**INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**
**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**

**February 23, 2015**
**ELECTRONIC CORRESPONDENCE**
michael.oneill@pw.utc.com

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

Re: Intent to Issue / DRAFT Air Construction Permit No. 0990021-043-AC
**Project:** Construction of new Auxiliary Power Unit (APU) Testing Complex to test small jet fuel-fired turbine engines. The APU Testing Complex will be comprised of two new emission units (EU107 and EU108) at two separate locations. Existing emission units EU010 and EU085 are revised to incorporate new unregulated activities.

Dear Mr. O'Neill:

One copy of the Technical Evaluation and Preliminary Determination, the Public Notice, and the Draft Air Construction Permit for United Technologies Corporation, located 17900 Beeline Highway (SR 710), Jupiter, Palm Beach County, is enclosed. The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Jorge Patino, P.E., at the below letterhead address. If you have any other questions, please contact Mr. Patino at 561-837-5974.

Sincerely,

Timothy G. Mayer, RS, MPH, Director
Division of Environmental Public Health

Enclosures

In the Matter of an
Application for Permits by:

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

DRAFT Permit No.: 0990021-043-AC

Palm Beach County

**INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**

The Department of Health Palm Beach County (permitting authority) gives notice of its intent to issue an Air Construction Permit (copy of the DRAFT Air Construction Permit attached) for the Title V source detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

On December 31, 2014, the United Technologies Corporation (UTC) applied to the Department of Health Palm Beach County for an Air Construction Permit for the facility located at 17900 Beeline Highway (SR-710), Jupiter, FL 33478.

The purpose of this construction permit application is to construct a new Auxiliary Power Unit (APU) Testing Complex to test small jet fuel-fired turbine engines. Auxiliary Power Units are installed in jet airliners to provide electrical power without operating the main engines. The proposed APU Testing Complex will consist of two emission units (EU107 and EU108) used to run five programs: Military Development, OEM, TJ150, Overhaul and Repair, and Tail Cones at C-10.

EU107, located at existing C-10 Test Stand (currently part of EU069), will be used to run the Tail Cones at C-10 Program. EU107 will consist of four new aircraft tail cones used to mount APUs for testing. APU testing at EU107 will be controlled from the C-10 Control Room. EU108 will be used to run the Military Development, OEM, TJ150, Overhaul and Repair Programs and will be comprised of nine separate APU test cells housed within a proposed APU Testing Building (located south of the Engine Assembly Building). Three new, 10,000-gallon or smaller, jet fuel storage tanks (JP-8, JP-10, and Jet A fuel) will be installed adjacent to EU-108. Engine parts will be cleaned in the Engine Assembly Building using isopropyl alcohol (100 gallons per year) and hand wipes. The emissions associated with the new jet fuel storage tanks and parts cleaning are incorporated into existing, unregulated emission units EU-010 and EU-085, respectively.

Combustion of JP-8, JP-10, and Jet A fuels will be the primary source of potential emissions associated with EU0107 and EU0108. The total potential air emissions for NOx (31.42 tons per year (TPY)), CO (0.21 TPY), PM10 (0.72 TPY), SO2 (3.14 TPY), VOCs (0.44 TPY), and Total HAPs (0.11 TPY) were estimated using emission factors previously approved by the San Diego Air Pollution Control District in 2011 and limits set by the applicant on the number of annual operating hours and fuel burned by each program.

The Florida Department of Environmental Protection (FDEP) has permitting jurisdiction under the provisions of Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213 of the Florida Administrative Code (F.A.C.). However, in accordance with Section 403.182, F.S., 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, FDEP and the Health Department have entered into a Specific Operating Agreement that authorizes the Health Department to issue or deny permits for this type of air pollution source located in Palm Beach County. An Air Construction Permit is required to construct and to commence or continue operations at the described facility.

The permitting authority intends to issue the Air Construction Permit based on the belief that reasonable assurances have been provided to indicate that the construction activity and operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below.

