

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.

**Rick Scott**

Governor

John H. Armstrong, MD, FACS

State Surgeon General & Secretary

Vision: To be the Healthiest State in the Nation**MAY 30, 2013**

ELECTRONIC CORRESPONDENCE

michael.oneill@pw.utc.com**NOTICE OF PERMIT**

United Technologies Corporation
17900 Beeline Highway (SR-710)
Jupiter, FL 33478

Air Permit No.: 0990021-032-AC**Project:** Construction Permit**PALM BEACH COUNTY, FLORIDA***Authorized Representative:*

Michael O'Neill, Manager
Assembly, Instrumentation, & Test Operations (CT & FL) Systems
Engineering & Validation

Dear Mr. O'Neill:

Enclosed is the above referenced air pollution construction permit to perform the proposed work on a source of air pollution located in Palm Beach County. This permit is issued pursuant to Chapter 403.087 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. Any party to this order (permit) has the right to seek judicial review of it pursuant to Section 120.68, F.S., by filing a notice of appeal pursuant to Rule 9.110 of the Florida Rules of Appellate Procedure with: the legal office of the Department of Health Palm Beach County at P.O. Box 29 (800 Clematis Street), West Palm Beach, Florida 33402-0029; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days after this order (permit) is filed with the clerk of the Health Department.

Executed in West Palm Beach, Florida

DEPARTMENT OF HEALTH PALM BEACH COUNTY

James E. Stormer, QEP, Environmental Administrator
Air & Waste Section
Division of Environmental Public Health

Florida Department of Health

Palm Beach County, Division of Environmental Public Health
P.O. Box 29, 800 Clematis Street, West Palm Beach, FL 33402
PHONE: 561-837-5900 • FAX: 561-837-5294

www.FloridasHealth.com

TWITTER: HealthyFLA

FACEBOOK: FLDepartmentofHealth

YOUTUBE: fldoh

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF AIR CONSTRUCTION PERMIT and all copies were sent by **email** (with Received Receipt) before the close of business on _____ to the person(s) listed:

Michael O'Neill, Manager	email	michael.oneill@pw.utc.com
Assembly, Instrumentation, & Test Operations (CT & FL)		

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this NOTICE OF AIR CONSTRUCTION PERMIT and all copies were sent by **email** (with Received Receipt) on the same date to the person(s) listed or as otherwise noted:

Brian Storey, Golder Associates	email	Brian_Storey@golder.com
Dean Gee, UTC	email	Shau.Gee@pwr.utc.com
Joe Lurix	email	Joe.Lurix@dep.state.fl.us
Southeast District Office, FDEP		

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)	_____ (Date)

FINAL DETERMINATION

**United Technologies Corporation
Air Permit No. 0990021-032-AC**

Permittee:

United Technologies Corporation
17900 Beeline Highway (SR-710)
Jupiter, FL 33478

Authorized Representative: Michael O'Neill, Manager
Assembly, Instrumentation, & Test Operations (CT & FL) Systems Engineering & Validation

Project: Air construction permit to modify the existing A-4 test stand to accommodate the development and testing program for Pratt & Whitney's FT4000 gas turbine engines

Location: 17900 Beeline Highway (SR 710), Jupiter, Palm Beach County

UTM: Zone 17; 564.9 km E; 2977.3 km N; **Latitude:** 26° 54' 59" North / **Longitude:** 80° 20' 47" West

Comments and Revisions

The Health Department issued the draft permit along with the intent to issue on May 06, 2013. The Health Department received proof of publication on May 10, 2013 that the required PUBLIC NOTICE was published in the May 10, 2013 issue of The Palm Beach Post Newspaper. No comments were made by the general public, or the Florida Department of Environmental Protection.

On May 14, 2013, the Health Department received the following comments from the applicant. The following summarizes the comments and the Department's response.

1. Technical Evaluation (Page 5 of 13): The capacity of the RICE is listed as 7400 Btu/bhp-hr instead of the correct capacity of 8732 Btu/bhp-hr.
Response: The capacity is corrected in the technical evaluation
2. Technical Evaluation (Page 5 of 13): The operating hours per year of the RICE should be 1130 instead of 904.
Response: The operating hours of the RICE is corrected to 1130 hrs/yr.
3. Permit, Section III (Page 9 of 34): Subsection A should be revised to indicate test stand A-4 instead of A-3. The facility finalized plans to utilize test stand A-4 at the facility to test the FT4000 turbines.
Response: The correction is made in the final permit.
4. Permit, Section III (Page 9 of 34): Item 1 indicates that the testing of the turbines shall utilize only JP-8 fuel. This is the existing permit condition, and should be revised to include natural gas as requested in the application.
Response: The correction is made. The wording "JP-8 fuel" is replaced with "natural gas."

5. Permit, Section III (Page 9 of 34): Item 4 should indicate that the hours limitation of 904 hours per year is for testing of FT4000 when firing natural gas only. The test stand is currently permitted with unlimited hours of operation while testing using JP-8 as fuel.

Response: The condition is revised to include “on natural gas.”

6. The Health Department made following correction in page 10 of 34.

FROM

Permitting Note: Since this RICE is manufactured in 2004, it is not subject to the regulations of 40 CFR 60 Subpart **IIII** “New Source Performance Standards for Spark Ignition (SI) Engines.”

TO

Permitting Note: Since this RICE is manufactured in 2004, it is not subject to the regulations of 40 CFR 60 Subpart **JJJJ** “New Source Performance Standards for Spark Ignition (SI) Engines.”

FINAL ACTION

The final action of the Health Department is to issue the air pollution construction permit, as proposed, with the above noted corrections.

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Governor

John H. Armstrong, MD, FACS

State Surgeon General & Secretary

Vision: To be the Healthiest State in the Nation**MAY 30, 2013****Electronic Correspondence****michael.oneill@pw.utc.com****ISSUED TO (PERMITTEE):**

United Technologies Corporation
17900 Beeline Highway (SR-710)
Jupiter, FL 33478

Authorized Representative:

Michael O'Neill, Manager
Assembly, Instrumentation & Test Operations

ARMS No.	0990021
Air Permit No.	0990021-032-AC
Issued:	May 30, 2013
Expires:	May 29, 2014

LOCATED AT:

Project Name: To modify the existing A-4 test stand to accommodate the development and testing program for Pratt & Whitney's FT4000 gas turbine engines. The modification includes the installation of a compressor reciprocating internal combustion engine (RICE) to boost the incoming natural gas supply to the desired pressure needed for testing and development of the FT4000 engines.

Project Location: 17900 Beeline Highway (SR 710), Jupiter, FL 33478

UTM Coordinates: Zone 17; 564.9 km E; 2977.3 km N; **Latitude:** 26° 54' 59" North / **Longitude:** 80° 20' 47" West

SIC: 3724 [Aircraft Engines and Engine parts]

STATEMENT OF BASIS:

The Florida Department of Environmental Protection (DEP) has permitting jurisdiction for this project pursuant to Section 403.087 of the Florida Statutes (F.S.). However, in accordance with Section 403.182, F.S., the DEP recognizes the Department of Health PALM BEACH County (Health Department) as the approved local air pollution control program in Palm Beach County. As such, the DEP and the Health Department have entered into a Specific Operating Agreement that authorizes the Health Department to issue or deny permits to for this type of air pollution source located in Palm Beach County. Accordingly, the Health Department issues this permit under the provisions of Chapter 403, F.S. and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The permittee is authorized to perform the work for the proposed project in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Health Department.

ISSUED BY:

Executed in West Palm Beach, Florida

DEPARTMENT OF HEALTH PALM BEACH COUNTY

James E. Stormer, Q.E.P., Environmental Administrator

Air & Waste Section

Division of Environmental Public Health

Florida Department of Health

Palm Beach County, Division of Environmental Public Health
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SECTION I. FACILITY HISTORY

PERMIT HISTORY

02/15/2013: Health Department received the permit application
4/5/2013: Additional Information submitted by the permittee
5/6/2013: Intent to Issue and the Draft permit issued
5/10/2013: Public notice is published

PROJECT DESCRIPTION

Pratt & Whitney Rocketdyne (P&W) and Sikorsky Aircraft Corporation (SAC), divisions of United Technologies Corporation (UTC), operate adjacent facilities including an aerospace manufacturing, research and development facility, located on a combined 7,000-acre site in rural northwest Palm Beach County, Florida. Pratt & Whitney Space Propulsion Operations Headquarters is the company's principal engine test and repair facility, primarily dedicated to research and development. P&W has over 50 test stands specifically designed to perform evaluations of rocket engines, jet engines, as well as individual components for each type of engine.

The Health Department issued a Title V air operating permit no. 0990021-013-AV to United Technologies Corporation on February 04, 2011.

The purpose of this construction permit is to modify the existing A-4 test stand to accommodate the development and testing program for Pratt & Whitney's FT4000 gas turbine engines. The modification includes the installation of a compressor reciprocating internal combustion engine (RICE) to boost the incoming natural gas supply to the desire pressure needed for testing and development of the FT4000 engines. The proposed RICE engine is manufactured by Caterpillar and is run with natural gas. This new configuration will add a system to mount the engines at ground level (instead of suspended from elevation mount as currently configured) for testing the FT4000 engines. The FT4000 engine series will be manufactured for stationary use.

