. (RCES) operates an electrical generation and distribution system on behalf of the Reedy Creek Improvement District. This includes Emissions Unit 088, which is a combined cycle gas turbine system consisting of the following equipment: a General Electric LM 5000 gas turbine (~ 29 MW, shaft power), a gas-fired heat recovery steam generating (HRSG) unit with a maximum heat input rate of 198 MMBtu per hour, a steam turbine electrical generator (8.5 MW), and a NOx continuous emissions monitoring system. This unit fires natural gas as the primary fuel, but up to 336 hours per year of distillate fuel oil ($\leq$ 0.4% sulfur by weight) may be fired as a backup fuel. Water injection is used to reduce NOx emissions when firing either natural gas or distillate oil. The unit is equipped with an oxidation catalyst to reduce CO and VOC emissions. The HRSG duct burner is fired exclusively with natural gas.

RCES proposes to replace the existing gas turbine with a General Electric LM 6000PC SPRINT™ gas turbine rated at nominal 50 MW. The new gas turbine will include General Electric's SPRINT™ spray inter-cooling technology. No changes will be made to the existing HRSG, steam turbine electrical generator, or inlet air chilling system. The duct burner is no longer needed during combined cycle operation and will not operate when the new gas turbine in operation. The current NOx/CO_2 dilution in-stack CEMS will be replaced with a NOx/O_2 extractive CEMS. Construction is planned to begin on August 1, 2005. Initial operation is expected to occur no later than December 15, 2005. The new unit will be subject to the following specific regulations for gas turbines:

- NSPS Subpart GG in 40 CFR 60 – New Source Performance Standards for Stationary Source Gas Turbines
- NESHAP Subpart YYYY in 40 CFR 63 - National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

The applicant entered into a binding contractual obligation for the gas turbine on October 29, 2004 with cancellation costs exceeding $900,000. The new gas turbine is considered an existing unit with regard to NSPS Subpart KKKK for stationary gas turbines, which was proposed on February 18, 2005.

2. APPLICABLE REGULATIONS

State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.). This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code.

Chapter	Description
62-4	Permitting Requirements
62-204	Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference
62-210	Permits Required, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, and Forms
62-212	Preconstruction Review, PSD Review and BACT, and Non-attainment Area Review and LAER
62-213	Title V Air Operation Permits for Major Sources of Air Pollution
62-296	Emission Limiting Standards
62-297	Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures

Federal Regulations

This project is also subject to the applicable federal provisions regarding air quality as established by the EPA in the following sections of the Code of Federal Regulations (CFR).

Title 40	Description
Part 60	Subpart A - General Provisions for NSPS Sources NSPS Subpart GG – Stationary Gas Turbines Applicable Appendices
Part 63	Subpart A - General Provisions for NESHAP Sources NESHAP Subpart YYYY – Stationary Gas Turbines Applicable Appendices
Part 72	Permits Regulation, Acid Rain Program
Part 75	Continuous Emissions Monitoring, Acid Rain Program
Part 77	Excess Emissions, Acid Rain Program

Acid rain program requirements will be incorporated as part of the Title V operating permit for this facility.

General PSD Applicability

The Department regulates major air pollution facilities in accordance with Florida's Prevention of Significant Deterioration (PSD) program, as defined in Rule 62-212.400, F.A.C. A PSD preconstruction review is required in all areas currently in attainment with the state and federal Ambient Air Quality Standards (AAQS) or areas designated as "unclassifiable" for a given pollutant. A new facility is considered "major" with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant, or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD Major Facility Categories (Table 62-212.400-1, F.A.C.), or
- 5 tons per year of lead.

For new projects at PSD-major facilities, each PSD-regulated pollutant is reviewed for applicability based on emissions thresholds known as the Significant Emission Rates listed in Table 62-212.400-2, F.A.C. Pollutant emissions from a project exceeding these rates are considered "significant" and the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such pollutant and evaluate the air quality impacts. Although a facility may be "major" with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

PSD Applicability for Project

Reedy Creek Improvement District (RCID) is part of an existing PSD-major facility in accordance with Rule 62-212.400, F.A.C. It is located approximately 15 miles southwest of the city of Orlando in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to State and National Ambient Air Quality Standards (AAQS). Therefore, all new projects must be reviewed for the applicability of PSD preconstruction review.

Before December of 2005, the existing LM 5000 gas turbine will be removed from service. This will generate emissions decreases that may be used in a PSD netting analysis. Emissions increases include three emergency diesel generators installed in November of 2002 and the new LM 6000 gas turbine that is expected to begin operation in December of 2005. The gas turbine will emit: carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), volatile organic compounds (VOC), lead (Pb), and sulfuric acid mist (SAM). The following table summarizes the applicant's PSD netting analysis for these pollutants as revised by the additional information provided on March 29, 2005.

Pollutant	Annual Emissions – Tons Per Year					Subject To PSD?
	Existing LM 5000	Diesel Generators	New LM 6000PC	Net Change	PSD Significant Emission Rate	
CO [a]	- 6.3	+ 0.14	+ 55.2	+ 49.0	100	No
NOx	- 166.6	+ 1.77	+ 195.7	+ 30.9	40	No
Pb	- 0.00003	+ 0.00	+ 0.0025	+ 0.003	0.600	No
PM/PM_{10} [a]	- 2.60	+ 0.06	+ 15.7	+ 13.2	25/15	No
SAM	- 0.074	+ 0.02	+ 2.8	+ 2.8	7	No
SO_2	- 0.60	+ 0.18	+ 22.8	+ 22.4	40	No
VOC	Neg.	+ 0.42	+ 6.1	+ 6.5	40	No

Notes:

a. For the existing LM 5000 gas turbine, emissions of CO, PM/PM_{10}, and VOC are based on the data reported to the Department in the Annual Operating Reports. NOx and SO_2 emissions are based on data submitted to the EPA Acid Rain database.

b. For the diesel generators, emissions are based on data reported to the Department in the Annual Operating Reports.

c. SAM Emissions of sulfuric acid mist (SAM) are based on the assumption that 8% of the fuel sulfur is converted to SO_3 and that 100% of the SO_3 is converted to H_2SO_4.

d. Lead emissions are based on an emission factor of 1.4×10^{-5} lb/MMBtu for oil firing (AP-42, 2000) and negligible lead emissions from firing natural gas.

e. For the new LM 6000PC gas turbine, emissions are based on worst-case emissions considering fuel, load, ambient temperature, chiller operation, and SPRINT™ operation. Emissions during startups and shutdowns were also included in the annual emissions estimates.

Based on the above PSD netting analysis, the gas turbine replacement project will not result in any PSD-significant emissions increase. Therefore, the project is not subject to PSD preconstruction review.

3. GAS TURBINE INFORMATION

The following discussion is taken from a technical bulletin [GER-3695E; Oct. 2000] by GE Power Systems called, "GE Aeroderivative Gas Turbines – Design and Operating Features" by G.H. Badeer.

The LM 6000 gas turbine consists of: a five-stage low-pressure compressor (LPC); a 14-stage high pressure compressor (HPC) which includes six variable-geometry stages); an annular combustor with 30 individually replaceable fuel nozzles; a two-stage, air-cooled high-pressure turbine (HPT); and a five-stage low pressure turbine (LPT). The overall compression ratio for the LM 6000 gas turbine is 29:1. It is designed for a thermal efficiency of 42%. Unlike most aeroderivative gas turbines, the LM6000 does not have an aerodynamically coupled power turbine. It is a dual-rotor, "direct drive" gas turbine derived from the CF6-80C2, high-bypass, turbofan aircraft engine. The following figure shows the LM 6000 gas turbine.

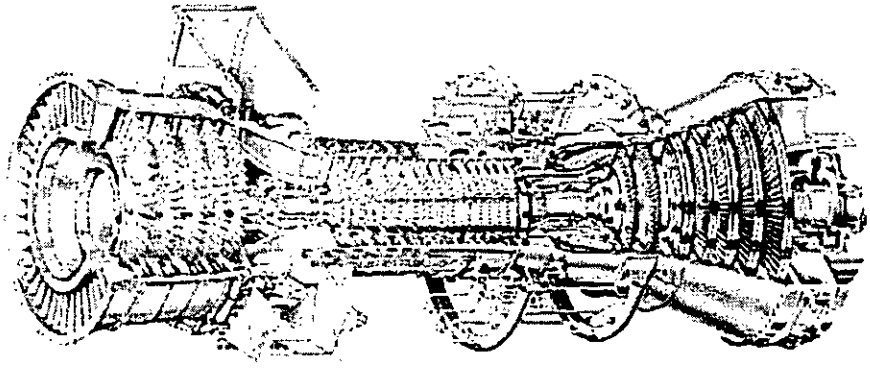

Figure 13. LM6000 Sprint™ gas turbine

The LM 6000 maintains an extraordinarily high degree of commonality with its parent aircraft engine. This is unlike the conventional aeroderivative approach which maintains commonality in the gas generator only, and adds a unique power turbine. By maintaining high commonality, the LM 6000 offers reduced parts cost and demonstrated reliability. This concept is shown in the following figure.