The applicant shall provide proof of publication to the permitting authority's office at Air & Waste Section (4th Floor), Department of Health, Palm Beach County, 800 Clematis St., Post Office Box 29, West Palm Beach, Florida 33402-0029 (Telephone: (561) 837-5900; Fax: (561) 837-5295), within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

The permitting authority will issue the Air Construction Permit, in accordance with the conditions of the attached DRAFT Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Air Construction Permit, the permitting authority shall issue a Revised DRAFT Air Construction Permit and require, if applicable, another Public Notice.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this written notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this written notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. A petition for administrative hearing must contain the information set forth below and must be filed (received) with the Department of Health Palm Beach County Legal Office, located at 800 Clematis Street in West Palm Beach, Florida, 33402 (Telephone: (561) 671-4007, Fax (561) 837-5195), Barbara.Sullivan@flhealth.gov, before the deadline. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, any email address, telephone number and any facsimile number of the petitioner; the name, address, any email address, telephone number, and any facsimile number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this written notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation will not be available in this proceeding.

*Executed in West Palm Beach, Florida*
DEPARTMENT OF HEALTH PALM BEACH COUNTY

Timothy G. Mayer, RS, MPH, Director
Division of Environmental Public Health

## CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE and the Draft Air Construction Permit Package) and all copies were sent electronically (with Received Receipt) before the close of business on 02/23/2015 to the person(s) listed:

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

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT (including the combined PUBLIC NOTICE and the Draft Air Construction Permit Package) were sent electronically (with Received Receipt) on the same date to the person(s) listed:

| | | |
|---|---|---|
| Philip Cobb, Golder Associates | email | pcobb@golder.com |
| Dean Gee, UTC | email | Shau.Gee@pwr.utc.com |
| Diane Pupa<br>Southeast District Office, FDEP | email | Diane.Pupa@dep.state.fl.us |

**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.

Jorge R. Patino 02/23/2015

(Clerk) (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT**

**DEPARTMENT OF HEALTH PALM BEACH COUNTY**

DRAFT Air Construction Permit No.: 0990021-043-AC

United Technologies Corporation

Palm Beach County

The Department of Health Palm Beach County (permitting authority) gives notice of its intent to issue an Air Construction Permit for United Technologies Corporation, located on 17900 Beeline Highway, Jupiter in Palm Beach County, Florida. The applicant's name and address are; Michael O'Neill, Manager, Assembly, Instrumentation, & Test Operations, United Technologies Corporation, 17900 Beeline Highway (SR-710), Jupiter, FL 33478.

On December 31, 2014, the United Technologies Corporation (UTC) applied to the Department of Health Palm Beach County for an Air Construction Permit for the facility located at 17900 Beeline Highway (SR-710), Jupiter, FL 33478.

The purpose of this construction permit application is to construct a new Auxiliary Power Unit (APU) Testing Complex to test small gas turbine engines. Auxiliary Power Units are installed in jet airliners to provide electrical power without operating the main engines. The proposed APU Testing Complex will consist of two emission units (EU107 and EU108) used to run five programs: Military Development, OEM, TJ150, Overhaul and Repair, and Tail Cones at C-10.

EU107, located at EU069, will be used to run the Tail Cones at C-10 Program. EU107 will consist of four new aircraft tail cones used to mount APUs for testing. APU testing at EU107 will be controlled from the C-10 Control Room. EU108 will be used to run the Military Development, OEM, TJ150, Overhaul and Repair Programs using nine separate APU test cells housed within a newly constructed APU Testing Building (located south of the Engine Assembly Building).

Combustion of JP-8, JP-10, and Jet A fuels will be the primary source of potential emissions associated with EU0107 and EU0108. The combined potential air emissions generated by the five programs run at EU0107 and EU0108 were estimated as follows: NOx (31.42 tons per year (TPY)), CO (0.21 TPY), PM10 (0.72 TPY), SO2 (3.14 TPY), VOCs (0.44 TPY), and Total HAPs (0.11 TPY). These potential emissions were estimated using limits set by the applicant on the combined total number of annual operating hours (13,289 hours) and annual gallons of fuel burned (897,774 gallons) by all five programs.