The sources of air emissions are the RICE engine and the testing of turbines. The potential air emissions of NO_x, CO, PM₁₀, and SO₂ from this project are 36.98 tons per year (TPY), 27.66 tpy, 1.13 tpy, and 0.57 tpy respectively.

Based on the permit application, this facility is **not** a major source of hazardous air pollutants (HAPs).

REGULATORY CLASSIFICATION

Title III: The facility is **not** a major source of hazardous air pollutants (HAPs).
Title IV: The facility will **not** operate 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 62-213, F.A.C.
PSD: The permittee **is a** PSD facility in accordance with Rule 62-212.400, F.A.C.
RACT: Some of the emission units at the facility **are** subject to the RACT Rules.
NSPS: The facility **is** subject to the requirements of 40 CFR 60 Subpart Dc, Standards of Performance for Small Industrial/Commercial/Institutional Boilers.
NESHAP: The facility is subject to the requirements of 40 CFR 61, Subpart M, Asbestos, 40 CFR 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)"

SECTION I. FACILITY HISTORY**PERMIT CONTENT**

- Section I: Summary Information
- Section II: Facility-Wide Specific Conditions
- Section III: Emissions Unit Specific Conditions
- Section IV: Appendices

Appendix A: General Permit Conditions

Appendix B: Abbreviations, Acronyms, Citations, and Identification Numbers
(Version dated 02/05/97)

Appendix C: Test Procedures

Appendix D: Emissions Factors for NO_x and CO at various loads during the testing of FT4000 Gas Turbines

SECTION II. FACILITY WIDE GENERAL CONDITIONS**1.0 ADMINISTRATIVE REQUIREMENTS**

- 1.1 Regulating Agencies: All applications, reports, tests, and notifications shall be submitted to the Air and Waste Section of the Department of Health PALM BEACH County (Health Department) at P.O. Box 29 (800 Clematis Street), West Palm Beach, Florida, 33402-0029, and telephone number (561) 837-5900. In addition, *copies* shall be submitted to the Air Program, Southeast District Office, Florida Department of Environmental Protection (DEP) at 400 North Congress Avenue, Suite 200, West Palm Beach, Florida, 33401. **[Specific Operating Agreement]**
- 1.2 General Conditions: The permittee shall be aware of, and operate under the attached General Conditions listed in *Appendix A* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. **[Rule 62-4.160, F.A.C.]**
- 1.3 Citation Format: *Appendix B* of this permit provides the format for citing applicable regulations.
- 1.4 Application for a Title V Operation Permit: A facility that commences operations as a Title V source after October 25, 1995, or that otherwise becomes subject to the permitting requirements of Chapter 62-213, F.A.C., after October 25, 1995, must file an application for an operations permit at least ninety days before the expiration of the source's air construction permit, but no later than 180 days after commencing operation, unless a different application due date is provided at Rule 62-204.800, F.A.C., or an earlier date is provided in the air construction permit. **[Rule 62-213.420(1)(a) 2, F.A.C.]**
- (a) Any applicant for a Title V permit, permit revision or permit renewal must submit an application form number 62-210.900(1), which must include all the information specified by subsection 62-213.420 (3) F.A.C., except that an application for permit revision must contain only the information related to the proposed change(s) from the currently effective Title V permit and any other requirements that become applicable at the time of the application. The applicant shall include information concerning fugitive emissions and stack emissions in the application. Each application for permit, permit revision, or permit renewal shall be certified by the responsible official in accordance with subsection 62-213.420(4), F.A.C. **[Rule 62-213.420(1)(b) 1, F.A.C.]**
- 1.5 Applicable Regulations: This facility is subject to the following regulations: Florida Administrative Code Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. **[Rule 62-210.300, F.A.C. and the SOA]**
- 1.6 Source Obligation:
- (a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the PBCHD in the permit.
- (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of Rules 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. **[Rule 62-212.400(12), F.A.C.]**

SECTION II. FACILITY WIDE GENERAL CONDITIONS**2.0 EMISSION LIMITING STANDARDS**

2.1 Emissions of Hazardous Air Pollutants (HAPs): The facility-wide emissions of a single HAP are limited to 9.9 tons in any consecutive 12-month period (rolling total). The facility-wide emissions of total HAPs are limited to 24.9 tons in any consecutive 12-month period (rolling total).

[Applicant's request to become a synthetic minor facility for HAPs]

2.2 General Particulate Emission Limiting Standards: General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, the permittee shall not:

(a) Cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as No. 1 on the Ringelmann Chart (20 percent opacity). **[Rule 62-296.320(4)(b)1., F.A.C.]**

(b) If the presence of uncombined water is the only reason for failure to meet the visible emissions standards given in Rule 62-296.320(4)1, F.A.C., such failure shall not be a violation of the rule. **[Rule 62-296.320(4)(b)3, F.A.C.]**

(c) All visible emissions test performed pursuant to the requirements of Rule 62-296.320(b)(4)1, F.A.C. shall use EPA Reference Method 9, and shall meet all applicable requirements of Chapter 62-297, F.A.C. **[Rule 62-296.320(4)(b)1, F.A.C.]**

2.3 Prevention of Accidental Releases (Section 112(r) of CAA): At such time as the requirements of 40 CFR Part 68 are applicable to this source, the permittee shall: **[Section 112(r)(7)(B)(iii) of the CAA, 40 CFR Part 68, Section 252.941(1)(c), F.S.]**

(a) Submit a Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office RMP Reporting Center.

(b) Report to the appropriate representative of the Department of Community Affairs (DCA), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the permittee is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the Clean Air Act (CAA).

(c) Submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S. and Rule 9G-21, F.A.C.

Note: Currently the only substance stored at this facility in substantial quantities is distillate fuel. However, neither distillate fuel nor its components are among the regulated substances listed in Section (r)(b) of CAA (40 CFR 68.130). Based on this information provided by the permittee, the requirements of 40 CFR Part 68 are not applicable to this facility.

2.4 Objectionable Odors: Objectionable Odor Prohibited: The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. **[Rule 62-296.320(2), F.A.C.]**

Note: An objectionable odor is defined as 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. [Rule 62-210.200(187), F.A.C.]

2.5 General VOC Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions: The permittee shall allow no person to store, pump, handle, process, load, unload, or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. **[Rule 62-296.320(1)(a), F.A.C.]**

2.6 Unconfined Particulate Emission Limiting Standards: Unconfined Emissions of Particulate Matter: The permittee shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity,

SECTION II. FACILITY WIDE GENERAL CONDITIONS

including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions shall include the following:

- (a) Paving and maintenance of roads, parking areas and yards.
- (b) Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- (c) Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
- (d) Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- (e) Landscaping or planting of vegetation.
- (f) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- (g) Confining abrasive blasting where possible.
- (h) Enclosure or covering of conveyor systems.

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

3.0 PERFORMANCE STANDARDS

3.1 Circumvention: The permittee shall not circumvent air pollution control equipment/methods or allow the emission of air pollutants without the equipment/methods operating properly. **[Rule 62-210.650, F.A.C.]**

3.2 Excess Emissions Requirements:

- (a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units 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 Health Department for longer duration. **[Rule 62-210.700(1), F.A.C.]**
- (b) 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 start-up, shutdown, or malfunction are prohibited. **[Rule 62-210.700(4), F.A.C.]**
- (c) In case of excess emissions resulting from malfunctions, the permittee shall notify the Air Pollution Control Section of the Health Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. **[Rule 62-210.700(6), F.A.C.]**
- (d) Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust the maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest. **[Rule 62-210.700(5), F.A.C.]**

4.0 COMPLIANCE MONITORING REQUIREMENTS

4.1 Duration: Unless otherwise specified in this permit, all records and reports required by this permit shall be kept for at least 5 years from the date the information was recorded. **[Rule 62-213.440(b), & Rule 62-4.160(14)(b), F.A.C.]**

4.2 Test Procedures: All test methods and procedures shall be performed in accordance with the applicable requirements of Chapter 62-297, F.A.C., summarized in *Appendix C* of this permit. **[Rule 62-297.100, F.A.C.]**

4.3 Operational Rate During Testing: Unless otherwise stated in the applicable emission limiting standard for a rule, 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 impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test

SECTION II. FACILITY WIDE GENERAL CONDITIONS

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.]**

- 4.4 **Stack Testing Facilities:** The permittee shall install and maintain permanent / temporary stack testing facilities in accordance with the requirements provided in *Appendix C* of this permit. **[Rule 62-297.310(6), F.A.C.]**
- 4.5 **Test Notification:** At least 15 days prior to the date on which each formal compliance test is to begin, the permittee shall notify the Health Department in writing of: the test date; the expected test time; the location of the test; the facility contact person responsible for coordinating the test; and the person or company conducting test. The 15 day notification requirement may be waived at the discretion of the Health Department. Likewise, if circumstances prevent testing during the 60-day test window specified for the emissions unit, the owner or operator may request an alternate test date before the expiration of this window. **[Rule 62-297.310(7)(a)9., F.A.C.]**
- 4.6 **Special Compliance Tests:** When the Health 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 DEP rule or permit 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 Health Department. **[Rule 62-297.310(7)(b), F.A.C.]**