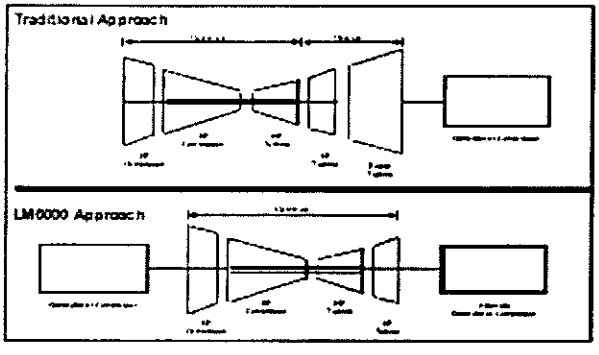

Figure 10. LM6000 concept

Unlike most gas turbines, the LM 6000 is primarily controlled by the compressor discharge temperature (T3) in lieu of the turbine inlet temperature. Some of the compressor discharge air is then used to cool HPT components. SPRINT™ (spray inter-cooling) reduces compressor discharge temperature, thereby allowing advancement of the throttle to significantly enhance power by 12% at ISO, and greater than 30% at 90°F ambient temperatures. The LM 6000 Sprint™ system is composed of atomized water injection at both LPC and HPC inlet plenums. This is accomplished by using a high-pressure compressor, eighth-stage bleed air to feed two air manifolds, water-injection manifolds, and sets of spray nozzles, where the water droplets are sufficiently

atomized before injection at both LPC and HPC inlet plenums. The following figures show the flow cross section of the Sprint™ system and the power boosting capabilities.

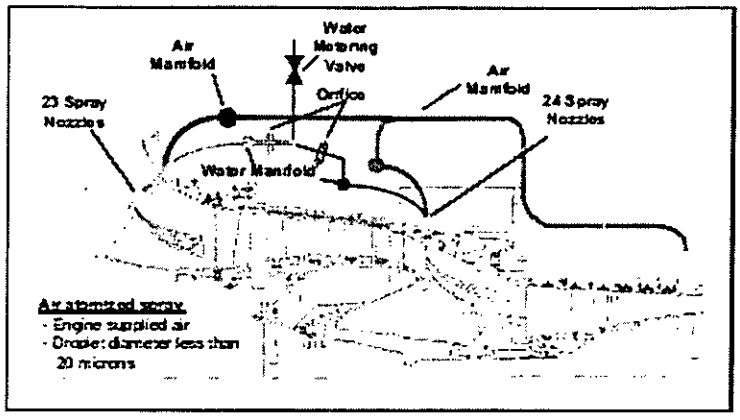

Figure 11. LM6000 Sprint™ flow cross section

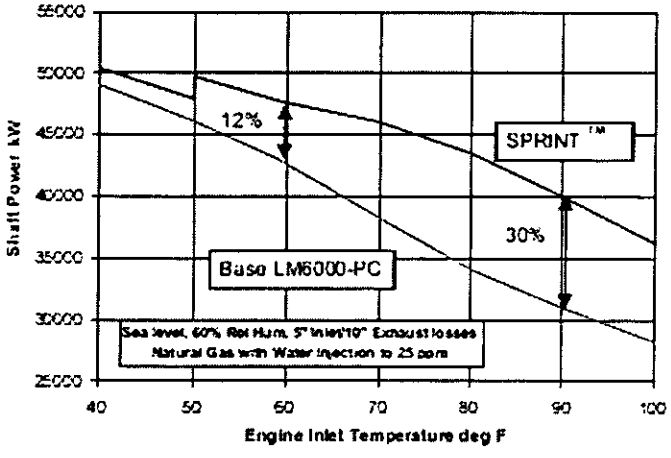

Figure 12. LM6000 Sprint™ gas turbine performance enhancement

General Electric indicates that dry uncontrolled NOx emissions approach 205 ppmvd @ 15% oxygen when firing natural gas and 403 ppmvd @ 15% oxygen when firing distillate oil. Water injection on the LM 6000PC Sprint™ gas turbine will reduce NOx emissions to 205 ppmvd @ 15% oxygen when firing natural gas and 403 ppmvd @ 15% oxygen when firing distillate oil. Typical water injection rates range from 0.6 to 1.2 pounds of water per pound of fuel.

4. PROJECT REVIEW

Requested Permit Conditions

The applicant specifically requested consideration of the following requirements:

1. Permitted Capacity: The maximum heat input rate to the gas turbine is 480 MMBtu per hour based on a compressor inlet temperature of 30° F, the higher heating value of the fuel, and 100% load.

   Basis for Request: The request is supported by data provided by General Electric.

2. Fuel Oil: Distillate (or a superior) fuel oil containing no more than 0.1% sulfur by weight may be fired as a restricted alternate fuel for up to 475 hours during any consecutive 12 months.

   Basis for Request: In general, distillate oil containing 0.05% sulfur by weight or less will be fired. However, the specification of "0.1% sulfur by weight" will allow flexibility in fuel oil selection.

   Department Comment: The request is acceptable. The current fuel specification is "0.4%" sulfur by weight. The project does is not subject to PSD preconstruction review for sulfur dioxide or sulfuric acid mist.

3. Emissions Standards: The applicant requests the following emissions standards for the LM 6000PC gas turbine:

   Carbon Monoxide (CO)

   CO (gas) ≤ 12.6 lb/hour (31.5 ppmvd @ 15% oxygen) with compliance by EPA Method 10

   CO (oil) ≤ 2.4 lb/hour (2.3 ppmvd @ 15% oxygen) with compliance by EPA Method 10

   The applicant will install a CO process monitor to provide additional information for evaluating the effectiveness of the oxidation catalyst.

   Department Comment: The Department notes that the CO level of "31.5 ppmvd @ 15% oxygen" for gas firing represents operation at only 25% load and a compressor inlet temperature of 30° F. When operating at loads greater than 40%, controlled CO emissions are expected to be 7.8 ppmvd @ 15% oxygen or less. Because the conversion efficiency can be less when uncontrolled emissions are low, the Department will accept the mass emission rate standard based on control by the oxidation catalyst.

   Nitrogen Oxides (NOx)

   NOx (gas) ≤ 25 ppmvd @ 15% oxygen (43.0 lb/hour) with compliance by EPA Method 7E or 20

   NOx (oil) ≤ 42 ppmvd @ 15% oxygen (74.0 lb/hour) with compliance by EPA Method 7E or 20

   Department Comment: NOx emissions will be controlled to the requested levels using water injection. The ISO heat rate for the LM 6000 gas turbine is 8743 Btu/kW-hr for natural gas and 8833 Btu/kW-hr for distillate oil. The NSPS Subpart GG limits are 117.1 ppmvd @ 15% oxygen for natural gas and 115.9 ppmvd @ 15% oxygen for distillate oil. Compliance will be demonstrated by CEMS data based on a 4-hour rolling average.

   Particulate Matte (PM/PM_{10})

   No limits are specifically requested for PM/PM_{10} emissions. The gas turbine will fire natural gas and restricted amounts of distillate oil. Particulate matter emissions are expected to be very low based on vendor data. The following opacity standards are requested.

   Opacity (gas) ≤ 5%, 6-minute average as determined by EPA Method 9

   Opacity (oil) ≤ 10%, 6-minute average as determined by EPA Method 9

   Department Comment: The request is reasonable considering that the primary fuel is natural gas, which contains little ash and is efficiently combusted at the high gas turbine temperatures. Distillate oil firing is restricted to no more than 475 hours per year.

   Sulfur Dioxide (SO_2)

   Natural gas will be fired as the primary fuel. The following fuel sulfur specification for distillate oil is requested in lieu of SO_2 emissions standards.

   SO_2 (oil) ≤ 0.1% sulfur by weight with compliance by 40 CFR 75, Appendix D

   Department Comment: The NSPS Subpart GG limit is 0.8% sulfur by weight. Natural gas and distillate oil contain very little sulfur. To demonstrate compliance with the fuel oil sulfur specification, the

Department will require an initial sample to be analyzed for fuel sulfur content. For all subsequent fuel oil deliveries, the permittee shall retain certifications from the fuel oil vendor of the fuel sulfur content.

Volatile Organic Compounds (VOC)

No limits are requested for VOC. The existing oxidation catalyst will reduce VOC emissions to very low levels (< 5 lb/hour on either fuel). CO emissions tests will be used as a surrogate for efficient combustion of the gas turbine and operation of the oxidation catalyst. The applicant also intends to install a CO process monitor to provide additional information for evaluating the effectiveness of the oxidation catalyst.

Department Comment: The request is reasonable for a gas turbine system with an installed oxidation catalyst. Previous tests on this system show high conversion efficiencies (> 85%) when uncontrolled CO emissions from the gas turbine are 10 lb/hour or greater. Even when uncontrolled CO emissions from the gas turbine are already very low (< 5 lb/hour), tests show a conversion efficiency of nearly 70%.

4. Excess NOx Emissions Monitoring - NSPS Subpart GG: For purposes of monitoring emissions in excess of the NSPS Subpart GG NOx standard, a NOx CEMS will be utilized instead of continuous fuel consumption and monitoring of the water-to-fuel ratio. The NOx CEMS shall be installed, certified, operated, maintained, and quality-assured in accordance with 40 CFR 60.334(b). An hour of NSPS Subpart GG excess NOx emissions is defined as any gas turbine operating hour in which the 4-hour rolling average NOx concentration exceeds the emission limit specified in 40 CFR 60.334(a)(1). The 4-hour rolling average NOx concentration is the arithmetic average of the NOx concentration measured by the CEMS (corrected to 15% oxygen) for that operating hour and the three 1-hour NOx concentrations immediately preceding that operating hour. Correction of the CEMS data to ISO conditions is not required.

   Basis for Request: 40 CFR 60.334(d) now allows the use of a NOx CEMS to determine excess emissions instead of continuously monitoring the fuel nitrogen and water-to-fuel ratio. Excess NOx emissions when using a CEMS is defined 40 CFR 60.334(j)(1)(iii) as a 4-hour rolling average. The applicant does not request any changes to the current permit condition regarding excess emissions pursuant to Rule 62-210.700(1), F.A.C., which states, "Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and 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." The permit also notes that this state rule cannot vary any requirement of an applicable NSPS, NESHAP, or Acid Rain program provision.