The permitting authority will issue the Air Construction Permit in accordance with the conditions of the DRAFT Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice. Written comments should be provided to the permitting authority's office: Air & Waste Section (4th Floor), Department of Health Palm Beach County, 800 Clematis Street, Post Office Box 29, West Palm Beach, FL 33402-0029. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

**Petitions**: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition

within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. A petition for administrative hearing must contain the information set forth below and must be filed (received) with the permitting authority's Legal Office, Attention: Chief Legal Officer, located at 800 Clematis Street in West Palm Beach, Florida, 33402 (Telephone: (561) 671-4007, Fax (561) 837-5195, Barbara.Sullivan@flhealth.gov, before the deadline. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

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

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

Mediation is not available for this proceeding.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:
Department of Health Palm Beach County
800 Clematis Street
Air and Waste Section (4th Floor)
West Palm Beach, Fl 33401
Telephone: 561/837-5900
Fax: 561/837-5295

The complete project file includes the Technical Evaluation and Preliminary Determination and associated Draft Air Construction Permit, the application(s), and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Jorge Patino, P.E., at the above address, or call 561/837-5900, for additional information.

**FEBRUARY 23, 2015**
**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.** | 0990021-043-AC |
| **Issued:** | **DRAFT** |
| **Expires:** | **DRAFT** |

**LOCATED AT:**

**Project Description:** The purpose of this project is to construct a new Auxiliary Power Unit (APU) Testing Complex to test small jet fuel-fired turbine engines. The APU Testing Complex will be comprised of two new emission units (EU107 and EU108) at two separate locations. Existing emission units EU010 and EU085 are revised to incorporate new unregulated activities. The total emissions of NOx will be restricted to 31.42 tons per year. Restrictions also are set on the hours of operation and fuel burned by each program.

**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]*
**NAICS***:* 336412 *[Aircraft Engine and Engine Parts Manufacturing]*

**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

**DRAFT**

_____
Timothy G. Mayer, RS, MPH, Director
Division of Environmental Public Health

# SECTION I. FACILITY HISTORY

## PERMIT HISTORY

12/31/2015: Health Department received the permit application
02/23/2015: Intent to Issue and the Draft Permit issued
XX/XX/XXXX: Public Notice published
XX/XX/XXXX: Proof of publication submitted to the Health Department

## PROJECT DESCRIPTION

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

**The purpose of this construction permit application is to construct a new Auxiliary Power Unit (APU) Testing Complex to test small gas turbine engines. Auxiliary Power Units are installed in jet airliners to provide electrical power without operating the main engines. The proposed APU Testing Complex will consist of two emission units (EU107 and EU108) used to run five programs: Military Development, OEM, TJ150, Overhaul and Repair, and Tail Cones at C-10.**

EU107, located at existing C-10 Test Stand (currently part of EU069), will be used to run the Tail Cones at C-10 Program. EU107 will consist of four new aircraft tail cones used to mount APUs for testing. APU testing at EU107 will be controlled from the C-10 Control Room. EU108 will be used to run the Military Development, OEM, TJ150, Overhaul and Repair Programs and will be comprised of nine separate APU test cells housed within a proposed APU Testing Building (located south of the Engine Assembly Building). Three new, 10,000-gallon or smaller, jet fuel storage tanks (JP-8, JP-10, and Jet A fuel) will be installed adjacent to EU-108. Engine parts will be cleaned in the Engine Assembly Building using isopropyl alcohol (100 gallons per year) and hand wipes. The emissions associated with the new jet fuel storage tanks and parts cleaning are incorporated into existing, unregulated emission units EU-010 and EU-085, respectively.

Combustion of JP-8, JP-10, and Jet A fuels will be the primary source of potential emissions associated with EU0107 and EU0108. The total potential air emissions for NOx (31.42 tons per year (TPY)), CO (0.21 TPY), PM10 (0.72 TPY), SO2 (3.14 TPY), VOCs (0.44 TPY), and Total HAPs (0.11 TPY) were estimated using emission factors previously approved by the San Diego Air Pollution Control District in 2011 and limits set by the applicant on the number of annual operating hours and fuel burned by each program (see Section III for details).

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)", 40 CFR Part 63 Subpart HHHHHH "National Emission Standard for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources", and 40 CFR Part 63 Subpart GG "National Emission Standards for Aerospace Manufacturing and Rework Facilities".

# 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
***Appendix C:*** Test Procedures
***Appendix D:*** Emissions Factors for NOx and CO at various loads during the testing of small jet fuel-fired 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 3301 Gun Club Road, MSC 7210-1, West Palm Beach, Florida 33406. **[Specific Operating Agreement (SOA)]**

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.]**

Any applicant for a Title V permit, permit revision or permit renewal must submit an application form number 62-210.900(1), F.A.C., 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). Monitoring of HAPs shall be pursuant to permit condition 5.3 of this section.**

**[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 its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: https://cdx.epa.gov. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: http://www.epa.gov/osweroe1/content/rmp/index.htm. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.