5.0 REPORTS REQUIRED

- 5.1 **Annual Operations Report:** Before April 1st of each year, the owner or operator shall submit an Annual Operations Report *[DEP Form No. 62-210.900(5)]* to the Health Department, which summarizes operations for the previous calendar year. If the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a copy to DEP or Health Department. **[Rule 62-210.370(3), F.A.C.]**
- 5.2 **Excess Emissions Report:** If excess emissions occur, the Health Department may request a written summary report of the incident. **[Rules 62-4.130 and 62-210.700(6), F.A.C.]**
- 5.3 **Emission Compliance Stack Test Reports:** For each required emissions compliance test, a report indicating the results of the test shall be filed with the Health Department as soon as practical, but no later than 45 days after the last sampling run is completed. The report shall provide sufficient detail on the tested emissions unit and the procedures used to allow the Health Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in **Rule 62-297.310(8)(c), F.A.C.** and summarized in *Appendix C* of this permit. Additional report information may be specified for a given group of emissions units in this permit. **[Rule 62-297.310(8), F.A.C.]**
- 5.4 **Annual HAP Emissions – Recordkeeping:** The permittee shall monitor compliance with the HAPs emissions limits, specified in condition 1 of this section, on a monthly basis. If the facility-wide rolling 12-month total emissions do not exceed 80% of the HAPs emission limits as specified, the permittee shall continue to monitor facility-wide HAPs emissions on a monthly basis (rolling 12-month total). If the facility-wide rolling 12-month total emissions of HAPS exceed 80% of the HAPs emissions limits as specified, the permittee shall monitor facility-wide HAPs emissions on a daily basis (rolling 365-day total). When the facility-wide rolling 365-day total emissions of HAPs do not exceed 80% of the specified HAPS emissions limits for 30 consecutive days, then monthly monitoring of HAPs emissions can be resumed.

The permittee shall maintain and record the following information.

- a. The individual and total HAP fraction for each solvent/coating material that contains or emits HAPs. If the HAP content is provided by the material supplier or manufacturer as a range, then the permittee must use the upper limit of the range for determining compliance.
- b. The solvent utilization on a monthly basis for all solvents that contain or emit HAPs.
- c. The individual and total monthly HAP emissions for each material, calculated from the monthly material utilization and the individual and total HAP fraction, calculated for the preceding month no later than 20 days after the end of that month.

SECTION II. FACILITY WIDE GENERAL CONDITIONS

- d. For fuel burning units, the monthly emissions of individual HAP and total HAPs shall be estimated based on the monthly fuel usage; and the emissions factor provided by the manufacturer or AP-42 *"Compilation of Air Pollutant Emission Factors."*
- e. Using the monthly totals computed in subsection (c) and (d) above, rolling consecutive 12-month total emissions for individual and total HAPs for the entire facility shall be calculated for the previous twelve calendar months.

[0990021-020-AC, Applicant's request to become a synthetic minor facility for HAPs]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION A. This subsection of the permit addresses the following emissions unit:

EU ID No	Brief Description
	FT4000 Gas Turbine Testing at Test Stand A-4 Maximum Heat Input is 653.3 MMbtu/hr and average heat input of 367.7 MMbtu/hr 2-04-003-01 -- Internal combustion engine, Engine Testing, Natural Gas, Turbine (Million Cubic Feet of Natural Gas Burned)

The FT4000 gas Turbine testing is conducted at the Test Stand A-4. This test stand is currently included in the Title V air operation permit as an unregulated emission unit and is grouped with other test stands under Emissions Unit number 069 of the Title V permit. Currently, military and commercial aircraft engines are tested at these test stands (EU 069).

This permit is issued to authorize the testing of FT4000 gas turbines at test stand A-4. This project also includes a reciprocating internal combustion engine (RICE) that is permitted under a different emissions unit number. The facility will keep track of air emissions from this project (both testing gas turbines and the RICE).

AIR POLLUTION CONTROL EQUIPMENT

1. Permitted Capacity: The permittee shall not allow, cause, suffer or permit the operation of the test stand, when testing the FT4000 gas turbines, in excess of the following capacities without prior authorization from the Permitting Authority:
 - The maximum heat input is 653.3 MMbtu/hr. The testing of the gas turbines shall utilize only natural gas or JP-8 fuel.
2. Air Emissions Controls: The permittee shall install, operate, and maintain the proposed air pollution control equipment in accordance with the manufacturer's instructions and recommendations. The air pollution control equipment shall be on line and functioning properly when operating the emissions unit.
[Rule 62-210.650, F.A.C.]
3. Notification to the Department: The permittee shall notify the Health Department within 30 days of commencing the testing of the FT4000 gas turbine. **[Rule 62-4.070(3), F.A.C.]**

PERFORMANCE STANDARDS

4. Hours of Operation: The hours of operation of the test stand, while testing the FT4000 gas turbines on natural gas , are limited to 904 hours per year. **[Applicant request to escape PSD Regulations, and Rule 62-4.070(3), F.A.C.]**
5. Natural Gas Consumption: The fuel consumption from the test stand, while testing FT4000 gas turbines, shall not exceed 327.5 million cubic feet of natural gas in any 12 consecutive months, rolling total. **[Applicant request to escape PSD Regulations, and Rule 62-4.070(3), F.A.C.]**

[Permitting Note: Based on operating hours limit and the fuel consumption limit, the emissions of NOx and CO are restricted to 37 tons per year and 27.6 tons per year – less than the threshold for significant emission rate pursuant to PSD regulations.]

COMPLIANCE MONITORING REQUIREMENTS

6. Emissions Inventory: The permittee shall maintain a current emissions inventory for each testing cycle of the gas turbine. As a minimum, the emissions inventory shall be reviewed and revised monthly, as needed. The emissions inventory shall include the following information:
 - (a) The gas turbine type

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

- (b) The operating load (psia) and duration of each operating load
- (c) The average heat input rate (MMbtu/hr) during each operating load
- (d) Monthly Hours of Operation
- (e) Monthly Fuel consumption [mmcf of natural gas]
- (f) Emissions estimation for NOx and CO based on each operating load during each test
- (g) Monthly estimation of NOx and CO emissions

[Rule 62-4.070(3), F.A.C.]

7. Monitoring of operating load: The permittee shall monitor hourly average operating load (psia) and hourly heat input rate (MMbtu/hr). The emission factors, provided in permit application and presented in appendix D, at each operating load (psia) shall be used in estimating the monthly NOx and CO emissions. The monthly emissions estimates are used in calculating the 12-month rolling emissions of NOx and CO. The yearly estimates of NOx and CO shall be below the PSD significant emission rates as specified in Chapter 62-212, F.A.C. **[Rules 62-4.070 and 62-4.160(2), F.A.C.]**
8. Testing of CO and NOx: In order to verify the emissions factors for CO and NOx, used in the permit application (shown in **appendix D**), the permittee shall measure the emissions of CO and NOx at various loads during the testing of FT4000 gas turbines. At a minimum, three emissions tests (runs) shall be conducted at each load. The permittee shall evaluate the measured data with the emissions data presented in **appendix D**. If the measured concentrations (emissions) are higher than the emissions rates presented in the application, then the permittee shall use the higher emissions rate in estimating the actual emissions of NOx and CO. **[Rule 62-4.070(3), F.A.C.]**
9. Special Compliance Tests: When the Health 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 DEP rule or permit 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 Health Department.

REPORTING AND RECORDKEEPING REQUIREMENTS

10. Monthly Emission Records: The permittee shall maintain monthly emission records as described in Specific Condition 6 of this Section, on or before the 15th of each month, to summarize site-wide emissions of NOx and CO for the previous 12 months. These records shall include, as a minimum, the monthly emissions and the rolling 12-month total emissions for NOx and CO. These records shall be kept on site for a period of no less than five years and be made available to PBCHD representatives upon request. **[Rule 62-297.310(7) (b), F.A.C.]**

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

SUBSECTION B. This subsection of the permit addresses the following emissions unit:

EU ID No	Brief Description
	FT4000 Compressor Reciprocating Internal Combustion Engine (RICE) Engine The proposed RICE will be a Caterpillar Model No. G3412C. The RICE being considered is manufactured in 2004, and has the rating of 676 hp. Internal Combustion Engine, Industrial, Natural Gas, Reciprocating (MMCF Burned)

Permitting Note: Since this RICE is manufactured in 2004, it is not subject to the regulations of 40 CFR 60 Subpart JJJJ “New Source Performance Standards for Spark Ignition (SI) Engines.” This RICE is subject to the regulations of 40 CFR 63 Subpart ZZZZ “National Emissions Standards for Hazardous Air Pollutants for RICE.” According to Subpart ZZZZ, this engine is classified as “spark ignition non-emergency four stroke lean burn (4SLB) engine.”

AIR POLLUTION CONTROL EQUIPMENT

1. Air Emissions Controls: The permittee shall install, operate, and maintain any existing air pollution control equipment in accordance with the manufacturer’s instructions and recommendations. The air pollution control equipment shall be on line and functioning properly when operating the emissions unit.
[Rule 62-210.650, F.A.C.]
2. Notification to the Department: The permittee shall notify the Health Department within 10 days after the RICE is installed. The permittee shall include the manufacturing date of the RICE in the notification. [Rule 62-4.070(3), F.A.C.]

PERFORMANCE STANDARDS

3. Hours of Operation: The hours of operation of the RICE are limited to 1130 hours in any 12 consecutive months, rolling total. [Applicant’s request to escape the PSD Regulations, and Rule 62-4.070(3), F.A.C.]
4. Natural Gas Consumption: The fuel consumption from the RICE shall not exceed 6.33 million cubic feet of natural gas in any 12 consecutive months, rolling total. [Applicant’s request to escape the PSD Regulations, and Rule 62-4.070(3), F.A.C.]