   Department Comment: The new NOx CEMS will be used to determine compliance with both the NSPS and the SIP standards to avoid PSD preconstruction review. Gas turbine startup is 15 minutes from pushing the "start button" to reach sufficient load (~ 10 MW) to begin water injection for NOx control. Shutdown typically takes less than 15 minutes during which water injection cannot be used for approximately 5 to 10 minutes. The requested change allows excess emissions to be determined by a 4-hour rolling CEMS average. This will greatly reduce the number of reported periods of excess emissions due to startups and shutdowns.

   When metal temperatures of the heat recovery steam generator and steam turbine are low, it is necessary to operate at reduced loads for extended periods to gradually warm these components and prevent damage. For example, a "cold startup" could last four hours and a "warm startup" could last 1 hour. Nevertheless, the gas turbine is operated at sufficient load to employ water injection and comply with the NOx standard. In addition, the oxidation catalyst ensures reductions of CO and VOC emissions.

5. Fuel Sulfur and Nitrogen Monitoring – NSPS Subpart GG: Monitoring of the sulfur content of natural gas is not required. Monitoring of fuel nitrogen content is not required for either natural gas or distillate oil (or superior) fuel oil. For distillate (or superior) fuel oil sulfur monitoring, one of the total sulfur sampling

options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of Appendix D to 40 CFR 75 shall be used.

Basis for Request: Natural gas meeting the definition of "natural gas" in 40 CFR 60.331(u) will be combusted in the LM 6000 gas turbine. Accordingly, monitoring of the natural gas sulfur content is not required pursuant to 40 CFR 60.334(h)(3). No adjustment to the NSPS NOx emission limit specified in 40 CFR 60.334(a)(1) for fuel-bound nitrogen (FBN) is requested for the LM 6000PC gas turbine. Accordingly, monitoring of FBN is not required in accordance with 40 CFR 60.334(h)(2). The requested procedures for monitoring fuel oil sulfur content reflect the requirements of 40 CFR 60.334(j)(1).

Department Comment: The Department agrees that the July 2004 revisions to NSPS Subpart GG no longer require the monitoring of the fuel nitrogen content of natural gas and distillate oil or the fuel sulfur content of natural gas. To demonstrate compliance with the fuel oil sulfur specification, the Department will require an initial sample to be analyzed for fuel sulfur content. For all subsequent fuel oil deliveries, the permittee shall retain certifications from the fuel oil vendor of the fuel sulfur content.

6. Duct Burner: With the gas turbine upgrade, the duct burner will not be used when the gas turbine is in operation. To avoid potential applicability of NSPS Subpart Db, the applicant requests that duct burner operation be restricted to: (1) firing only natural gas and (2) a maximum annual heat input rate of 173,445 MMBtu per year.

   Basis for Request: Units with a maximum heat input rate of less than 250 MMBtu/hour are not subject to the requirements of NSPS Subpart Db if they fire only natural gas and are restricted to an annual capacity factor of less than 10%. The duct burner capacity is 198 MMBtu/hour, so 876 hours per year would yield approximately 173,445 MMBtu/year.

   Department Comment: The Department notes that with the gas turbine upgrade, the duct burner is being relegated as a backup unit for emergency purposes. For example, if the gas turbine and hot water generator #3 are both down, the duct burner could be fired with natural gas in "fresh air mode" to provide hot water for cooking, space heating, and domestic hot water. In this mode, it is also necessary to circulate water and operate the steam turbine generator. The duct burner could also fire in "fresh air mode" to produce about 4 MW if there was a natural gas curtailment, a system power outage, or both. The electricity would be used for life and property preservation. The oxidation catalyst is operational during fresh air firing. When firing in the fresh air mode, the duct burner is only subject to the 5% opacity standard.

Other Permit Conditions

Consistent with the requirements of the July 2004 revisions, the applicant will determine excess NOx emissions in accordance with the NSPS Subpart GG requirements by data collected from the CEMS. The draft permit also requires the permittee to continuously monitor the water-to-fuel ratio as a backup system to show proper operation of the NOx control system. Such times will be infrequent because the NOx monitor availability will be maintained above 95%.

5. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Jeff Koerner is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

PERMITTEE:

Walt Disney World Company
WDW Resort Complex – Reedy Creek Improvement District
1375 Buena Vista Drive
Lake Buena Vista, FL 32830-8402

Authorized Representative:
Mr. Lee Schmudde, Vice President

Reedy Creek Improvement District
Air Permit No. 0950111-025-AC
Facility ID No. 0950111
SIC No. 7996
Permit Expires: November 1, 2006

PROJECT AND LOCATION

This permit authorizes the replacement of the existing LM 5000 gas turbine (EU-088) with an LM 6000PC gas turbine with SPRINT™. The new equipment will be installed at Reedy Creek Improvement District in the Walt Disney World Resort Complex, which is located in both Orange and Osceola counties. The address is 1375 Buena Vista Drive in Lake Buena Vista, Florida. The UTM map coordinates are: Zone 17; 449.70 km East; and 3138.00 km North (Latitude: 28° 22' 24" North / Longitude: 81° 32' 46" West).

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Parts 60, 63, and 72, 75, and 77 of the Code of Federal Regulations. The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department. For the combined cycle gas turbine and duct burner, this permit supersedes original Permit No. AC48-137740 (PSD-FL-123), which authorized initial construction.

CONTENTS

(DRAFT)

Michael G. Cooke, Director
Division of Air Resource Management

(Effective Date)

FACILITY AND PROJECT DESCRIPTION

The facility is a complex of hotels, theme parks, and support facilities including a utility. Sources of air pollution include equipment such as: boilers, hot water heaters, oil heaters, a dry cleaning operation, a boat maintenance area, surface coating operations, and a combined cycle gas turbine. The project only affects the following emissions unit.

ID	Emission Unit Description
088	Replace existing LM 5000 gas turbine (nominal 38 MW) with new LM 6000PC gas turbine (nominal 50 MW) to operate in combined cycle mode with heat recovery steam generator and steam turbine electrical generator (nominal 8.5 MW)

REGULATORY CLASSIFICATION

Title III: The facility is identified as a potential major source of hazardous air pollutants (HAP).

Title IV: The facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The facility is a PSD-major facility as defined in Rule 62-212.400, F.A.C. The project is not subject to PSD preconstruction review.

NSPS: The federal New Source Performance Standards (NSPS) are specified in 40 CFR 60. The replacement combustions turbine is subject to the NSPS Subpart GG provisions for stationary gas turbines. The Department makes a preliminary determination (subject to approval by EPA) that the new gas turbine is not subject to the proposed NSPS Subpart KKKK provisions because the permittee entered into a binding contractual obligation for the gas turbine on October 29, 2004 with substantial cancellation costs.

NESHAP: The federal National Emissions Standards for Hazardous Air Pollutants (NESHAP) source categories are established in 40 CFR 63. The new combustion turbine is subject to the NEHSAP Subpart YYYY provisions for combustions turbines. However, EPA stayed the effectiveness of this regulation on August 18, 2004. The permittee must comply with only the initial notification requirements set forth in § 63.6145 until EPA takes final action and publishes a document in the Federal Register.

RELEVANT DOCUMENTS

The permit application and additional information received to make it complete are not a part of this permit; however, the information is specifically related to this permitting action and is on file with the Department.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, modify, or operate emissions units regulated by this permit shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of application shall also be submitted to the Compliance Authority.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resource Section of the Department's Central District Office at 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.

3. Appendices: The following Appendices are attached as part of this permit: Appendix A (Citation Format); Appendix B (General Conditions); Appendix C (Common Conditions); Appendix D (Summary of Potential Emissions); Appendix E (NSPS Provisions); and Appendix F (NESHAP Provisions).

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40, Parts 60, 63, and 75 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

A. LM 6000PC Gas Turbine with SPRINT™ (EU-088)

This section of the permit addresses the following emissions unit.

Emissions Unit No. 088
Description: The emissions unit is General Electric Model No. LM 6000PC gas turbine (nominal 50 MW) with heat recovery steam generator and steam turbine electrical generator (nominal 8.5 MW). The gas turbine includes SPRINT™ spray inter-cooling technology and inlet air chilling. Natural gas (SCC No. 2-01-002-01) is the primary fuel with distillate oil (SCC No. 2-01-001-01) as a restricted alternate fuel limited to no more than 475 hours per year. The permitted capacity is 480 MMBtu per hour of heat input from either fuel based on a compressor inlet air temperature of 30° F, 100% load, and the higher heating value of the fuel.
Controls: Water injection decreases flame temperatures to control emissions of nitrogen oxides (NOx). An oxidation catalyst minimizes emissions of carbon monoxide (CO) and volatile organic compounds (VOC).
Monitors: NOx emissions are monitored and recorded by a continuous emissions monitoring system (CEMS). The water-to-fuel ratio is also continuously monitored.
Stack Parameters: The exhaust stack is approximately 11.1 feet in diameter and 65 feet tall. Exhaust gas will exit the stack at approximately 285° F with a volumetric flow rate of approximately 350,935 acfm based on a compressor inlet air temperature of 48° F, 100% load, and the inlet chiller operation.