(b) Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), 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. 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: The permittee shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading,

**SECTION II. FACILITY WIDE GENERAL CONDITIONS**

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.]**

4.6 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.]**

## SECTION II. FACILITY WIDE GENERAL CONDITIONS

### 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 **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.**

(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 units:**

| EU ID No | Brief Description |
|---|---|
| **107** | **Four Tail Cones at existing C-10 Test Stand**<br>Four new aircraft tail cones used to mount APUs for testing located at existing C-10 Test Stand currently part of EU-069<br>2-04-001-99 (JP-8 and JP-10), 2-04-001-10 (Jet A fuel) -- Internal combustion engine, Engine Testing, Aircraft Engine Testing, Other Not Classified |
| **108** | **Nine APU Test Cells Nine at proposed APU Testing Building**<br>Nine separate APU test cells housed within a proposed APU Testing Building (located south of the Engine Assembly Building)<br>2-04-001-99 (JP-8 and JP-10), 2-04-001-10 (Jet A fuel) -- Internal combustion engine, Engine Testing, Aircraft Engine Testing, Other Not Classified |

### 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 turbine engines, in excess of the limits set in Permit Conditions 4 and 5 of this subsection.

   **[Application No. 0990021-043-AC]**

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 Health Department: The permittee shall notify the Health Department within 30 days of commencing the operation of APU Testing Complex. **[Rule 62-4.070(3), F.A.C.]**

### PERFORMANCE STANDARDS

4. Hours of Operation: The hours of operation and fuel consumption of the APU Testing Complex Programs (Military Development, OEM, TJ150, Overhaul and Repair, and Tail Cones at C-10) are restricted to the yearly totals summarized below. **[Applicant request to escape PSD Regulations]**

   **Operation Hours and Fuel Consumption Restrictions**

| Program | Annual Operation Hours (hrs/yr) | Fuel Burned (gallons/yr) |
|---|---|---|
| Military Development | 2,880 | 84,575 |
| OEM | 2,476 | 229,614 |
| TJ150 | 2,400 | 70,479 |
| Overhaul and Repair | 4,033 | 374,003 |
| Tail Cones at C-10 | 1,500 | 139,104 |
| **TOTAL** | **13,289** | **897,774** |

5. Fuel Consumption:
   a. The permittee may only use JP-8, JP-10, or Jet A jet fuel during the testing of Auxiliary Power Units.
   b. The averaging period for the limits specified in Permit Condition 4 of this subsection is the 12-month rolling totals.
   **[Application No. 0990021-043-AC and Rule 62-4.070(3), F.A.C., Applicant requests to escape PSD]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

*[Permitting Note: Based on operating hours limit and the fuel consumption limit, the total combined emissions of NOx and CO are restricted to 31.4 tons per year and 0.46 tons per year for the APU Testing Complex.]*

### COMPLIANCE MONITORING REQUIREMENTS

6. Emissions Inventory: The permittee shall maintain a current emissions inventory for the overall APU Testing Complex and for each of the five testing programs: Military Development, OEM, TJ150, Overhaul and Repair, and Tail Cones at C-10. At a minimum, the emissions inventory shall be reviewed and revised monthly, as needed. The emissions inventory shall include the following information:

   (a) The program type

   (b) The turbine type

   (c) Duration of each test (hrs)

   (d) Fuel used for each test (gallons)

   (e) Monthly Hours of Operation

   (f) Monthly Fuel consumption

   (g) Previous 12-month total and monthly emissions calculations based on the emission factors and calculations provided in the permit application and included in **Appendix D**.