RECORDKEEPING REQUIREMENTS

5. Fuel consumption and Hours of Operation monitoring: Within the first 15 days of each month, the permittee shall record in a written log the following information:
 - (1) Million cubic feet of natural gas consumed for the previous month of operation;
 - (2) Million cubic feet of natural gas consumed for the previous consecutive 12 months of operation
 - (3) Hours of operation for the previous month of operation, and
 - (4) Hours of operation for the previous consecutive 12 months of operation.

[Rule 62-4.070(3), F.A.C.]

COMPLIANCE MONITORING REQUIREMENTS

6. Applicability of 40 CFR 63 Subpart ZZZZ: This reciprocating engine is subject to the regulations of 40 CR part 63 Subpart ZZZZ “National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines.” [Rule 62-204.800(11), F.A.C.]

40 CFR Part 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [Rule 62-204.800(11), F.A.C.]

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**63.6580 What is the purpose of subpart ZZZZ?**

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) not applicable

(f) not applicable

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) not applicable

(ii) not applicable

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.*

(i) not applicable

(ii) not applicable

(iii) not applicable

(3) *Reconstructed stationary RICE.*

(i) not applicable

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

(ii) not applicable.

(iii) not applicable

(b) *Stationary RICE subject to limited requirements.* Not applicable

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* Not applicable

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.*

(1) If you have an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

(2) Not Applicable

(3) Not Applicable

(4) Not Applicable

(5) Not Applicable

(6) Not Applicable

(7) Not Applicable

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in § 63.6645 and in 40 CFR part 63, subpart A.

Emission and Operating Limitations

63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Not Applicable

63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Not Applicable

63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

Not Applicable

63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

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Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

(b) Not applicable

(c) Not Applicable

(d) Not Applicable

(e) Not Applicable

(f) Not Applicable

63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

Not Applicable

General Compliance Requirements**63.6605 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

Testing and Initial Compliance Requirements**63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

Not Applicable

63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

Not Applicable

63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or **an existing stationary RICE located at an area source of HAP emissions** you are subject to the requirements of this section.

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(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

- (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
- (2) The test must not be older than 2 years.
- (3) The test must be reviewed and accepted by the Administrator.
- (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Not Applicable

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

- (i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

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Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, $ds m^3/J$ ($dscf/10^6 Btu$).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, $ds m^3/J$ ($dscf/10^6 Btu$)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2 , as follows:

$$X_{co_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

X_{co_2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 — 15 percent O_2 , the defined O_2 correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2 .

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{co_2} = CO_2 correction factor, percent.

$\%CO_2$ = Measured CO_2 concentration measured, dry basis, percent.

(f) Not Applicable

(g) Not Applicable

(h) Not Applicable

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) Not Applicable

(b) Not Applicable

(c) Not Applicable

(d) Not Applicable

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

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- (1) Not Applicable
- (2) Not Applicable
- (3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;
- (4) Not Applicable
- (5) Not Applicable
- (6) Not Applicable
- (7) Not Applicable
- (8) Not Applicable
- (9) Not Applicable and
- (10) Not Applicable
- (f) Not Applicable
- (g) Not Applicable
- (h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.
- (i) Not Applicable
- (j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

- (a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.
- (b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.6645.
- (d) Not Applicable
- (e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:
 - (1) The compliance demonstration must consist of at least three test runs.
 - (2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

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(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart.

Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration. (6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.

Continuous Compliance Requirements

63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

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- (4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.
- (5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.
- (6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.
- (7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.
- (d) Not Applicable
- (e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, **an existing 4SLB stationary RICE**, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.
- (f) Not Applicable

Notifications, Reports, and Records**63.6645 What notifications must I submit and when?**

- (a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;
- (1) Not Applicable
- (2) An existing stationary RICE located at an area source of HAP emissions.
- (3) Not Applicable
- (4) Not Applicable
- (5) Not Applicable
- (b) Not Applicable
- (c) Not Applicable
- (d) Not Applicable
- (e) Not Applicable
- (f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with § 63.6590(b), your notification should include the information in § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

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(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in § 63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to § 63.10(d)(2).

(i) Not Applicable

63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in § 63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

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- (3) Date of report and beginning and ending dates of the reporting period.
 - (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.6605(b), including actions taken to correct a malfunction.
 - (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
 - (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
- (d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.
- (1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
 - (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (e) Not Applicable
- (f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
- (g) Not Applicable
- (h) Not Applicable.

63.6655 What records must I keep?

- (a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.
- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in § 63.10(b)(2)(xiv).
 - (2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
 - (3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).
 - (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
 - (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (b) Not Applicable.
- (c) Not Applicable

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- (d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
- (e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
- (1) Not Applicable
 - (2) Not Applicable
 - (3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
- (f) Not Applicable

63.6660 In what form and how long must I keep my records?

- (a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).
- (b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

Other Requirements and Information**63.6665 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**63.6675 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101–549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless of whether or not such failure is permitted by this subpart.
- (4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO₂.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO₂.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in §63.2, except that:

- (1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;
- (2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;
- (3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and
- (4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_x) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_x, CO, and volatile organic compounds (VOC) into CO₂, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

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Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8 .

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_x (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart P of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

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Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**Table 1 a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE > 500 HP Located at a Major Source of HAP Emissions**

Not Applicable

Table 1 b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

Not Applicable

Table 2 a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE \geq 250 HP Located at a Major Source of HAP Emissions

Not Applicable

Table 2 b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE \geq 250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP

Not Applicable

Table 2c To Subpart Zzzz Of Part 63—Requirements For Existing Compression Ignition Stationary Rice Located At A Major Source Of Hap Emissions And Existing Spark Ignition Stationary Rice \leq 500 Hp Located At A Major Source Of Hap Emissions

Not Applicable

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Table 2d To Subpart Zzzz Of Part 63—Requirements For Existing Stationary Rice Located At Area Sources Of HAP Emissions

For each .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	

TABLE 3 TO SUBPART ZZZZ OF PART 63—SUBSEQUENT PERFORMANCE TESTS

Not Applicable

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
4SLB	a. reduce CO emissions	i. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (Reapproved 2005).a c	(a) Measurements to determine O ₂ must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device,	(1) ASTM D6522-00 (Reapproved 2005) a b cor Method 10 of 40 CFR part 60 Appendix A	(a) The CO concentration must be at 15 percent O ₂ , dry basis.

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements**

For each ...	Complying with the requirement to . . .	You have demonstrated in compliance if . . .
Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in § 63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O ₂ ;

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous by . . .
Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	<p>i. Conducting annual compliance demonstrations as specified in show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O₂; and either.</p> <p>ii. Collecting the catalyst inlet temperature data according to § 63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or</p> <p>iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.</p>

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS**Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports**

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report ...
Existing non-emergency, non- black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in § 63.6650(b)(1)- (5).

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ..

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	

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General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes.	
§63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
	Except that §63.8(e) only applies as specified in §63.6645.		
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.

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General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
	Except that §63.9(b) only applies as specified in §63.6645.		
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
	Except that §63.9(g) only applies as specified in §63.6645.		
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

General provisions citation	Subject of citation	Applies to subpart	Explanation
			VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

List of Appendices

APPENDIX	DESCRIPTION
A	General Permit Conditions
B	Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 02/05/97)
C	Test Procedures
D	Emissions Factors for NOx and CO at Various Loads During Testing of FT4000 Gas Turbines

APPENDIX A
GENERAL PERMIT CONDITIONS

- G.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.
- G.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 or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.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.
- G.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.
- G.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.
- G.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.
- G.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.

- G.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:

APPENDIX A
GENERAL PERMIT CONDITIONS

- (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.

G.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.

G.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.

G.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.

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

G.13 This permit also constitutes:

- (a) Determination of Best Available Control Technology, (BACT does not apply)
- (b) Determination of Prevention of Significant Deterioration; (PSD does not apply) and
- (c) Compliance with New Source Performance Standards (NSPS does not apply).

G.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:

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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.

G.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.

APPENDIX B.
Abbreviations, Acronyms, Citations, and Identification Numbers
(Version dated 02/05/97)

Abbreviations and Acronyms:

°F: Degrees Fahrenheit

BACT: Best Available Control Technology

CFR: Code of Federal Regulations

DEP: State of Florida, Department of Environmental Protection

DARM: Division of Air Resource Management

EPA: United States Environmental Protection Agency

F.A.C.: Florida Administrative Code

F.S.: Florida Statute

ISO: International Standards Organization

LAT: Latitude

LONG: Longitude

MMBtu: million British thermal units

MW: Megawatt

ORIS: Office of Regulatory Information Systems

SOA: Specific Operating Agreement

UTM: Universal Transverse Mercator

Citations:

The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers, and ID numbers.

Code of Federal Regulations:

Example: **[40 CFR 60.334]**

Where:	40	reference to	Title 40
	CFR	reference to	Code of Federal Regulations
	60	reference to	Part 60
	60.334	reference to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

Example: **[Rule 62-213, F.A.C.]**

Where:	62	reference to	Title 62
	62-213	reference to	Chapter 62-213
	62-213.205	reference to	Rule 62-213.205, F.A.C.

ISO: International Standards Organization refers to those conditions at 288 degrees K, 60 percent relative humidity, and 101.3 kilopascals pressure.