{Permitting Note: The existing combined cycle unit was originally constructed in accordance with Permit No. PSD-FL-123 with an LM 5000 gas turbine, which began commercial operation April of 1989. This permit authorizes the replacement of the gas generator component.}

FEDERAL STANDARDS

1. NSPS Provisions: The gas turbine is subject to the federal New Source Performance Standards (NSPS) in Subpart GG of 40 CFR 60. See Appendix E of this permit. [40 CFR 60, Subparts A and GG]
2. NESHAP Provisions: The gas turbine is subject to the federal National Emissions Standards for Hazardous Air Pollutants (NESHAP) in Subpart YYYY of 40 CFR 63. See Appendix F of this permit. [40 CFR 63, Subparts A and YYYY]
3. Acid Rain Provisions: The new gas turbine is subject to the Phase II requirements of the Acid Rain Program pursuant to Title IV of the Clean Air Act. The permittee shall update the acid rain information as necessary in the application for a Title V permit revision to incorporate the conditions of this air construction permit. [Chapter 214, F.A.C.]

EQUIPMENT

4. Gas Turbine: In the existing combined cycle system, the permittee is authorized to replace the existing LM 5000 gas turbine with a new LM 6000PC gas turbine with SPRINT™ technology. The new gas turbine with generator set will be capable of firing either natural gas or distillate oil and will be designed to produce a nominal 50 MW (ISO) of shaft power. The existing LM 5000 gas turbine shall be permanently shutdown prior to startup of the new gas turbine system. For the combined cycle gas turbine and duct burner, this permit supersedes original Permit No. AC48-137740 (PSD-FL-123), which authorized initial construction. [Design; Applicant Request]
5. Water Injection: In accordance with the manufacturer's recommendations, the permittee shall install, tune, operate, and maintain a water injection system to reduce NOx emissions from the gas turbine to achieve the permitted NOx standards. The water injection system shall be engaged as soon as feasible and shall continuously monitor the water-to-fuel ratio. [Design; 40 CFR 60 Subpart GG]

PERFORMANCE REQUIREMENTS

6. Permitted Capacity: The maximum heat input rate to the gas turbine is 480 MMBtu per hour based on the higher heating value of each fuel, a compressor inlet temperature of 30° F, and full load operation. [Applicant Request; Rule 62-210.200(PTE), F.A.C.]

7. Authorized Fuel: The gas turbines shall fire only the following fuels.

   a. *Natural Gas*: As the primary fuel, the gas turbine shall fire pipeline natural gas.

   b. *Distillate Oil*: As a restricted alternate fuel, the gas turbine may fire No. 2 distillate oil (or superior) with a maximum fuel sulfur content of no more than 0.1% sulfur by weight. Distillate oil firing shall not exceed 475 hours during any consecutive 12 months. Initial compliance with the fuel sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and reporting the results to the Compliance Authority before initial startup on oil. Sampling the fuel oil sulfur content shall be conducted in accordance with ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, and one of the following test methods for sulfur in petroleum products: ASTM D129-91, ASTM D1552-90, ASTM D2622-94, or ASTM D4294-90 or other equivalent methods after approval of the Department. For each subsequent fuel delivery, the permittee shall maintain a permanent file of the certified fuel sulfur analysis from the fuel vendor. At the request of a Compliance Authority, the permittee shall perform additional sampling and analysis for the fuel sulfur content.

   [Applicant Request; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

8. Hours of Operation: The hours of gas turbine operation are not limited (8760 hours per year). However, the gas turbine shall fire distillate oil for no more than 475 hours during any consecutive 12 months. [Applicant Request; Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

9. Carbon Monoxide (CO): When firing natural gas, CO emissions shall not exceed 12.6 pounds per hour as determined by EPA Method 10 and 19 based on an average of three 1-hour test runs. When firing distillate oil, CO emissions shall not exceed 2.4 pounds per hour as determined by EPA Method 10 and 19 based on an average of three 1-hour test runs. *{Permitting Note: CO emissions are reduced by the oxidation catalyst. The above standards are equivalent to approximately 31.5 ppmvd @ 15% oxygen for gas firing and 2.3 ppmvd @ 15% oxygen for oil firing. The gas-firing standard is based on operation at only 25% load and a compressor inlet temperature of 30° F. When operating at loads greater than 40%, controlled CO emissions are expected to be 7.8 ppmvd @ 15% oxygen or less.}* [Design; Applicant Request; Rule 62-4.070(3), F.A.C.]

10. Nitrogen Oxides (NOx): When firing natural gas, NOx emissions shall not exceed 25 ppmvd @ 15% oxygen and 43.0 pounds per hour as determined by EPA Method 7E and 19 (or EPA Method 20) based on a 4-hour rolling average. When firing distillate oil, NOx emissions shall not exceed 42 ppmvd @ 15% oxygen and 74.0 pounds per hour as determined by EPA Method 7E and 19 (or EPA Method 20) based on a 4-hour rolling average. Determination of the 4-hour rolling average shall be consistent with the requirements in NSPS Subpart GG. [Design; Applicant Request; Rule 62-4.070(3), F.A.C.]

11. Opacity: When firing natural gas, the stack exhaust opacity shall not exceed 5% based on a 6-minute average as determined by EPA Method 9 observations. When firing distillate oil, the stack exhaust opacity shall not exceed 10% based on a 6-minute average as determined by EPA Method 9 observations. [Design; Applicant Request; Rule 62-4.070(3), F.A.C.]

{Permitting Note: NESHAP Subpart YYYY also establishes a formaldehyde standard; however, EPA has stayed the effectiveness of this rule until further notice. See Appendix F of this permit. Emissions of particulate matter and volatile organic compounds are minimized by the firing of natural gas and distillate oil, which are readily combusted at high gas turbine temperatures. In addition, these fuels contain little ash. Emissions of volatile organic compounds are further reduced by the oxidation catalyst. Emissions of sulfur dioxide and sulfuric acid mist are also minimized by the use of natural gas and distillate oil, which contain only limited amounts of sulfur. A summary of the potential emissions is provided in Appendix D of this permit.}

EXCESS EMISSIONS

{Permitting Note: The following conditions apply only to the SIP-based emissions standards specified in Section 3 of this permit. Rule 62-210.700, F.A.C. (Excess Emissions) cannot vary any federal provision of the NSPS, NESHAP, or Acid Rain programs.}

12. Definitions

    a. *Excess Emissions* are defined as emissions of pollutants in excess of those allowed by any applicable air pollution rule of the Department, or by a permit issued pursuant to any such rule or Chapter 62-4, F.A.C. The term applies only to conditions which occur during startup, shutdown, or malfunction. [Rule 62-210.200(106), F.A.C.]

    b. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions. [Rule 62-210.200(246), F.A.C.]

    c. *Shutdown* is the cessation of the operation of an emissions unit for any purpose. [Rule 62-210.200(231), F.A.C.]

    d. *Malfunction* is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner. [Rule 62-210.200(160), F.A.C.]

13. Startup, Shutdown, Malfunction: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing: (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. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A written report summarizing each malfunction resulting in excess emissions shall be submitted in a quarterly report. [Rule 62-210.700(1) and (6), F.A.C.]

14. Prohibition: 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. [Rule 62-210.700(4), F.A.C.]

PERFORMANCE TESTING

15. Common Test Requirements: Tests shall be conducted in accordance with the applicable testing, notification, and reporting requirements specified in Appendix C (Common Conditions) of this permit. [Rule 62-297.310, F.A.C.]

16. Test Methods: The following methods shall be used to determine emissions and demonstrate compliance with the standards specified in this permit. The methods are defined in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. Equivalent methods may only be used after written

Department approval. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content *{Note: Use as necessary to support other methods.}*
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources *{Note: The method shall be based on a continuous sampling train.}*
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates *{Note: Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4. Use as necessary to support other methods.}*
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines

17. Initial Compliance Tests: Using the test methods identified above, the permittee shall have initial tests conducted to demonstrate compliance with the CO, NOx, and opacity standards specified in this permit for each authorized fuel. Initial tests shall be conducted within 60 days of achieving the maximum production capacity, but no later than 180 days after initial operation of the gas turbine. Initial compliance shall be demonstrated in accordance with the NSPS Subpart GG testing requirements in Appendix E of this permit. Subsequent compliance shall be demonstrated by NOx CEMS data. *{Permitting Note: See Appendix E for initial NSPS testing requirements and Appendix F for initial NESHAP testing requirements.}* [Rule 62-297.310(7)(a)1, F.A.C.]

18. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the gas turbine shall be tested to demonstrate compliance with the CO and opacity standards specified in this permit. *{Permitting Note: No annual test for NOx is required because continuous compliance will be demonstrated by NOx CEMS data.}* [Rule and 62-297.310(7)(a)4, F.A.C.]

19. Test Reports: In addition to the information specified in Appendix C of this permit, each test report shall indicate the load rate (MW), heat input rate (MMBtu/hour), ambient temperature (° F), compressor inlet temperature (° F), evaporating cooling or not, NOx emissions rate (ppmvd @ 15% oxygen and lb/hour), and the water-to-fuel ratio (lb water/lb fuel) for each test run. [Rule 62-297.310(8), F.A.C.]