   **[Application No. 0990021-043-AC and Rule 62-4.070(3), F.A.C., Applicant's request to escape PSD]**

7. Monitoring of NOx: The permittee shall monitor the 12-month rolling total emissions of NOx from the APU Testing Complex operations (EUs 107 and 108) to ensure total annual emissions do not exceed 31.42 tons/year. Emissions shall be calculated as described in Special Condition 6 of this subsection. **[Rules 62-4.070 and 62-4.160(2), F.A.C.]**

8. 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 62-4.070(3), F.A.C.]**

### REPORTING AND RECORDKEEPING REQUIREMENTS

9. Monthly Inventory Records: The permittee shall maintain monthly inventory records as described in **Specific Condition 6** of this section summarizing site-wide emissions of NOx and CO for the previous 12 months. These records shall include, at a minimum, the monthly emissions and the rolling 12-month total of fuel consumption and 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 the Health Department representatives upon request. **[Rule 62-297.310(7) (b), F.A.C.]**

10. Actual Emission Reporting: The permittee shall calculate and maintain a record of the actual emissions of the PSD pollutants (CO, $NO_x$ and $PM_{10}$) from all the activities as permitted under air construction permits 0990021-043-AC, in tons per year on a calendar year basis, for a period of five years following commencement of regular operations after the construction. The facility shall submit the actual emissions report of the PSD pollutants to the health department within the 60 days after the end of each calendar year. The total actual emissions of the PSD pollutants shall be below the PSD Significant Emissions Rates as specified in Chapter 62-212, F.A.C. **[62-4.070(3), F.A.C.]**

## SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

### SUBSECTION B. Revised Unregulated Emission Units:

| EU ID No | Brief Description |
|---|---|
| **10** | **Jet fuel storage tanks**<br>(EU010 is revised to include three jet fuel storage tanks (JP-8, one JP-10, and one Jet A) with a maximum capacity of 10,000 gallons each associated with and located adjacent to EU-108) |
| **85** | **Miscellaneous VOC/HAP Emissions Sources.**<br>(EU085 is revised to include engine parts cleaning associated with APU testing. This process is conducted at the Engine Assembly Building and utilizes hand wipes and less than 100 gallons per year of isopropyl alcohol.) |

**AIR POLLUTION CONTROL EQUIPMENT**

11. 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.

12. Hours of Operation: The hours of operation of these emissions units are not limited (8760 hours per year).

13. Allowable Fuels: Fuel storage at the tanks associate with the APU project is limited to only those fuels listed in Permit Condition 5 of Subsection A of Section III.

**COMPLIANCE MONITORING REQUIREMENTS**

14. Records: The permittee shall be able to track the actual activity level for each emissions unit, reportable on an annual basis in accordance with the Annual Operating Report, DEP Form No. 62-210.900(5), F.A.C., 62-4.070(3).

## 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 Small Gas Turbine Engines Testing |

# 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:

(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

**APPENDIX A**
**GENERAL PERMIT CONDITIONS**

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:
    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 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 |
| 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 | Micrometer | +/-0.001" |

**APPENDIX C**
**Test Procedures**

| Table 297.310-1<br>Calibration Schedule | | | |
|---|---|---|---|
| **Item** | **Minimum Calibration Frequency** | **Reference Instrument** | **Tolerance** |
| | nicked, dented, or corroded<br>Max. deviation between readings | | mean of at least three readings<br>.004" |
| Dry Gas Meter and Orifice Meter | Full Scale: When received, When 5% change observed, Annually<br>1. One Point: Semiannually<br>2. Check after each test series | Spirometer or calibrated wet test or dry gas test meter<br>Comparison check | 2%<br>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.
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 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.

**APPENDIX C**
**Test Procedures**

(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.
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.]**

**APPENDIX C**
**Test Procedures**

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.
(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.

**APPENDIX C**
**Test Procedures**

(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.

(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 SMALL JET FUEL-FIRED TURBINE ENGINES TESTING

| PSD Regulated Pollutants | Emission Factor (lb/1,000 gal) |
|---|---|
| PM | 1.6 |
| PM10 | 1.6 |
| PM2.5 | 1.6 |
| SO2 | 7 |
| NOx | 70 |
| CO | 0.460 |
| VOC | 0.986 |
| HAPs | |
| Acetaldehyde | 3.75E-02 |
| Benzene | 1.79E-02 |
| 1,3 Butadiene | 1.92E-02 |
| Ethylbenzene | 1.99E-03 |
| Formaldehyde | 0.115 |
| Naphthalene | 4.72E-03 |
| PAH | 5.33E-03 |
| Phenol | 2.13E-03 |
| Styrene | 3.21E-03 |
| Toluene | 6.74E-03 |
| Xylenes | 6.47E-03 |
| Arsenic | 5.11E-03 |
| Cadmium | 6.16E-05 |
| Hexavalent Chromium | 4.29E-06 |
| Total Chromium | 8.57E-05 |
| Copper | 1.70E-04 |
| Nickel | 5.01E-05 |
| Zinc | 7.75E-03 |
| **Total HAPs** | **0.233** |