APPENDIX B.
Abbreviations, Acronyms, Citations, and Identification Numbers
(Version dated 02/05/97)

Identification Numbers:

Facility Identification (ID) Number:

Example: Facility ID No.: 1050221

Where:

105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by state database.

Permit Numbers:

Example: 1050221-002-AV, or
1050221-001-AC

Where:

AC = Air Construction Permit
AV = Air Operation Permit (Title V Source)
105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by permit tracking database
001 or 002 = 3-digit sequential project number assigned by permit tracking database

Example: PSD-FL-185
PA95-01
AC53-208321

Where:

PSD = Prevention of Significant Deterioration Permit
PA = Power Plant Siting Act Permit
AC = Old Air Construction Permit numbering

APPENDIX C.
Test Procedures

This section addresses the common conditions for the following emissions units as noted within each emissions unit(s) section.

- C.1 Test Methods: All emissions tests performed pursuant to this permit shall comply with the following EPA and/or DEP Methods as described in Rule 62-297.401, F.A.C. and 40 CFR 60 Appendix A: **[Rule 62-297.401, F.A.C.]**
- (a) *EPA Method 1*, Sampling and Velocity Traverses for Stationary Sources **[Rule 62-297.401(1)(a), F.A.C.]**;
 - (b) *EPA Method 2*, Determination of Stack Gas Velocity and Volumetric Flow Rate **[Rule 62-297.401(2), F.A.C.]**;
 - (c) *EPA Method 3*, Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight **[Rule 62-297.401(3), F.A.C.]**;
 - (d) *EPA Method 3A*, Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure) **[Rule 62-297.401(3)(a), F.A.C.]**;
 - (e) *EPA Method 4*, Determination of Moisture Content in Stack Gases **[Rule 62-297.401(4), F.A.C.]**;
 - (f) *EPA Method 7*, Determination of Nitrogen Oxide Emissions from Stationary Sources **[Rule 62-297.401(7), F.A.C.]**;
 - (g) *EPA Method 7E*, Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure) **[Rule 62-297.401(7)(e), F.A.C.]**;
 - (h) *EPA Method 9*, Visual Determination of the Opacity of Emissions from Stationary Sources **[Rule 62-297.401(9)(a), F.A.C.]**;
- C.2 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.]**
- C.3 Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. 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 62-297.301(2), F.A.C.]**
- C.4 Permitted Capacity: Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. **[Rule 62-297.310(2)(b), F.A.C.]**
- C.5 Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. **[Rule 62-297.310(3), F.A.C.]**
- C.6 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. **[Rule 62-297.310(4)(a)1, F.A.C.]**
- C.7 Opacity Compliance Tests: When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for

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Test Procedures

emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- (a) For batch, cyclical processes, or other operations, which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
- (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard. **[Rule 62-297.310(4)(a)2, F.A.C.]**

C.8 Minimum Sample Volume: Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet. **[Rule 62-297.310(4)(b), F.A.C.]**

C.9 Required Flow Rate Range: For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained. **[Rule 62-297.310(4)(c), F.A.C.]**

C.10 Allowed Modification to EPA Method 5: When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. **[Rule 62-297.310(4)(e), F.A.C.]**

C.11 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. **[Rule 62-297.310(5)(a), F.A.C.]**

C.12 Calibration of Sampling Equipment: Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1. **[Rule 62-297.310(4)(d), F.A.C.]**

Table 297.310-1 Calibration Schedule			
Item	Minimum Calibration Frequency	Reference Instrument	Tolerance
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. Thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale

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Table 297.310-1 Calibration Schedule			
Item	Minimum Calibration Frequency	Reference Instrument	Tolerance
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded Max. deviation between readings	Micrometer	+/-0.001" mean of at least three readings .004"
Dry Gas Meter and Orifice Meter	Full Scale: When received, When 5% change observed, Annually 1. One Point: Semiannually 2. Check after each test series	Spirometer or calibrated wet test or dry gas test meter	2%
		Comparison check	5%

C.13 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)(b), F.A.C.]

C.14 Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

- (a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
- (b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.
- (c) Sampling Ports.
 1. All sampling ports shall have a minimum inside diameter of 3 inches.
 2. The ports shall be capable of being sealed when not in use.
 3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.

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4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
 5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
- (d) Work Platforms.
1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
 2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
 3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
 4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.
- (e) Access to Work Platform.
1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
 2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.
- (f) Electrical Power.
1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
 2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.
- (g) Sampling Equipment Support.
1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
 - a. The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
 - b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
 - c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120
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inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.
3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

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

C.15 Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - a. Did not operate; or
 - b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,
4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions, if there is an applicable standard;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
 - c. Each NESHAP pollutant, if there is an applicable emission standard.
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.

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7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing. **[Rule 62-297.310(7), F.A.C.]**

C.16 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 a special compliance test. The special compliance test shall be conducted within 15 days of operation of the E.U. outside the design criteria of the AQCS (air quality control system). The special compliance test shall be conducted to document compliance with the emission limitations and to establish a normal range of operation. **[Rule 62-297.310(7)(b), F.A.C.]**

C.17 Waiver of Compliance Test Requirements: If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. **[Rule 62-297.310(7)(c), F.A.C.]**

C.18 Compliance Test Notification: The permittee shall notify the Compliance Authority fifteen (15) days prior to Emission Unit (E.U.) testing. **[Rule 62-297.310(7)(a)(9), F.A.C.]**

C.19 Compliance Test Submittal: Copies of the test report(s) shall be submitted to the Permitting Authority and the Compliance Authority within forty-five (45) days of completion of testing. **[Rule 62-297.310(8)(b), F.A.C.]**

C.20 Test Reports: 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: **[Rule 62-297.310(8)(c), F.A.C.]**

- (a) The type, location, and designation of the emissions unit tested.
- (b) The facility at which the emissions unit is located.

APPENDIX C.
Test Procedures

- (c) The owner or operator of the emissions unit.
 - (d) 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.
 - (e) 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.
 - (f) 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.
 - (g) 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.
 - (h) The date, starting time, and duration of each sampling run.
 - (i) 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.
 - (j) The number of points sampled and configuration and location of the sampling plane.
 - (k) 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.
 - (l) The type, manufacturer, and configuration of the sampling equipment used.
 - (m) Data related to the required calibration of the test equipment.
 - (n) Data on the identification, processing, and weights of all filters used.
 - (o) Data on the types and amounts of any chemical solutions used.
 - (p) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 - (q) The names of individuals, who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 - (r) All measured and calculated data required to be determined by each applicable test procedure for each run.
 - (s) The detailed calculations for one run that relate the collected data to the calculated emission rate.
 - (t) The applicable emission standard, the resulting maximum allowable emission rate for the emissions unit, plus the test results in the same form and unit of measure.
 - (u) 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.
- C.21 **Recordkeeping:** The permittee shall ensure that all records of monitoring information shall specify the date, place, and time of sampling or measurement and the operating conditions at the time of sampling or measurement, the date(s) analyses were performed, the company or entity that performed the analyses, the analytical techniques or methods used, and the results of such analyses. **[Rule 62-213.440(1)(b)2.a., F.A.C.]**
- C.22 **Record Retention:** The permittee shall retain records of all monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. **[Rule 62-213.440(1)(b)2.b., F.A.C.]**
- C.23 **Alternate Sampling Procedure:** The owner or operator of any emissions unit subject to the provisions of this chapter may request in writing a determination by the Secretary or his/her designee that any requirement of this chapter (except for any continuous monitoring requirements) relating to emissions test procedures, methodology, equipment, or test facilities shall not apply to such emissions unit and shall request approval of an alternate procedures or requirements. The request shall set forth the following information, at a minimum:
- (a) Specific emissions unit and permit number, if any, for which exception is requested.
-

**APPENDIX C.
Test Procedures**

- (b) The specific provision(s) of this chapter from which an exception is sought.
- (c) The basis for the exception, including but not limited to any hardship which would result from compliance with the provisions of this chapter.
- (d) The alternate procedure(s) or requirement(s) for which approval is sought and a demonstration that such alternate procedure(s) or requirement(s) shall be adequate to demonstrate compliance with applicable emission limiting standards contained in the rules of the Department or any permit issued pursuant to those rules.