CONTINUOUS MONITORING REQUIREMENTS

20. NOx CEMS: The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) in the exhaust stack to measure and record NOx emissions and flue gas oxygen content in a manner sufficient to demonstrate compliance with the standards specified in this permit. Emissions data shall be recorded by the CEMS at all times including periods such as startup, shutdown, and malfunction.

    a. *NOx Monitor Certification.* The NOx monitor shall be installed, certified, operated and maintained in accordance with the applicable requirements of 40 CFR Part 75. For purposes of determining compliance with the emission standards specified by this permit, missing data shall not be substituted. Determination of the 4-hour rolling average shall be consistent with the requirements in NSPS Subpart GG.

    b. *Oxygen Monitor Certification.* The oxygen monitor shall be installed, certified, operated and maintained in accordance with the applicable requirements of Performance Specification 3 in Appendix

B of 40 CFR 60. The monitor shall comply with the applicable quality assurance procedures specified in Appendix F of 40 CFR 60.

c. *Monitor Availability.* Monitor availability shall not be less than 95% in any calendar quarter. Within 30 days following each calendar quarter, the permittee shall submit a report to the Compliance Authority summarizing the monitor availability. In the event 95% availability is not achieved, the permittee shall include a supplemental report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to achieve 95% availability, in and of itself, is not necessarily a violation of this permit. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

d. *Data Collection.* The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over a 1-hour block. The CEMS shall be designed and operated to correct emissions to a dry basis. Each 1-hour emission average shall be computed using at least one data point in each fifteen minute quadrant of the 1-hour block during which the unit combusted fuel. Notwithstanding this requirement, each 1-hour emission average shall be computed from at least two data points separated by a minimum of 15 minutes. All valid measurements or data points collected during a 1-hour block shall be used to calculate the 1-hour emission averages.

e. *Emissions Averages.* The emissions data shall be reduced to 1-hour emissions averages. Compliance with the NOx standards shall be demonstrated based on a 4-hour rolling average of the 1-hour emissions averages consistent with the requirements in NSPS Subpart GG. The NOx CEMS shall express 1-hour emission averages and 4-hour rolling averages in terms of "ppmvd corrected to 15% oxygen". An hour during which any amount of oil is fired shall be attributed to "oil firing". If an operational period includes both gas firing and oil firing, the 4-hour emissions standard shall be prorated based on the emissions standard for each fuel and the number of hours of firing attributed to each fuel. Upon a request from the Compliance Authority, the NOx emission rate shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.

[Rules 62-4.070(3) and 62-297.520, F.A.C.; 40 CFR 75]

21. CMS for Water-to-Fuel Ratio: Using operational data from the continuous monitoring system (CMS) for the water-to-fuel ratio and the NOx CEMS, the permittee shall document the water-to-fuel ratio necessary to comply with the permitted NOx standards throughout the range of operational loads. Data collected from the required NOx CEMS shall be used to demonstrate compliance with the emissions standards of this permit, including excess emissions with respect to the NSPS Subpart GG standards. However, in cases where the NOx data is invalid or unavailable, documentation of the water-to-fuel ratio shall be used to demonstrate proper operation of the NOx control system. Water-to-fuel ratio data shall only be used as a backup to data collected by the NOx CEMS. [Design; Rule 62-4.070(3), F.A.C.; 40 CFR 60 Subpart GG]

DUCT BURNER REQUIREMENTS

22. Duct Burner: The existing heat recovery steam generator (HRSG) includes a gas-fired duct burner system. After completion of the gas turbine replacement project, the duct burner shall be fired only in the "fresh air mode", which is defined as duct firing without the gas turbine in operation. The duct burner is subject to the following requirements.

    a. The duct burner shall not operate when the combustion turbine is firing fuel. Exhaust gas from the duct burner will exit the gas turbine exhaust stack.

    b. The duct burner shall fire only natural gas (SCC No. 1-01-006-01). The maximum heat input rate is

198 MMBtu per hour, which is equivalent to approximately 190,000 cubic feet per hour based on the higher heating value of natural gas.

c. The duct burner shall fire no more than 173,445 MMBtu per year of natural gas during any consecutive 12 months. *{Permitting Note: This condition restricts the annual capacity factor of the duct burner to less than 10%. Therefore, the duct burner is not subject to the NOx requirements of NSPS Subpart Db. There are no applicable NSPS Subpart Db emissions standards for the gas-fired duct burner.}*

d. When firing the duct burner in fresh air mode, the stack opacity shall not exceed 5% based on EPA Method 9 observations.

e. Due to the very restricted ability to operate this unit, no initial or periodic opacity tests are required. 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 shall 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. [Rule 62-297.310(7)(b), F.A.C.]

{Permitting Note: With the upgraded gas turbine, duct firing no longer supports combined cycle operation. Duct firing will only be used as a backup for the gas turbine and hot water generator #3. In this mode, it is also necessary to circulate water and operate the steam turbine generator. Similarly, the duct burner could produce about 4 MW if there was a natural gas curtailment, a system power outage, or both. The electricity would be used for life and property preservation. The oxidation catalyst is operational during fresh air firing.} [Applicant Request; Rules 62-204.800 and 62-210.200(PTE), F.A.C.; 40 CFR 60.41b and 40 CFR 60.44b]

RECORDS

23. Monitoring of Operations: To demonstrate compliance with the gas turbine capacity requirements, the permittee shall monitor and record the operating rate of the gas turbine on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). Such monitoring shall be made using a monitoring component of the CEMS required above, or by monitoring daily rates of consumption and heat content of natural gas in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3), F.A.C.]

24. Operational Data: Within 10 days following each month, the permittee shall record the following information in a written log maintained on site: combustion turbine (MMcf of gas fired, hours of gas firing, gallons of oil fired, hours of oil firing, and hours of oil firing during last consecutive 12 months); and duct burner (hours of gas firing). [Rule 62-4.070(3), F.A.C.]

25. Catalyst Reports: Based on data collected during the calendar year, the permittee shall provide a report summarizing the present condition of the catalyst. The report shall be submitted along with the required Annual Operating Report. [Rule 62-4.070(3), F.A.C.]

26. Quarterly NOx Report: Within 30 days following each calendar quarter, the permittee shall submit a report summarizing the following: NOx monitor performance (downtime, availability, and a corrective plan if necessary; cause of each downtime; unusual maintenance or repair; and a summary of any RATA tests performed) and excess emissions (each 4-hour NOx average in excess of the permitted NOx standard in Section 3 of this permit; the number of startups, shutdowns, and malfunctions resulting in excess emissions; and the written report summarizing each malfunction resulting in excess emissions). [Rules 62-4.070(3), 62-4.130, and 62-210.700(6), F.A.C]

SECTION 4. APPENDICES

Contents

SECTION 4. APPENDIX A

Citation Formats

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit
"AO" identifies the permit as an Air Operation Permit
"123456" identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located
"2222" represents the specific facility ID number
"001"identifies the specific permit project
"AC" identifies the permit as an air construction permit
"AF" identifies the permit as a minor federally enforceable state operation permit
"AO" identifies the permit as a minor source air operation permit
"AV" identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality
"FL" means that the permit was issued by the State of Florida
"317" identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CRF 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX B

General Conditions

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

   a. Have access to and copy and records that must be kept under the conditions of the permit;
   b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
   c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

   Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

   a. A description of and cause of non-compliance; and

   b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

   The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

    a. Determination of Best Available Control Technology (not applicable to project);
    b. Determination of Prevention of Significant Deterioration (not applicable to project); and
    c. Compliance with New Source Performance Standards (subject to NSPS Subpart GG).

14. The permittee shall comply with the following:

    a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

    b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

    c. Records of monitoring information shall include:

        1) The date, exact place, and time of sampling or measurements;
        2) The person responsible for performing the sampling or measurements;
        3) The dates analyses were performed;
        4) The person responsible for performing the analyses;
        5) The analytical techniques or methods used; and
        6) The results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Common Conditions

{Permitting Note: Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.}

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]

2. 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.]

3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (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. [Rule 62-210.700(1), F.A.C.]

4. Excess Emissions Prohibited: Excess emissions caused 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. [Rule 62-210.700(4), F.A.C.]

5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permitee shall notify the Department or the appropriate Local Program 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.]

6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and62-210.200(203), F.A.C.]

8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants. from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

10. 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 two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate 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 purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]

12. Calculation of Emission Rate: For each emissions performance test, 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.]

13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.

    a. *Required Sampling Time.* 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. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.

    b. *Minimum Sample Volume.* Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

    c. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

    [Rule 62-297.310(4), F.A.C.]

14. 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.]

15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.

16. Test Notification: 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. [Rule 62-297.310(7)(a)9, F.A.C.]

17. 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 shall 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. [Rule 62-297.310(7)(b), F.A.C.]

18. Test Reports: 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. 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. 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.]

RECORDS AND REPORTS

19. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
20. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility.. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

Summary of Potential Emissions

The following table is provided for informational purposes only. The annual criteria pollutant emissions estimates are based on information in the application.

Table D-1. Potential Emissions

Pollutant	Gas Firing		Oil Firing		Annual Emissions
	lb/hour	hours/year	lb/hour	hours/year	Tons Per Year
CO	12.6	8760	2.4	0	55
NOx	43.0	8285	74.0	475	196
PM/ PM10	3.0	8285	13.9	475	16
SO2	2.9	8285	46.3	475	23
VOC	1.2	8285	4.9	475	6

Notes:

1. The gas-firing hourly CO emissions rate is based on 25% load and a compressor inlet temperature of 30° F. Gas-firing hourly emissions rates for NOx, PM/PM10, and SO2 are based on 100% load and a compressor inlet temperature of 48° F. The gas-firing hourly VOC emission rate is based on 100% load and a compressor inlet temperature of 60° F. The oil-firing hourly emissions rates for all pollutants are based on 100% load and a compressor inlet temperature of 30° F.
2. In general, annual emissions are based on 8760 hours of operation with 8285 hours of gas firing and 475 hours of oil firing. However, CO emissions when firing gas at low loads may result in higher emissions than oil firing. Therefore, annual CO emissions are based on 8760 hours of gas firing to provide the maximum potential emissions.

Chapter 40, Code of Federal Regulations, Part 60, Standards of Performance for New Stationary Sources
[Rule 62-204.800(8), F.A.C.]