# TECHNICAL EVALUATION

# AND

# PRELIMINARY DETERMINATION

**Draft Air Construction Permit No. 0990021-043-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
P. O. Box 109600, MS 724-02
West Palm Beach, FL 33410-9600

1.2 Application Review

12/31/2014: Health Department received the permit application

## 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 | *Transportation Equipment* |
| Group Number | 372 | *Aircraft and Parts* |
| Industry Number | 3724 | *Aircraft Engines and Engine parts* |

2.3 Facility Category

This facility is a PSD facility. This facility is classified as a Title V facility based on the emissions of Nitrogen Oxides, Carbon Monoxide (CO), Sulfur dioxide (SO2). The facility is classified as a synthetic-minor source for individual and total hazardous air pollutants (HAPs)

## 3.0 PROJECT DESCRIPTION

3.1 List of Emissions Units:

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

| EU No. | R / U*/I** | Brief Description |
|---|---|---|
| ***Following emission units are located at Pratt & Whitney (except as noted)*** | | |
| 009 | U | Diesel storage tanks |
| **010** | **U** | Jet fuel storage tanks **(EU010 is revised to include three jet fuel storage tanks (JP-8, one JP-10, and one Jet A) with a maximum capacity of 10,000 gallons each associated with and located adjacent to EU-108)** |
| 012 | R | Jet fuel storage tank (F-8-CFF) |
| 014 | R | Paint spray booth (PS-1-TMC) used for refinishing support equipment |
| 031 | U | Diesel storage tanks (DL-19-SEGF and DL-20-SEGF) |
| 037 | U | AST Gasoline storage tanks |
| 045 | U | Water evaporator (EV-1-MW) |
| 049 | U | Plasma spray booths |
| 059 | U | Air and fuel heaters fired with natural gas |

| EU No. | R / U*/I** | Brief Description |
|---|---|---|
| 064 | R | Paint spray booth (PSB-1-RTF) |
| 065 | U | Diesel engines powering fire protection pumps and cooling water pumps during engine testing and emergency electrical generators |
| 069 | U | JP-8 Fueled Jet engine test stands – Test Area A/C |
| 070 | U | Aerospace hand-wiping operations |
| 071 | U | Aerospace spray gun cleaning operations |
| 072 | U | Aerospace flush cleaning operations |
| 073 | U | Aerospace primer and topcoat application operations (PS – 2 – MM) |
| 074 | U | Aerospace waste storage and handling operations |
| 077 | R | Combustion turbine test stands – Fired by Natural Gas |
| 079 | R | Two JP8 fired Turbine Engines powering air compressors used for jet engine tests (RAM Test Facility) |
| 088 | U | Engine Parts Coating Process |
| 089 | U | Hot Acoustic Rig (HAR) at Test Stand B-6. |
| 090 | R | FT4000 Gas Turbine Testing at Test Stand A4 |
| 091 | R | FT4000 Compressor Reciprocating Internal Combustion Engine (RICE) |
| 092 | R | 2100 hp Detroit Diesel Engine (Generator 1A) |
| 093 | R | 2100 hp Detroit Diesel Engine (Generator 1B) |
| 094 | R | 2100 hp Detroit Diesel Engine (Generator 2A) |
| 095 | R | 2100 hp Detroit Diesel Engine (Generator 2B) |
| 096 | R | 2100 hp Detroit Diesel Engine (Generator 3A) |
| 097 | R | 2100 hp Detroit Diesel Engine (Generator 3B) |
| 098 | R | 2100 hp Detroit Diesel Engine (Generator 4A) |
| 099 | R | 2100 hp Detroit Diesel Engine (Generator 4B) |
| 100 | R | 2100 hp Detroit Diesel Engine (Generator 5A) |
| 101 | R | 2100 hp Detroit Diesel Engine (Generator 5B) |
| 102 | R | 2100 hp Detroit Diesel Engine (Generator 6A) |
| 103 | R | 2100 hp Detroit Diesel Engine (Generator 6B) |
| 104 | R | 2100 hp Detroit Diesel Engine (Generator 7A) |
| 105 | R | 2100 hp Detroit Diesel Engine (Generator 7B) |
| 106 | R | A-5 Test Stand |
| **107** | **R** | **Four Aircraft Tail Cones used to mount APUs for testing located at EU0069** |
| **108** | **R** | **Nine test cells housed at proposed APU Testing Building** |
| ***Following emission units are located at Sikorsky Aircraft Corporation*** | | |
| 081 | R | SYK - Spray Booth (PS-14-SIK) for aerospace coating operations [Previously EU 006 in Sikorsky permit] |
| 082 | R | SYK - Spray Booth (PS-16-SIK) for aerospace coating operations [Previously EU 008 in Sikorsky permit] |
| 083 | R | SYK - Boiler (BO-4-SIK) ] fired by natural gas– 2.93 MMBTU/Hr Heat Input [Previously EU 009 in Sikorsky permit] |
| 084 | U | Alodine tank – about 10 gallon capacity |
| ***Following emission unit is used to track VOC emissions from miscellaneous activities at P&W and Sikorsky*** | | |
| **085** | **U** | Miscellaneous VOC/HAP Emissions Sources. **(EU085 is revised to include engine parts cleaning associated with APU testing. This process is conducted at the Engine Assembly Building and utilizes hand wipes and less than 100 gallons per year of isopropyl alcohol.)** |
| ***Following emission units are located at the FIT Center*** | | |
| 086 | R | Fire Innovation and Test Center |
| 087 | R | 810 KW Diesel Generator |