The Secretary or his/her designee shall specify by order each alternate procedure or requirement approved for an individual emissions unit source in accordance with this section or shall issue an order denying the request for such approval. The Department's order shall be final agency action, reviewable in accordance with Section 120.57, Florida Statutes. **[Rule 62-297.620, F.A.C.]**

APPENDIX D
EMISSIONS FACTORS FOR NO_x and CO AT VARIOUS LOADS
DURING TESTING OF FT4000 GAS TURBINES

Table 1b**FT4000 Testing and Emissions Factors for NO_x and CO at various loads**

		Heat Input	Carbon Monoxide Emissions	Nitrogen Oxides Emissions
FT4000 Test Condition	Load	(MMBtu/hr)	(lb/hr)	(lb/hr)
Base load, wet injection	100	638.9	98	51
75 percent power, wet injection	75	450.5	135	36
50 percent power, wet injection	50	297.9	136	24
25 percent power, wet injection	25	161.2	89	13
Base load, dry	100	559.9	12	316
75 percent power, dry	75	401.6	10	160
50 percent power, dry	50	326.8	11	85
25 percent power, dry	25	147.2	12	40
Idle, dry	0	53.8	9	7

**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

Draft Construction Air Permit No. 0990021-032-AC

United Technology Corporation
17900 Beeline Highway (SR-710)
Jupiter, FL 33478

Palm Beach County, Florida

Permitting & Compliance Authority:

Department of Health Palm Beach County
Division of Environmental Public Health
Air & Waste Section
800 Clematis Street
West Palm Beach, FL 33402-0029

1.0 APPLICATION INFORMATION

1.1 Applicant Name and Address

Michael O'Neill, Manager
Assembly, Instrumentation, & Test Operations (CT & FL)
Systems Engineering & Validation
United Technologies Corporation
17900 Beeline Highway (SR-710)
Jupiter, FL 33478

1.2 Application Review

02/15/2013: Health Department received the permit application
4/5/2013: Additional Information submitted by the permittee

2.0 FACILITY INFORMATION

2.1 Project Location: 17900 Beeline Highway (SR 710), Jupiter, FL 33478

UTM Coordinates: Zone 17; 564.9 km E; 2977.3 km N
Latitude: 26° 54' 59" North / Longitude: 80° 20' 47" West

2.2 Standard Industrial Classification Code (SIC # 3724)

Major Group Number	37	<i>Transportation Equipment</i>
Group Number	372	<i>Aircraft and Parts</i>
Industry Number	3724	<i>Aircraft Engines and Engine parts</i>

2.3 Facility Category

Based on the specific conditions in the draft permit and the physical restrictions of the equipment, this facility is classified as a Title V source for criteria pollutants and synthetic minor source for hazardous air pollutants (HAPs).

3.0 PROJECT DESCRIPTION

Following is the list of emission units operate at this facility.

EU No.	Brief Description
001	Air compressors/heater (ACHR-2-B2) <i>[This EU is no longer in operation and is removed per Applicant's request]</i>
009	Diesel storage tanks
010	Jet fuel storage tanks
012	Jet fuel storage tank (F-8-CFF)
014	Paint spray booth (PS-1-TMC) used for refinishing support equipment
015	Closed-loop flush cleaning (BF-1-RL-10) using Vertrel MCA
016	Boiler (BO-12-E6) fired by natural gas – 42 MMBTU/hr Heat Input
018	Acid gas scrubbing system (AS-2-MPL) for plating operations
021	Alkali scrubbing system (AS-15-MPL) controls nickel and silver plating lines <i>[This EU is no longer in operation and is removed per Applicant's request]</i>
022	Boilers (BO-1-MBH, BO-2-MBH) fired by natural gas – 54 MMBTU/hr Heat Input per Boiler

EU No.	Brief Description
031	Diesel storage tanks (DL-19-SEGF and DL-20-SEGF)
037	AST Gasoline storage tanks
040	Heat treatment furnaces (FU-3-MHT and FU-4-MHT) fired by natural gas
045	Water evaporator (EV-1-MW)
049	Plasma spray booths (MODIFIED)
053	Woodshop dust collector (DC-1-MM) [This EU is no longer in operation and is removed from the permit per Applicant's request]
059	Air and fuel heaters fired with natural gas
063	Woodshop dust collector (DC-1-RTF) [This EU is no longer in operation and is removed from the permit per Applicant's request]
064	Paint spray booth (PSB-1-RTF)
065	Diesel engines powering fire protection pumps and cooling water pumps during rocket engine testing
066	Boiler (BO-14-E8) fired by propane subject – 6.7 MMBTU/Hr Heat Input
068	Emergency electrical generating facility
069	JP-8 Fueled Jet engine test stands – Test Area A/C
070	Aerospace hand-wiping operations
071	Aerospace spray gun cleaning operations
072	Aerospace flush cleaning operations
073	Aerospace primer and topcoat application operations
074	Aerospace waste storage and handling operations
075	LOX/Kerosene rocket engine test stand [This EU was never constructed and is removed from the permit per Applicant's request]
076	Kerosene Fuel Storage Tank [This EU is no longer in operation and is removed from the permit per Applicant's request]
077	Combustion turbine test stands – Fired by Natural Gas
078	Vertrel Vapor Degreaser
079	Two JP8 fired Turbine Engines
080	E-8 Rocket Engine Test Stand
085	Miscellaneous VOC/HAP Emission Sources - Facility Wide
086	FIT - Fire Innovation and Test (FIT) Center
087	810 KW DIESEL Generator (Insignificant)
088	Jet Engines Coating Process (NEW)
089	Hot Acoustic Rig (HAR) at B-6 Test Stand (NEW)
Following emission units are located at Sikorsky Aircraft Corporation	
na	Inactive (EU 001 of Sikorsky permit – 0990185-004-AF)
na	Inactive (EU 002 of Sikorsky permit – 0990185-004-AF)
na	Inactive (transferred to ARMS EU No. 0990021-063)
na	Inactive (transferred to ARMS EU No. 0990021-064)
na	Inactive (spray booth PS-15-SIK has been removed) (EU 007 of Sikorsky permit – 0990185-004-AF)
081	SIK - Spray Booth (PS-14-SIK) [Previously EU 006 in Sikorsky permit]
082	SIK - Spray Booth (PS-16-SIK) [Previously EU 008 in Sikorsky permit]
na	Spray Booth (PS-13-SIK) (EU 010 of Sikorsky permit – 0990185-004-AF) Unit is removed
083	SIK - Boiler (BO-4-SIK) [Previously EU 009 in Sikorsky permit]
na	Dust Collector (DC-3-SIK) (EU 005 of Sikorsky permit – 0990185-004-AF) Unit is Removed
084	SIK – Alodine Tank (10 Gal)

On November 14, 2012, United Technologies Corporation, applied to the Department of Health Palm Beach County.

The purpose of this construction permit is to modify the existing A-4 test stand to accommodate the development and testing program for Pratt & Whitney's FT4000 gas turbine engines. The modification includes the installation of a compressor reciprocating internal combustion engine (RICE) to boost the incoming natural gas supply to the desire pressure needed for testing and development of the FT4000 engines. The proposed RICE engine is manufactured by Caterpillar and is run with natural gas.

This new configuration will add a system to mount the engines at ground level (instead of suspended from elevation mount as currently configured) for testing the FT4000 engines. The FT4000 engine series will be manufactured for stationary use.

Since this RICE is manufactured in 2004, it is not subject to the regulations of 40 CFR 60 Subpart JJJJ "New Source Performance Standards for Spark Ignition (SI) Engines." This RICE is subject to the regulations of 40 CFR 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for RICE." According to Subpart ZZZZ, this engine is classified as "spark ignition non-emergency four stroke lean burn (4SLB) engine."

The sources of air emissions are the RICE engine and the testing of turbines. The potential air emissions of NO_x, CO, PM₁₀, and SO₂ from this project are 36.98 tons per year (TPY), 27.66 tpy, 1.13 tpy, and 0.57 tpy respectively.

Based on the permit application, this facility is **not** a major source of hazardous air pollutants (HAPs).

4.0 RULE APPLICABILITY

The proposed project is subject to preconstruction review under the applicable provisions of Chapter 403, Florida Statutes, and Chapters 62-209 through 62-297 of the Florida Administrative Code (F.A.C.). This facility is located in Palm Beach County; an area designated as "maintenance" for the pollutant ozone and attainment for all other criteria pollutants in accordance with the chapter 62-204 F.A.C.

The potential emissions from this project are limited to be below PSD significant emission increases. A significant emission increase threshold for CO, NO_x, PM₁₀ is 100 tons per year (TPY), 40 tpy and 100 tpy respectively.

The test stand A-4 is currently permitted under EU 069 in permit number 0990021-013-AV, and is classified as an unregulated emission unit since the unit has been operating prior to the PSD baseline date. This test stand is allowed to burn only jet fuel.

This project is subject to the following regulations.

Chapter 62-4, F.A.C	-	Permits.
Rule 62-4.160, F.A.C.	-	General Permit Conditions
Chapter 62-204, F.A.C.	-	Air Pollution Control - General Provisions
Rule 62-204.800, F.A.C.	-	40 CFR 63 Subpart ZZZZ
Chapter 62-210, F.A.C.	-	Stationary Sources – General Requirements
Rule 62-210.300, F.A.C.	-	Permits Required.
Rule 62-210.350, F.A.C.	-	Public Notice and Comment.
Rule 62-210.370, F.A.C.	-	Reports.
Rule 62-210.650, F.A.C.	-	Circumvention.
Rule 62-210.700, F.A.C.	-	Excess Emissions.

Rule 62-210.900, F.A.C.	-	Forms and Instructions.
Chapter 62-212, F.A.C.	-	Stationary Sources – Preconstruction Review
Rule 62-212.300, F.A.C.	-	General Preconstruction
Chapter 62-296, F.A.C.	-	Stationary Sources – Emission Standards
Rule 62-296.310, F.A.C.	-	General Particulate Emission Limiting Standards.
Rule 62-296.320, F.A.C.	-	General Pollutant Emission Limiting Standards.
Chapter 62-297, F.A.C.	-	Stationary Sources - Emissions Monitoring
Rule 62-297.310, F.A.C.	-	General Test Requirements.
Rule 62.297-400, F.A.C.	-	EPA Test Methods Adopted by Reference

Calculation of Potential to Emit (PTE)

Air Emissions are estimated from testing the FT4000 engines and the RICE engine and are presented in the following tables.