(a) Definitions. For the purposes of subsection 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR Part 60 adopted herein shall apply, except that the term "Administrator," when used in any provision of 40 CFR Part 60 that is delegated to the Department by the U.S. Environmental Protection Agency, shall mean the Secretary or the Secretary's designee.

(b) Standards Adopted. The following Standards of Performance for New Stationary Sources contained in 40 CFR Part 60, revised as of July 1, 2001, or later as specifically indicated, are adopted and incorporated by reference:

(39) 40 CFR 60, Subpart GG, Stationary Gas Turbines; except that the Secretary is not the Administrator for purposes of 40 CFR 60.334(b)(2) and 40 CFR 60.335(f)(1).

(c) The Standards of Performance for New Stationary Sources adopted by reference in this rule shall be controlling over other standards in the air pollution rules of the Department except that any emissions limiting standard contained in or determined pursuant to the air pollution rules of the Department which is more stringent than one contained in a Standard of Performance, or which regulates emissions of pollutants or emissions units not regulated by an applicable Standard of Performance, shall apply.

(d) General Provisions Adopted. The general provisions of 40 CFR Part 60, Subpart A, revised as of July 1, 2001; amended August 27, 2001, at 66 FR 44978; are adopted and incorporated by reference except that the Secretary is not the Administrator for the purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16.

(e) Appendices Adopted. The following appendices of 40 CFR Part 60, revised as of July 1, 2001, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 CFR 60, Appendix A-1, Test Methods 1 through 2F.
2. 40 CFR 60, Appendix A-2, Test Methods 2G through 3C.
3. 40 CFR 60, Appendix A-3, Test Methods 4 through 5I.
4. 40 CFR 60, Appendix A-4, Test Methods 6 through 10B.
5. 40 CFR 60, Appendix A-5, Test Methods 11 through 15A.
6. 40 CFR 60, Appendix A-6, Test Methods 16 through 18.
7. 40 CFR 60, Appendix A-7, Test Methods 19 through 25E.
8. 40 CFR 60, Appendix A-8, Test Methods 26 through 29.
9. 40 CFR 60, Appendix B, Performance Specifications, amended January 12, 2004, at 69 FR 1785.
10. 40 CFR 60, Appendix C, Determination of Emission Rate Change.
11. 40 CFR 60, Appendix D, Required Emission Inventory Information.
12. 40 CFR 60, Appendix F, Quality Assurance Procedures, amended January 12, 2004, at 69 FR 1785.

Subpart A - General Provisions for 40 CFR 60
[Source: Federal Register dated 7/1/98, Federal Register 5/8/98, 2/12/99, 10/17/00, 6/28/02]

The affected unit is subject to the applicable General Provisions of Subpart A. The complete text of Subpart A will be provided upon request.

40 CFR 60.1 Applicability.

40 CFR 60.5 Determination of Construction or Modification.

40 CFR 60.6 Review of Plans.

40 CFR 60.7 Notification and Record Keeping.

40 CFR 60.8 Performance Tests.

40 CFR 60.9 Availability of Information.

40 CFR 60.10 State Authority.

40 CFR 60.11 Compliance with Standards and Maintenance Requirements.

40 CFR 60.12 Circumvention.

40 CFR 60.13 Monitoring Requirements.

40 CFR 60.14 Modification.

40 CFR 60.15 Reconstruction.

40 CFR 60.18 General Control Device Requirements.

40 CFR 60.19 General Notification and Reporting Requirements.

SUBPART GG - STANDARDS OF PERFORMANCE FOR STATIONARY GAS TURBINES
[Source: 44 FR 52798, Sept. 10, 1979, as amended at 52 FR 42434, Nov. 5, 1987; 65 FR 61759, Oct. 17, 2000; 69 FR 41346, July 8, 2004]

40 CFR 60.330 Applicability and Designation of Affected Facility.

The 50 MW gas turbine (Emissions Unit 088) has a maximum heat input rate of 480 MMBtu per hour based on a compressor inlet air temperature of 30° F, 100% load, and the higher heating value of natural gas or distillate oil. It is an affected unit subject to the applicable requirements of Subpart GG. For purposes of this subpart, construction of the replacement gas turbine will begin after July 8, 2004.

40 CFR 60.331 Definitions.

The definitions identified in 40 CFR 60.331 apply to the NSPS Subpart GG requirements for the affected unit.

40 CFR 60.332 Standard for Nitrogen Oxides.

In accordance with paragraph (a)(1) of 40 CFR 60.332, the gas turbine is subject to the following NOx standard.

No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075 \frac{(14.4)}{Y} + F$$

where:

STD = allowable ISO corrected (if required as given in § 60.335(b)(1)) NOx emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NOx emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

In accordance with paragraph (a)(3) of 40 CFR 60.332, use of the NOx emission allowance for fuel-bound nitrogen "F" is optional. The gas turbine shall fire only natural gas as the primary fuel and No. 2 distillate oil (or superior) containing no more than 0.1% sulfur by weight as a restricted alternate fuel. An allowance for fuel-bound nitrogen is not permitted and the "F" value is "zero". No monitoring of the fuel-bound nitrogen content is required. The ISO heat rate for the LM 6000 gas turbine is 8743 Btu/kW-hr for natural gas and 8833 Btu/kW-hr for distillate oil. The NSPS Subpart GG limits are 117.1 ppmvd @ 15% oxygen for natural gas and 115.9 ppmvd @ 15% oxygen for distillate oil.

In accordance with paragraph (f) of 40 CFR 60.332, stationary gas turbines using water or steam injection for control of are exempt from the NSPS NOx emission standard specified in paragraph (a)(1) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine.

40 CFR 60.333 Standard for Sulfur Dioxide.

In accordance with paragraph (b) of 40 CFR 60.333, no owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw). The gas turbine shall fire only natural gas as the primary fuel and No. 2 distillate oil (or superior) containing no more than 0.1% sulfur by weight as a restricted alternate fuel.

40 CFR 60.334 Monitoring of Operations.

NOx Requirements

Water injection shall be used to control NOx emissions from the gas turbine. In accordance with paragraph (d) of 40 CFR 60.334, the permittee shall install a NOx/O2 Continuous Emissions Monitoring System (CEMS) to determine compliance with the NSPS NOx standard in accordance with the following requirements from paragraph (b) of 40 CFR 60.334:

The permittee shall install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NOx and O2 monitors. As an alternative, a CO2 monitor may be used to adjust the measured NOx concentrations to 15 percent O2 by either converting the CO2 hourly averages to equivalent O2 concentrations using Equation F-14a or F-14b in appendix F to Part 75 of this chapter and making the adjustments to 15 percent O2, or by using the CO2 readings directly to make the adjustments, as described in Method 20. The CEMS shall be installed, certified, maintained and operated as follows:

(1) Each CEMS must be installed and certified according to PS 2 and 3 (for diluent) of 40 CFR Part 60, Appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. Appendix F, Procedure 1 is not required. The relative accuracy test audit (RATA) of the NOx and diluent monitors may be performed individually or on a combined basis, i.e., the relative accuracy tests of the CEMS may be performed either:

(i) On a ppm basis (for NOx) and a percent O2 basis for oxygen; or

(ii) On a ppm at 15 percent O2 basis; or

(iii) On a ppm basis (for NOx) and a percent CO2 basis (for a CO2 monitor that uses the procedures in Method 20 to correct the NOx data to 15 percent O2).

(2) As specified in § 60.13(e)(2), during each full unit operating hour, each monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required to validate the hour.

(3) For purposes of identifying excess emissions, CEMS data must be reduced to hourly averages as specified in § 60.13(h).

(i) For each unit operating hour in which a valid hourly average, as described in paragraph (b)(2) of this section, is obtained for both NOx and diluent, the data acquisition and handling system must calculate and record the hourly NOx emissions in the units of the applicable NOx emission standard under § 60.332(a), i.e., percent NOx by volume, dry basis, corrected to 15 percent O2 and International Organization for Standardization (ISO) standard conditions (if required as given in § 60.335(b)(1)). For any hour in which the hourly average O2 concentration exceeds 19.0 percent O2, a diluent cap value of 19.0 percent O2 may be used in the emission calculations.

(ii) A worst case ISO correction factor may be calculated and applied using historical ambient data. For the purpose of this calculation, substitute the maximum humidity of ambient air (Ho), minimum ambient temperature (Ta), and minimum combustor inlet absolute pressure (Po) into the ISO correction equation.

(iii) If the owner or operator has installed a NOx CEMS to meet the requirements of Part 75 of this chapter, and is continuing to meet the ongoing requirements of Part 75 of this chapter, the CEMS may be used to meet the requirements of this section, except that the missing data substitution methodology provided for at 40 CFR Part 75, Subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in § 60.7(c).

The permittee shall use the NOx CEMS required by this permit to determine excess emissions in accordance with the NSPS Subpart GG requirements. However, in cases where the NOx data is invalid or unavailable, documentation of the water-to-fuel ratio will be used to demonstrate proper operation of the NOx control system. Water-to-fuel ratio data shall only be

used as a backup to data collected by the NOx CEMS.

The affected unit is not allowed any allowance for fuel-bound nitrogen. In accordance with paragraph (h)(2) of 40 CFR 60.334, monitoring of the nitrogen content is not required for any fuel.

SO2 Requirements: The current tariff sheet for the natural gas pipeline specifies a maximum total sulfur content of 20.0 grains/100 scf or less. Gas fired in the gas turbine meets the definition of "natural gas" specified in § 60.331(u). In accordance with paragraph (h)(3)(i) of 40 CFR 60.334, monitoring of the sulfur content of natural gas is not required.