* (R)egulated and (U)nregulated: An unregulated emissions unit is an emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards. Such emissions units and/or activities are neither "regulated nor exempt.
** I = Inactive

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

### 3.2 Project Description

On December 31, 2014, the United Technologies Corporation (UTC) applied to the Department of Health Palm Beach County for an Air Construction Permit for the facility located at 17900 Beeline Highway (SR-710), Jupiter, FL 33478.

The purpose of this construction permit application is to construct a new Auxiliary Power Unit (APU) Testing Complex to test small jet fuel-fired turbine engines. Auxiliary Power Units are installed in jet airliners to provide electrical power without operating the main engines. The proposed APU Testing Complex will consist of three emission units (EU107 and EU108) used to run five programs: Military Development, OEM, TJ150, Overhaul and Repair, and Tail Cones at C-10.

EU107, located at existing C-10 Test Stand (currently part of EU069), will be used to run the Tail Cones at C-10 Program. EU107 will consist of four new aircraft tail cones used to mount APUs for testing. APU testing at EU107 will be controlled from the C-10 Control Room. EU108 will be used to run the Military Development, OEM, TJ150, Overhaul and Repair Programs and will be comprised of nine separate APU test cells housed within a proposed APU Testing Building (located south of the Engine Assembly Building). Three new, 10,000-gallon or smaller, jet fuel storage tanks (JP-8, JP-10, and Jet A fuel) will be installed adjacent to EU-108. Engine parts will be cleaned in the Engine Assembly Building using isopropyl alcohol (100 gallons per year) and hand wipes. The emissions associated with the new jet fuel storage tanks and parts cleaning are incorporated into existing, unregulated emission units EU-010 and EU-085, respectively.

Combustion of JP-8, JP-10, and Jet A fuels will be the primary source of potential emissions associated with EU0107 and EU0108. The total potential air emissions for NOx (31.42 tons per year (TPY)), CO (0.21 TPY), PM10 (0.72 TPY), SO2 (3.14 TPY), VOCs (0.44 TPY), and Total HAPs (0.11 TPY) were estimated using emission factors **(Table 2)** previously approved by the San Diego Air Pollution Control District in 2011 and limits set by the applicant on the number of annual operating hours and fuel burned by each program (**Table 3**).

## 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 emissions increases. A significant emission increase threshold for CO, $NO_x$ and $PM_{10}$ is 100 tons per year (TPY), 40 TPY and 100 TPY respectively.

### 4.1 PSD Applicability for Project:

The facility submitted permit application 0990021-043-AC. Permit 0990021-043-AC authorizes the construction of a new Auxiliary Power Unit (APU) Testing Complex as detailed under section 3.2 above.