Since this RICE is manufactured in 2004, it is not subject to the regulations of 40 CFR 60 Subpart JJJ “New Source Performance Standards for Spark Ignition (SI) Engines.” This RICE is subject to the regulations of 40 CFR 63 Subpart ZZZZ “National Emissions Standards for Hazardous Air Pollutants for RICE.” According to Subpart ZZZZ, this engine is classified as “spark ignition non-emergency four stroke lean burn (4SLB) engine.”

The permittee restricted the hours of operation for testing the FT 4000 engines and RICE engine to 904 and 1130 hours per year respectively, in order to limit the potential emissions from the project to be below the PSD Significant Emissions Increases.

The heat input rate of the FT4000 engine is 653.3 mmbtu/hr. Emissions of CO and NOx from testing the FT4000 engines are dependant on the load, and the permit restricts the testing of the engines at various loads as specified below in the table. The emission factors at different loads were obtained using the emissions testing performed by the applicant at a different site. Other pollutants were estimated using the emissions factors from AP-42 , Chapter 3-1, Stationary Gas Turbines.

The capacity of the RICE engine is 637 hp. The emissions of CO, NOx, and VOCs from the RICE engine were estimated using the manufacturer’s specifications. Other pollutants were estimated using the emissions factors from AP-42, Chapter 3.2, Natural Gas Fired Reciprocating Engines.

Operating parameters of FT4000 Engine testing and RICE

	FT4000	RICE
Capacity	653.3 mmbtu/hr	600 HP; 8932 Btu/bhp-hr 4.44 MMbtu/hr
Fuel Consumption (MMcf/hr)	0.644 ¹	0.0056 ²
Operating Hours / Year	904	1130
Fuel Consumption (MMcf/yr)	327.5 ³	6.33 ⁴

¹ (653.3 mmbtu/hr) x (MMCF/1015 mmbtu) = 0.644 MMCF/hr (Maximum heat input to the turbine is used)

² (8932 Btu/bhp-hr) x (637 hp) x (MMcf/1015 MMBTU) = 0.0056 MMcf/hr

³ (367.7 mmbtu/hr) x ((MMcf/1015 MMbtu) x (904 hrs/yr) = 327.5 MMcf/yr (Average heat input to the turbine is used)

⁴ (0.0056 MMcf/hr) x (1130 hr/yr) = 6.33 MMcf/yr

Table 1a

FT4000 Development - Heat Input Estimates

Total Hours

174

FT4000 Test Condition	Percentage of Total Hours	hr/yr	Heat Input (MMBtu/hr)	Annual Heat Input (MMBtu/yr)
Base load, wet injection	20%	34.8	638.9	22,233.72
75 percent power, wet injection	10%	17.4	450.5	7,838.70
50 percent power, wet injection	10%	17.4	297.9	5,183.46
25 percent power, wet injection	10%	17.4	161.2	2,804.88
Base load, dry	10%	17.4	559.9	9,742.26
75 percent power, dry	10%	17.4	401.6	6,987.84
50 percent power, dry	10%	17.4	326.8	5,686.32
25 percent power, dry	10%	17.4	147.2	2,561.28
Idle, dry	10%	17.4	53.8	936.12
TOTAL	100%	174 --	--	
AVERAGE	--	--	--	367.7

Table 1b

FT4000 Testing and Development Estimates

CO and NOx Hourly and Annual Air Emissions Estimates, FT4000 Jet Engine

FT4000 Test Condition	Load	Percentage of Total Hours (%)	hr/yr	Carbon Monoxide Emissions		Nitrogen Oxides Emissions	
				(lb/hr)	(TPY)	(lb/hr)	(TPY)
Base load, wet injection	100	20	180.8	98	8.86	51	4.61
75 percent power, wet injection	75	10	90.4	135	6.10	36	1.63
50 percent power, wet injection	50	10	90.4	136	6.15	24	1.08
25 percent power, wet injection	25	10	90.4	89	4.02	13	0.59
Base load, dry	100	10	90.4	12	0.54	316	14.28
75 percent power, dry	75	10	90.4	10	0.45	160	7.23
50 percent power, dry	50	10	90.4	11	0.50	85	3.84
25 percent power, dry	25	10	90.4	12	0.54	40	1.81
Idle, dry	0	10	90.4	9	0.41	7	0.32
TOTAL		100	904	--	27.57	--	35.39

Table 1c

FT4000 Testing and Development

Hourly and Annual Air Emissions Estimates -- FT4000 Jet Engine Testing

Pollutant	Emission Factor (lb/MMBtu)	Avg Heat Input (MMBtu/hr)	Max Heat Input (MMBtu/hr)	Emissions Estimates (lb/hr)	Emission Estimates (tons/yr)
Carbon Monoxide	see Table 1a	NA	NA	136	27.57
Nitrogen Oxides	See Table 1a	NA	NA	316	35.39
Sulfur Dioxide	3.40E-03	367.7	653.3	2.221	0.57
Volatile Organic Compounds	2.10E-03	367.7	653.3	1.372	0.35
Particulate Matter (condensable)	4.70E-03	367.7	653.3	3.071	0.78
Particulate Matter (filterable)	1.90E-03	367.7	653.3	1.241	0.32
Particulate Matter (total)	6.60E-03	367.7	653.3	4.312	1.10
1,3-Butadiene	4.30E-07	367.7	653.3	0.000	7.15E-05
Acetaldehyde	4.00E-05	367.7	653.3	0.026	6.65E-03
Acrolein	6.40E-06	367.7	653.3	0.004	1.06E-03
Benzene	1.20E-05	367.7	653.3	0.008	1.99E-03
Ethylbenzene	3.20E-05	367.7	653.3	0.021	5.32E-03
Formaldehyde	7.10E-04	367.7	653.3	0.464	1.18E-01
Naphthalene	1.30E-06	367.7	653.3	0.001	2.16E-04
PAH	2.20E-06	367.7	653.3	0.001	3.66E-04
Propylene Oxide	2.90E-05	367.7	653.3	0.019	4.82E-03
Toluene	1.30E-04	367.7	653.3	0.085	2.16E-02
Xylenes	6.40E-05	367.7	653.3	0.042	1.06E-02
Total HAPs	NA	NA	NA	NA	1.71E-01
Carbon Dioxide	110	367.7	653.3	71863.000	18,280.55
Nitrous Oxide	3.00E-03	367.7	653.3	1.960	0.50
Methane	8.60E-03	367.7	653.3	5.618	1.43
GHG	NA	NA	NA	NA	18,465.12

Note 1: CO and NOx emissions are based on the testing and development data for the FT4000 engines.

Note 2: All other emission factors are based on the maximum and average heat inputs and EPA's AP-42, Chapter 3.2, Natural Gas-fired Reciprocating Engines . Hourly emission rates based on the maximum heat input, annual emission rates based on the average heat input.

Note 3: GHG emissions calculations are based on the following equation:

$$\text{GHG emissions} = \text{CO}_2 \text{ emissions} + (\text{CH}_4 \text{ emissions} \times 21) + (\text{N}_2\text{O emissions} \times 310)$$

Number of hours of operation = 904 hrs/yr

Table 2
FT4000 Testing and Development Project
Specifications and Emission Factors -- Reciprocating Engine (RICE)
Caterpillar Engine Model G3412C

Parameter	Power (bhp)	637	478	318
	Units	100%	75%	50%
I. Specifications from Caterpillar				
Fuel usage	Btu/bhp-hr	8,932	9,165	9,710
NOX	g/bhp-hr	2	2	2
CO	g/bhp-hr	2.32	2.42	2.52
VOC	g/bhp-hr	0.48	0.54	0.63
Formaldehyde	g/bhp-hr	0.27	0.28	0.3
CO2	g/bhp-hr	525	534	559
II. Unit conversions				
Fuel usage	MMBtu/hr	5.69	4.38	3.09
NOX	lb/hr	2.81	2.11	1.40
CO ¹	lb/hr	0.163	0.170	0.177
VOC	lb/hr	0.673	0.569	0.441
Formaldehyde	lb/hr	0.379	0.295	0.210
CO2	lb/hr	736.62	562.23	391.55

¹ Control efficiency for CO with catalyst 95%

Table 3

FT4000 Testing and Development Project
Hourly and Annual Air Emissions Estimates -- RICE

Hours of operation (hrs/yr) 1130 25% more hours than FT4000 testing ($1.25 * 904 = 1130$ hrs /hr)