In accordance with paragraph (h)(1) of 40 CFR 60.334, the owner or operator shall monitor the total sulfur content of the fuel being fired in the gas turbine. The sulfur content of the fuel must be determined using total sulfur methods described in § 60.335(b)(10). In accordance with paragraph (i)(1) of 40 CFR 60.334, the owner or operator shall determine the sulfur content of distillate oil fired in the gas turbine by using one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank).

Excess Emissions

In accordance with paragraph (j) of 40 CFR 60.334, for each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with § 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under § 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

(1) Nitrogen Oxides. Data collected from the NOx CEMS required by this permit shall be used to determine excess emissions in accordance with the NSPS Subpart GG requirements. However, in cases where NOx data is invalid or unavailable, documentation of the water-to-fuel ratio will be used to demonstrate proper operation of the NOx control system. Water-to-fuel ratio data shall only be used as a backup to data collected by the NOx CEMS.

(ii) No emission allowance for fuel bound nitrogen is permitted.

(iii) For turbines using NO_X and diluent CEMS:

(A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO_X concentration exceeds the applicable emission limit in § 60.332(a)(1) or (2). For the purposes of this subpart, a "4-hour rolling average NO_X concentration" is the arithmetic average of the average NO_X concentration measured by the CEMS for a given hour (corrected to 15 percent O2 and, if required under § 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO_X concentrations immediately preceding that unit operating hour.

(B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO_X concentration or diluent (or both).

(C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the owner or operator has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in § 60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of § 60.335(b)(1).

(2) Sulfur Dioxide. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:

(i) For oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

(ii) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to paragraph (j)(2)(i) of this section. When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option.

(iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.

(3) Ice fog. Each period during which an exemption provided in § 60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

(5) All reports required under § 60.7(c) shall be postmarked by the 30th day following the end of each calendar quarter.

40 CFR 60.335 Test Methods and Procedures.

Initial compliance with the applicable NSPS standards for NOx and SO2 shall be determined in accordance with the following test methods and procedures.

(a) The owner or operator shall conduct the performance tests required in § 60.8, using either:

(1) EPA Method 20,

(2) ASTM D6522-00 (incorporated by reference, see § 60.17), or

(3) EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to determine NO_X and diluent concentration.

(4) Sampling traverse points are to be selected following Method 20 or Method 1, (non-particulate procedures) and sampled for equal time intervals. The sampling shall be performed with a traversing single-hole probe or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.

(5) Notwithstanding paragraph (a)(4) of this section, the owner or operator may test at few points than are specified in Method 1 or Method 20 if the following conditions are met:

(i) You may perform a stratification test for NO_X and diluent pursuant to

(A) [Reserved]

(B) The procedures specified in section 6.5.6.1(a) through (e) appendix A to part 75 of this chapter.

(ii) Once the stratification sampling is completed, the owner or operator may use the following alternative sample point selection criteria for the performance test:

(A) If each of the individual traverse point NO_X concentrations, normalized to 15 percent O2, is within 10 percent of the mean normalized concentration for all traverse points, then you may use 3 points (located either 16.7, 50.0, and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The 3 points shall be located along the measurement line that exhibited the highest average normalized NO_X concentration during the stratification test; or

(B) If each of the individual traverse point NO_X concentrations, normalized to 15 percent O2, is within 5 percent of the mean normalized concentration for all traverse points, then you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid.

(6) Other acceptable alternative reference methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in § 60.332 and shall meet the performance test requirements of § 60.8 as follows:

(1) For each run of the performance test, the mean nitrogen oxides emission concentration (NO_{Xo}) corrected to 15 percent O2 shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices:

$$NO_X = (NO_{Xo})\,(P_r/P_o)^{0.5}\, e^{19\,(H_o - 0.00633)}\,(288°K / Ta)^{1.53}$$

Where:

NO_X = emission concentration of NO_X at 15 percent O2 and ISO standard ambient conditions, ppm by volume, dry basis,

NO_{Xo} = mean observed NO_X concentration, ppm by volume, dry basis, at 15 percent O2,

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg,

P_o = observed combustor inlet absolute pressure at test, mm Hg,

H_o = observed humidity of ambient air, g H2O/g air,

e = transcendental constant, 2.718, and

T_a = ambient temperature, ° K.

(2) The 3-run performance test required by § 60.8 must be performed within 5 percent at 30, 50, 75, and 90 to 100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in § 60.331).

(3) The duct burner shall not operate when the gas turbine is in operation.

(4) If water or steam injection is used to control NOx with no additional post-combustion NOx control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with § 60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20, ASTM D6522-00 (incorporated by reference, see § 60.17), or EPA Method 7E run and shall be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable § 60.332 NOx emission limit.

(5) No allowance for fuel bound nitrogen is permitted.

(6) If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in paragraph (b)(7) of this section) or as part of the initial performance test of the affected unit.

(7) If the owner or operator elects to install and certify a NO_X CEMS under § 60.334(e), then the initial performance test required under § 60.8 may be done in the following alternative manner:

(i) Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load.

(ii) Use the test data both to demonstrate compliance with the applicable NO_X emission limit under § 60.332 and to provide the required reference method data for the RATA of the CEMS described under § 60.334(b).

(iii) The requirement to test at three additional load levels is waived.

(8) Not applicable.

(9) No allowance for fuel bound nitrogen is permitted.

(10) If the owner or operator is required under § 60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

(i) For liquid fuels, ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 (all of which are incorporated by reference, see § 60.17); or

(ii) Monitoring for the sulfur content of natural gas as defined in § 60.331(u) is not required.

(11) The fuel analyses required under paragraphs (b)(9) and (b)(10) of this section 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.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) Instead of using the equation in paragraph (b)(1) of this section, manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in § 60.8 to ISO standard day conditions.

On August 18, 2004, EPA stayed the effectiveness of NESHAP Subpart YYYY for lean premix and diffusion flame gas turbine. The relevant provision of the rule that stays the effectiveness for such units is as follows.

40 CFR 63.6095(d) Stay of Standards for Gas-Fired Subcategories.

If you start up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine or diffusion flame gas-fired stationary combustion turbine as defined by this subpart, you must comply with the Initial Notification requirements set forth in Sec. 63.6145, but need not comply with any other requirement of this subpart until EPA takes final action to require compliance and publishes a document in the Federal Register.

Chapter 40, Code of Federal Regulations, Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories. [Rule 62-204.800(11), F.A.C.]

(a) Definitions. For the purposes of subsection 62-204.800(10), F.A.C., the definitions contained in the various provisions of 40 CFR Part 63 adopted herein shall apply, except that the term, "Administrator," when used in any provisions of 40 CFR Part 63 that is delegated to the Department by the U.S. Environmental Protection Agency, shall mean the Secretary or the Secretary's designee.

(b) Standards Adopted. The following National Emission Standards for Hazardous Air Pollutants contained in 40 CFR Part 63, revised as of July 1, 2001, or later as specifically indicated, are adopted and incorporated by reference:

78. 40 CFR 63, Subpart YYYY, Stationary Combustion Turbines; promulgated March 5, 2004, at 69 FR 10511; amended August 18, 2004, at 69 FR 51184; except that the Secretary is not the Administrator for purposes of 40 CFR 63.6170(c)(1) through (5).

(c) The National Emission Standards for Hazardous Air Pollutants adopted by reference in this rule shall be controlling over other standards in the air pollution rules of the Department, except that any emissions limiting standard contained in or determined pursuant to the air pollution rules of the Department which is more stringent than one contained in a National Emission Standard, or which regulates pollutants or emissions units not regulated by an applicable National Emission Standard, shall apply.

(d) General Subparts Adopted. The following general subparts of 40 CFR Part 63, revised as of July 1, 2001, or later as specifically indicated, are adopted and incorporated by reference.

1. 40 CFR Part 63, Subpart A, General Provisions; amended February 27, 2002, at 67 FR 9156; amended April 5, 2002, at 67 FR 16581; amended February 18, 2003, at 68 FR 7706; amended April 21, 2003, at 68 FR 19375; amended May 20, 2003, at 68 FR 27645; amended May 23, 2003, at 68 FR 28605; amended May 27, 2003, at 68 FR 28774; amended May 28, 2003, at 68 FR 31745; amended May 29, 2003, at 68 FR 32171; amended May 30, 2003, at 68 FR 32585; amended November 13, 2003, at 68 FR 64431; amended December 19, 2003, at 68 FR 70959; amended January 2, 2004, at 69 FR 129; amended February 3, 2004 at 69 FR 5038; amended April 19, 2004, at 69 FR 20967; amended April 22, 2004, at 69 FR 21905; amended April 26, 2004, at 69 FR 22601; amended July 30, 2004, at 69 FR 45943; except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14.

2. 40 CFR Part 63, Subpart B, Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j); amended April 5, 2002, at 67 FR 16581; is adopted and incorporated by reference, subject to the following provisions.

   a. The "effective date of Section 112(g)(2)(B)" as defined in 40 CFR 63.41 shall be July 1, 1997.

   b. The "Notice of MACT Approval" as defined in 40 CFR 63.41 shall be the air construction permit.

   c. The "permitting authority" as defined in 40 CFR 63.41 shall be the Department.

   d. In lieu of the administrative procedures for review of the Notice of MACT Approval as set forth in 40 CFR 63.43(f)(1) through (5), the Department will follow the permit processing procedures of Rule 62-4.055, F.A.C.

e. In lieu of the opportunity for public comment on the Notice of MACT Approval as set forth in 40 CFR 63.43(h), the Department will provide opportunity for public comment on the Notice of MACT Approval pursuant to Rule 62-210.350, F.A.C.

f. The Notice of MACT Approval shall become effective upon issuance of the air construction permit by the Department.