For the evaluation of the PSD applicability, the potential emissions for all the activities permitted under 0990021-043-AC are considered as one project.

**Table 1 – PSD Applicability**

| EU No. | Description | Pollutant | PTE for Individual Emissions Units (TPY) | Project Potential Emission (TPY) | Significant Emissions Rate (TPY) | Subject to PSD? |
|---|---|---|---|---|---|---|
| 107 | Four Aircraft Tail Cones used to mount APUs for testing located at EU0069 | CO | 0.032 | 0.206 | 100 | No |
| 108 | Nine test cells housed at proposed APU Testing Building | | 0.177 | | | |
| 107 | Four Aircraft Tail Cones used to mount APUs for testing located at EU0069 | $NO_x$ | 4.87 | 31.42 | 40 | No |
| 108 | Nine test cells housed at proposed APU Testing Building | | 26.55 | | | |
| 107 | Four Aircraft Tail Cones used to mount APUs for testing located at EU0069 | $PM_{10}$ | 0.148 | 0.718 | 100 | No |
| 108 | Nine test cells housed at proposed APU Testing Building | | 0.570 | | | |

The potential air emissions of NOx, CO and $PM_{10}$ from this project are 31.42 tons per year (TPY), 0.206 TPY and 0.718 TPY respectively, which are below the significant emissions rate for PSD applicability.

## 4.2 List of Applicable Regulations

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***
***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

## 4.3 Potential to Emit (PTE):

The total potential air emissions for NOx (31.42 tons per year (TPY)), CO (0.21 TPY), PM10 (0.72 TPY), SO2 (3.14 TPY), VOCs (0.44 TPY), and Total HAPs (0.11 TPY) were estimated using emission factors previously approved by the San Diego Air Pollution Control District in 2011 and limits set by the applicant on the total number of annual operating hours (13,289 hours) of all five programs combined and total fuel burned (897,774 gallons).

The emissions factors used for the calculation of PTE are shown below:

**Table 2 – Emission Factors**

| PSD Regulated Pollutants | Emission Factor (lb/1,000 gal)[a] |
|---|---|
| PM | 1.6 |
| PM10 | 1.6 |
| PM2.5 | 1.6 |
| SO2 | 7 |
| NOx | 70 |
| CO | 0.460 |
| VOC f | 0.986 |
| **HAPs** | |
| Acetaldehyde | 3.75E-02 |
| Benzene | 1.79E-02 |
| 1,3 Butadiene | 1.92E-02 |
| Ethylbenzene | 1.99E-03 |
| Formaldehyde | 0.115 |
| Naphthalene | 4.72E-03 |
| PAH | 5.33E-03 |
| Phenol | 2.13E-03 |
| Styrene | 3.21E-03 |
| Toluene | 6.74E-03 |
| Xylenes | 6.47E-03 |
| Arsenic | 5.11E-03 |
| Cadmium | 6.16E-05 |
| Hexavalent Chromium | 4.29E-06 |
| Total Chromium | 8.57E-05 |
| Copper | 1.70E-04 |
| Nickel | 5.01E-05 |
| Zinc | 7.75E-03 |
| **Total HAPs** | **0.233** |

[a] Emission factors determined from letter sent to San Diego Air Pollution Control District in June 2011.

Annual operation hours and fuel consumption used for the calculation of PTE are shown below:

**Table 3 – Operation Hours and Fuel Consumption**

| Program | Annual Operation Hours (hrs/yr) | Fuel Burned (gallons/yr |
|---|---|---|
| Military Development | 2,880 | 84,575 |
| OEM | 2,476 | 229,614 |
| TJ150 | 2,400 | 70,479 |
| Overhaul and Repair | 4,033 | 374,003 |
| Tail Cones at C-10 | 1,500 | 139,104 |
| **TOTAL** | **13,289** | **897,774** |

## 5.0 SOURCE IMPACT ANALYSIS

The facility will maintain records of monthly fuel consumption and operating hours of the testing stand and will report these parameters in the annual operating reports. The facility will also report the annual record of the actual emissions of the PSD pollutants (CO, $NO_x$ and $PM_{10}$) from all the engines that are tested in the APU Testing Complex, in tons per year on a calendar year basis, for a period of five years following commencement of regular operations after the construction. Such record keeping and reporting are required to maintain the synthetic minor status for PSD pollutants. The 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.