Pollutant	Natural Gas-fired RICE			
	Emission Factor	Activity	Emissions Estimates	
	(lb/MMBtu)	(MMBtu/hr)	(lb/hr)	(TPY)
Carbon Monoxide	Note 1	5.69	0.16	0.092
Nitrogen Oxides	Note 1	5.69	2.81	1.585
Sulfur Dioxide	5.88E-04	5.69	3.35E-03	1.89E-03
Volatile Organic Compounds	Note 1	5.69	6.73E-01	3.81E-01
Particulate Matter (condensable)	9.91E-03	5.69	5.64E-02	3.19E-02
PM10 (filterable)	7.71E-05	5.69	4.39E-04	2.48E-04
PM2.5 (filterable)	7.71E-05	5.69	4.39E-04	2.48E-04
Total PM	NA	5.69	5.68E-02	3.21E-02
1,1,2,2-Tetrachloroethane	4.00E-05	5.69	2.28E-04	1.29E-04
1,1,2-Trichloroethane	3.18E-05	5.69	1.81E-04	1.02E-04
1,3-Butadiene	2.64E-04	5.69	1.50E-03	8.49E-04
1,3-Dichloropropene	2.64E-05	5.69	1.50E-04	8.49E-05
2-Methylnaphthalene	3.32E-05	5.69	1.89E-04	1.07E-04
2,2,4-Trimethylpentane	2.50E-04	5.69	1.42E-03	8.04E-04
Acenaphthene	1.25E-06	5.69	7.11E-06	4.02E-06
Acenaphthylene	5.53E-06	5.69	3.15E-05	1.78E-05
Acetaldehyde	8.36E-03	5.69	4.76E-02	2.69E-02
Acrolein	5.14E-03	5.69	2.92E-02	1.65E-02
Benzene	4.40E-04	5.69	2.50E-03	1.41E-03
Benzo(b)fluoranthene	1.66E-07	5.69	9.44E-07	5.34E-07
Benzo(e)pyrene	4.15E-07	5.69	2.36E-06	1.33E-06
Benzo(g,h,i)perylene	4.14E-07	5.69	2.36E-06	1.33E-06
Biphenyl	2.12E-04	5.69	1.21E-03	6.82E-04
Carbon Tetrachloride	3.67E-05	5.69	2.09E-04	1.18E-04
Chlorobenzene	3.04E-05	5.69	1.73E-04	9.77E-05
Chloroform	2.85E-05	5.69	1.62E-04	9.16E-05
Chrysene	6.93E-07	5.69	3.94E-06	2.23E-06
Ethylbenzene	3.97E-05	5.69	2.26E-04	1.28E-04
Ethylene Dibromide	4.43E-05	5.69	2.52E-04	1.42E-04
Fluoranthene	1.11E-06	5.69	6.32E-06	3.57E-06
Fluorine	5.67E-06	5.69	3.23E-05	1.82E-05
Formaldehyde	Note 1	5.69	3.79E-01	2.14E-01
Methanol	2.50E-03	5.69	1.42E-02	8.04E-03
Methyl Chloride	2.00E-05	5.69	1.14E-04	6.43E-05
n-Hexane	1.11E-03	5.69	6.32E-03	3.57E-03
Naphthalene	7.44E-05	5.69	4.23E-04	2.39E-04
PAH	2.69E-05	5.69	1.53E-04	8.65E-05
Phenanthrene	1.04E-05	5.69	5.92E-05	3.34E-05
Phenol	2.40E-05	5.69	1.37E-04	7.72E-05
Pyrene	1.36E-06	5.69	7.74E-06	4.37E-06
Styrene	2.36E-05	5.69	1.34E-04	7.59E-05
Tetrachloroethane	2.48E-06	5.69	1.41E-05	7.97E-06

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Toluene	4.08E-04	5.69	2.32E-03	1.31E-03
Vinyl Chloride	1.49E-05	5.69	8.48E-05	4.79E-05
Xylenes	1.84E-04	5.69	1.05E-03	5.91E-04
Total HAPs	NA	5.69	NA	2.76E-01
Carbon Dioxide		5.69	736.6	416.190
Methane	1.25	5.69	7.1	4.018
GHG	NA	5.69	NA	500.57

Note 1: CO, NOx, formaldehyde and VOC emission rates based on manufacturer's specifications for a CAT natural gas-fueled RICE (Table 2)

All other emissions factors are based on AP 42, Chapter 3.2 - Natural Gas Fired Reciprocating Engines

GHG emissions calculations are based on the following equation:

GHG emissions = CO₂ emissions + (CH₄ emissions x 21) + (N₂O emissions x 310)

Table 4

FT4000 Testing and
Development

Hourly and Annual Air Emissions Estimates -- Summary of Emissions from Engine Testing & RICE

Pollutant	FT4000 (Table 1b)		RICE (Table 2)		Total		PSD Threshold (TPY)	PSD Applicable?
	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)		
Carbon Monoxide	136	27.57	0.16	0.09	136.16	27.66	100	NO
Nitrogen Oxides	316	35.39	2.81	1.59	318.81	36.98	40	NO
Sulfur Dioxide	2.221	0.565	3.35E-03	1.89E-03	2.22	0.57	40	NO
Volatile Organic Compounds	1.372	0.349	6.73E-01	3.81E-01	2.05	0.73	40	NO
Particulate Matter (condensable)	3.071	0.781	5.64E-02	3.19E-02	3.13	0.81	25	NO
PM10 (filterable)	1.241	0.316	4.39E-04	2.48E-04	1.24	0.32	15	NO
PM2.5 (filterable)	1.24	0.291	4.39E-04	2.48E-04	1.24	0.29	10	NO
Total PM	4.312	1.097	5.68E-02	3.21E-02	4.37	1.13		
1,1,2,2-Tetrachloroethane			2.28E-04	1.29E-04	2.28E-04	1.29E-04		
1,1,2-Trichloroethane			1.81E-04	1.02E-04	1.81E-04	1.02E-04		
1,3-Butadiene	2.81E-04	7.15E-05	1.50E-03	8.49E-04	1.78E-03	9.20E-04		
1,3-Dichloropropene			1.50E-04	8.49E-05	1.50E-04	8.49E-05		
2-Methylnaphthalene			1.89E-04	1.07E-04	1.89E-04	1.07E-04		
2,2,4-Trimethylpentane			1.42E-03	8.04E-04	1.42E-03	8.04E-04		
Acenaphthene			7.11E-06	4.02E-06	7.11E-06	4.02E-06		
Acenaphthylene			3.15E-05	1.78E-05	3.15E-05	1.78E-05		
Acetaldehyde	2.61E-02	6.65E-03	4.76E-02	2.69E-02	7.37E-02	3.35E-02		
Acrolein	4.18E-03	1.06E-03	2.92E-02	1.65E-02	3.34E-02	1.76E-02		
Benzene	7.84E-03	1.99E-03	2.50E-03	1.41E-03	1.03E-02	3.41E-03		
Benzo(b)fluoranthene			9.44E-07	5.34E-07				
Benzo(e)pyrene			2.36E-06	1.33E-06	2.36E-06	1.33E-06		
Benzo(g,h,i)perylene			2.36E-06	1.33E-06	2.36E-06	1.33E-06		
Biphenyl			1.21E-03	6.82E-04	1.21E-03	6.82E-04		
Carbon Tetrachloride			2.09E-04	1.18E-04	2.09E-04	1.18E-04		
Chlorobenzene			1.73E-04	9.77E-05	1.73E-04	9.77E-05		
Chloroform			1.62E-04	9.16E-05	1.62E-04	9.16E-05		
Chrysene			3.94E-06	2.23E-06	3.94E-06	2.23E-06		
Ethylbenzene	0.021	5.318E-03	2.26E-04	1.28E-04	2.11E-02	5.45E-03		

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Ethylene Dibromide			2.52E-04	1.42E-04	2.52E-04	1.42E-04		
Fluoranthene			6.32E-06	3.57E-06	6.32E-06	3.57E-06		
Fluorine			3.23E-05	1.82E-05	3.23E-05	1.82E-05		
Formaldehyde	0.464	0.118	0.38	0.21	8.43E-01	3.32E-01		
Methanol			1.42E-02	8.04E-03	1.42E-02	8.04E-03		
Methyl Chloride			1.14E-04	6.43E-05	1.14E-04	6.43E-05		
n-Hexane			6.32E-03	3.57E-03	6.32E-03	3.57E-03		
Naphthalene	8.49E-04	2.16E-04	4.23E-04	2.39E-04	1.27E-03	4.55E-04		
PAH	1.44E-03	3.66E-04	1.53E-04	8.65E-05	1.59E-03	4.52E-04		
Phenanthrene			5.92E-05	3.34E-05	5.92E-05	3.34E-05		
Phenol			1.37E-04	7.72E-05	1.37E-04	7.72E-05		
Propylene Oxide	1.89E-02	4.82E-03			1.89E-02	4.82E-03		
Pyrene			7.74E-06	4.37E-06	7.74E-06	4.37E-06		
Styrene			1.34E-04	7.59E-05	1.34E-04	7.59E-05		
Tetrachloroethane			1.41E-05	7.97E-06	1.41E-05	7.97E-06		
Toluene	8.49E-02	2.16E-02	2.32E-03	1.31E-03	8.73E-02	2.29E-02		
Vinyl Chloride			8.48E-05	4.79E-05	8.48E-05	4.79E-05		
Xylenes	4.18E-02	1.06E-02	1.05E-03	5.91E-04	4.29E-02	1.12E-02		
Total HAPs		0.171	0.489	0.28	0.49	0.45		
Carbon Dioxide	71,863.00	18,280.55	737	416	72599.62	18696.74		
Nitrous Oxide	1.9599	0.499			1.96	0.50		
Methane	5.61838	1.429	7.1	4.0	12.73	5.45		
GHG		18,465.12	NA	500.6		18965.69		

5.0 SOURCE IMPACT ANALYSIS

The facility will maintain the records of monthly fuel consumption and the operating hours of the testing stand and the RICE , and will report the these parameters in the annual operating reports. Such record keeping is required to maintain the synthetic minor status for PSD pollutants. Facility will continue to keep records of the HAPs emissions in order to maintain the synthetic minor status for HAP/HAPs.

6.0 CONCLUSION

Based on the information provided by the applicant, the Health Department has a reasonable assurance that the proposed project, as described in this evaluation, and subject to the conditions in the proposed draft permit, will not cause or contribute to a violation of any air quality standard or any other technical provision of Chapter 62-4 through 62-297 of the Florida Administrative Code.