3. 40 CFR Part 63, Subpart C, List of Hazardous Air Pollutants, Petitions Process, Lesser Quantity Designations, Source Category List, revised as of July 1, 2004; amended November 29, 2004, at 69 FR 69320.

4. 40 CFR Part 63, Subpart D, Compliance Extensions for Early Reductions of Hazardous Air Pollutants, except any notice required to be published by the Department shall be prepared by the Department and published by the applicant with proof of publication submitted to the Department.

5. 40 CFR Part 63, Subpart E, Approval of State Programs and Delegation of Federal Authorities; Section 63.90, Program Overview, only.

(e) Appendices Adopted. The following appendices of 40 CFR Part 63, revised as of July 1, 2001, or later as specifically indicated, are adopted and incorporated by reference:

1. Appendix A, Test Methods.
2. Appendix B, Sources Defined for Early Reduction Provisions.
3. Appendix C, Determination of the Fraction Biodegraded (F_{bio}) in a Biological Treatment Unit.
4. Appendix D, Alternative Validation Procedure for EPA Waste and Wastewater Methods.
5. Appendix E, Monitoring Procedure for Non-thoroughly Mixed Open Biological Treatment Systems at Kraft Pulp Mills Under Unsafe Sampling Conditions.

40 CFR 63 Subpart A - General Provisions
[Source: Federal Register dated 3/5/04]

The permittee shall comply with the applicable general provisions identified in Table 7 of 40 CFR 63 Subpart YYYY.

§ 63.1 Applicability.

Additional terms defined in Sec. 63.6175.

§ 63.2 Definitions.

Additional terms defined in Sec. 63.6175.

§ 63.3 Units and abbreviations.

§ 63.4 Prohibited activities and circumvention.

§ 63.5 Preconstruction review and notification requirements.

§ 63.6 Compliance with standards and maintenance requirements.

Subpart YYYY does not contain opacity or visible emission standards.

§ 63.7 Performance testing requirements.

Subpart YYYY contains performance test dates at Sec.63.6110.

Subpart YYYY contains performance test dates at Sec.63.6110.

Subpart YYYY specifies test methods at Sec. 63.6120.

§ 63.8 Monitoring requirements.

Subpart YYYY contains specific requirements for monitoring at Sec.63.6125.

Subpart YYYY does not require COMS.

Subpart YYYY does not require COMS.

Averaging periods for demonstrating compliance are specified at Secs. 63.6135 and 63.6140.

§ 63.9 Notification requirements.

Subpart YYYY does not contain opacity or VE standards.

Notifications for sources not conducting performance tests are due 30 days after completion of performance evaluations.

§ 63.10 Recordkeeping and reporting requirements.

Applies for CO standard if using RATA alternative.

Subpart YYYY does not contain opacity or VE standards.

Subpart YYYY does not require reporting of startup, shutdown, or malfunctions.

Subpart YYYY does not require COMS.

§ 63.11 Control device requirements.

§ 63.12 State authority and delegations.

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

§ 63.14 Incorporations by reference.

§ 63.15 Availability of information and confidentiality.

Subpart YYYY - National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines
[Source: Federal Register dated 3/5/04]

40 CFR 63.6080 What is the purpose of subpart YYYY?

40 CFR 63.6085 Am I subject to this subpart?

40 CFR 63.6090 What parts of my plant does this subpart cover?

40 CFR 63.6092 Are duct burners and waste heat recovery units covered by subpart YYYY?

40 CFR 63.6095 When do I have to comply with this subpart?

40 CFR 63.6100 What emission and operating limitations must I meet?

40 CFR 63.6105 What are my general requirements for complying with this subpart?

40 CFR 63.6110 By what date must I conduct the initial performance tests or other initial compliance demonstrations?

40 CFR 63.6115 When must I conduct subsequent performance tests?

40 CFR 63.6120 What performance tests and other procedures must I use?

40 CFR 63.6125 What are my monitor installation, operation, and maintenance requirements?

40 CFR 63.6130 How do I demonstrate initial compliance with the emission and operating limitations?

40 CFR 63.6135 How do I monitor and collect data to demonstrate continuous compliance?

40 CFR 63.6140 How do I demonstrate continuous compliance with the emission and operating limitations?

40 CFR 63.6145 What notifications must I submit and when?

40 CFR 63.6150 What reports must I submit and when?

40 CFR 63.6155 What records must I keep?

40 CFR 63.6160 In what form and how long must I keep my records?

40 CFR 63.6165 What parts of the General Provisions apply to me?

40 CFR 63.6170 Who implements and enforces this subpart?

40 CFR 63.6175 What definitions apply to this subpart?

As previously specified, EPA stayed the effectiveness of NESHAP Subpart YYYY for lean premix gas-fired stationary combustion turbines and diffusion flame gas-fired stationary combustion turbines. For purposes of this rule, the affected unit is considered a diffusion flame gas-fired combustion turbine. Until EPA takes final action to require compliance and publishes a document in the Federal Register, only the Initial Notification requirements as set forth in Sec. 63.6145 apply. The unit is permitted to fire up to 475 hours of distillate oil per year as a restricted alternate fuel. An oxidation catalyst controls organic compounds. The following tables reflect this applicability.

Tables to Subpart YYYY of Part 63.

As stated in § 63.6100, you must comply with the following emission limitations:

TABLE 1 TO SUBPART YYYY OF PART 63. EMISSION LIMITATIONS

For each new or reconstructed stationary combustion turbine described in § 63.6100 which is	*You must meet the following emission limitations*
3. a diffusion flame gas-fired stationary combustion turbine as defined in this subpart, or	Limit the concentration of formaldehyde to 91 ppbvd or less at 15 percent O2.

As stated in § 63.6100 and § 63.6140, you must comply with the following operating limitations:

TABLE 2 TO SUBPART YYYY OF PART 63. OPERATING LIMITATIONS

For	*You must*
1. each stationary combustion turbine that is required to comply with the emission limitation for formaldehyde and is using an oxidation catalyst.	maintain the 4-hour rolling average of the catalyst inlet temperature within the range suggested by the catalyst manufacturer.

As stated in § 63.6120, you must comply with the following requirements for performance tests and initial compliance demonstrations:

TABLE 3 TO SUBPART YYYY OF PART 63. REQUIREMENTS FOR PERFORMANCE TESTS AND INITIAL COMPLIANCE DEMONSTRATIONS

You must	*Using*	*According to the following requirements*
a. demonstrate formaldehyde emissions meet the emission limitations specified in Table 1 by a performance test initially and on an annual basis AND	Test Method 320 of 40 CFR part 63, appendix A; ASTM D6348–03 provided that %R as determined in Annex A5 of ASTM D6348– 03 is equal or greater than 70% and less than or equal to 130%; or other methods approved by the Administrator.	Formaldehyde concentration must be corrected to 15 percent O2, dry basis. Results of this test consist of the average of the three 1 hour runs. Test must be conducted within 10 percent of 100 percent load.
b. select the sampling port location and the number of traverse points AND	Method 1 or 1A of 40 CFR part 60, Appendix A § 63.7(d)(1)(i).	If using an air pollution control device, the sampling site must be located at the outlet of the air pollution control device.
c. determine the O2 concentration at the sampling port location AND	Method 3A or 3B of 40 CFR part 60, Appendix A.	Measurements to determine O2 concentration must be made at the same time as the performance test.
d. determine the moisture content at the sampling port location for the purposes of correcting the formaldehyde concentration to a dry basis.	Method 4 of 40 CFR part 60, appendix A or Test Method 320 of 40 CFR part 63, Appendix A, or ASTM D6348–03.	Measurements to determine moisture content must be made at the same time as the performance test.

As stated in §§ 63.6110 and 63.6130, you must comply with the following requirements to demonstrate initial compliance with emission limitations:

TABLE 4 TO SUBPART YYYY OF PART 63. INITIAL COMPLIANCE WITH EMISSION LIMITATIONS

For the	*You have demonstrated initial compliance if*
Emission limitation for formaldehyde.	the average formaldehyde concentration meets the emission limitations specified in Table 1.

As stated in §§ 63.6135 and 63.6140, you must comply with the following requirements to demonstrate continuing compliance with operating limitations:

TABLE 5 OF SUBPART YYYY OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITATIONS

For each stationary combustion turbine complying with the emission limitation for formaldehyde	*You must demonstrate continuous compliance by*
1. with an oxidation catalyst	continuously monitoring the inlet temperature to the catalyst and maintaining the 4-hour rolling average of the inlet temperature within the range suggested by the catalyst manufacturer.

As stated in § 63.6150, you must comply with the following requirements for reports:

TABLE 6 OF SUBPART YYYY OF PART 63.—REQUIREMENTS FOR REPORTS

If you own or operate a	*You must*	*According to the following requirements*
1. stationary combustion turbine which must comply with the formaldehyde emission limitation.	report your compliance status	semiannually, according to the requirements of § 63.6150.
3. a lean premix gas-fired stationary combustion turbine or a diffusion flame gas-fired stationary combustion turbine as defined by this subpart, and you use any quantity of distillate oil to fire any new or existing stationary combustion turbine which is located at the same major source.	Report (1) the number of hours distillate oil was fired by each new or existing stationary combustion turbine during the reporting period, (2) the operating limits provided in your federally enforceable permit, and any deviations from these limits, and (3) any problems or errors suspected with the meters.	annually, according to the requirements in § 63.6150.