



Florida Department of Environmental Protection

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Secretary

Electronically Sent- Received Receipt Requested

DRAFT PERMIT

PERMITTEE

U.S. Air Force – Patrick Air Force Base
45 SW/CC, 1201 Edward H. White II Street
Patrick AFB, Florida 32925-3299

Authorized Representative:
Robert J. Pavelko, Colonel, USAF, Vice Commander

Air Permit No. 0090021-012-AC
Permit Expires: 01/31/2014
Site Name : Patrick Air Force Base (PAFB)
Major Source Air Construction Permit
Project Name: Air Force Technical
Application Center Construction

This is the final air construction permit, which authorizes construction of the Air Force Technical Application Center (AFTAC). The construction will include the installation of three new emergency generators (modification of Emission Unit No. 060) and the installation of two new gas-fired boilers (Emission Unit 063). The proposed work will be conducted at the Patrick Air Force Base (PAFB), Building 630 (Standard Industrial Classification No. 9711). The facility is located in Brevard County at 45 CES/CEAN, 1224 Jupiter Street, MS 9125 in Patrick Air Force Base, Florida. The UTM coordinates are Zone 17, 538.21 km East, and 3124.81 km North.

This final permit is organized by the following sections:

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Facility-wide and Emissions Unit Specific Conditions

Section 4. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of

the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Orange County, Florida

DRAFT

October 19, 2012

Caroline D. Shine

Date

District Air Program Administrator
Central District

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination, the Final Permit and the Appendices) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on October 19, 2012 to the persons listed below.

Colonel Robert J. Pavelko, PAFB (**45swcce@patrick.af.mil**)

Ms. Geraldine Arellano, PAFB (**geraldine.arellano@us.af.mil**)

Dr. Mitchell Jay Hait, P.E., Mitchell J. Hait, Ph.D., P.E., Inc. (**haitinc@gmail.com**)

Ms. Ana Oquendo, EPA Region 4 (**oquendo.ana@epamail.epa.gov**)

Ms. Barbara Friday, DEP BAR (**barbara.friday@dep.state.fl.us**) (for posting with U.S. EPA, Region 4)

Clerk Stamp

FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

DRAFT

October 19, 2012

(Clerk)

(Date)

SECTION 1. GENERAL INFORMATION (DRAFT)

FACILITY AND PROJECT DESCRIPTION**Patrick Air Force Base**

Patrick Air Force Base is a military facility that contains steam boilers, surface coating operations equipped with dry filters, a blast booth, and petroleum storage tanks.

The existing facility consists of the following emissions units.

Facility ID No. 0090021	
ID No.	Emission Unit Description
002	Bldg. 314 (P314EC1), Boiler No. 1, Central Heat Plant
003	Bldg. 314 (P314EC2), Boiler No. 2, Central Heat Plant
018	Bldg. 1380 (P1380EC1), Boiler No. 1
019	Bldg. 1380 (P1380EC2), Boiler No. 2
032	Two Gasoline Storage Tanks
036	Bldg. 511 (P511PB1), Spray Booth No. 1
037	Bldg. 511 (P511PB2), Spray Booth No. 2
039	Bldg. 630 (P630PB1), Spray Booth No. 4
040	Bldg. 331 (P331PB1), Spray Booth No. 5
041	Bldg. 313 (P313PB1), Spray Booth No. 6
043	Eleven Jet Fuel Storage Tanks (PASJP1); Six Diesel/Biodiesel Storage Tanks (PASDJP1)
054	Bldg. 313, DLM Spray Booth
055	Bldg. 313, Abrasive Blast Booth
056	Bldg. 3656 (P3656EC1), Boiler No. 1
057	Bldg. 632 (P632EC1), Boiler No. 1
058	Bldg. 691 (P691EC1), Boiler No. 1
059	Bldg. 3659 (P3659EC1), Boiler No. 1
060	(7) New Source Emergency Generators
061	(19) Existing Source Emergency Generators
062	(4) Existing Source Emergency Generators included in Florida Power and Light (FPL) Demand Response Program

Project Description and Affected/Proposed Emission Unit

This project will involve the construction of the Air Force Technical Application Center (AFTAC). The project includes the installation of three Emergency Generators (included in EU 060) and installation of two, gas-fired boilers (EU063).

This project will modify the emission unit EU 060 and create new emission unit EU063.

SECTION 1. GENERAL INFORMATION (DRAFT)

Facility ID No. 0090021	
ID No.	Emission Unit Description
060	(3) New Source Emergency Generators (the 3 emergency generators will be added to the existing 7 emergency generators, resulting in a total of 10 emergency generators)
063	AFTAC building, (2) gas fired steam boilers

NOTE: Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

PERMIT HISTORY/AFFECTED PERMITS

New Construction Permit for AFTAC building construction to include installation of three emergency generator and two steam boilers.

SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

1. Permitting Authority: The permitting authority for this project is the Florida Department of Environmental Protection, Central District Air Resource Management Section. The Central District's mailing address and phone number is:

Florida Department of Environmental Protection
Central District Office
Air Resource Management Section
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
Telephone: 407-897-4100

All documents related to applications for permits shall be submitted to the above address.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Central District Air Resource Management Section (see above mailing address and phone number).
3. Appendices: The following Appendices are attached as part of this permit:
 - a. Appendix A. Citation Formats and Glossary of Common Terms;
 - b. Appendix B. General Conditions;
 - c. Appendix C. Common Conditions;
 - d. Appendix D. 40 CFR 60, Subpart A- General Provisions;
 - e. Appendix E. 40 CFR 60, Subpart Dc- Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
 - f. Appendix F. 40 CFR 60, Subpart IIII, Stationary Compression Ignition (CI) Internal Combustion Engines
 - g. Appendix G. 40 CFR 63, Subpart A, NESHAP General Provisions
 - h. Appendix H. 40 CFR 63, Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.
[Rule 62-4.080, F.A.C.]

SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

6. Modifications: Unless otherwise exempt by rule, the permittee shall not initiate any construction, reconstruction, or modification at the facility and shall not install/modify any pollution control device at the facility without obtaining prior authorization from the Department. Modification is defined as: Any physical change or changes in the method of operations or addition to a facility that would result in an increase in the actual emissions of any air pollutant subject to air regulations, including any not previously emitted, from any emission unit or facility.
[Rules 62-210.200 - Definition of "Modification" and 62-210.300(1)(a), F.A.C.]
7. Annual Operating Report: On or before **April 1** of each year, the permittee shall submit a completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility" (AOR) for the preceding calendar year. The report may be submitted electronically in accordance with the instructions received with the AOR package sent by the Department, or a hardcopy may be sent to the Compliance Authority.
[Rule 62-210.370(3), F.A.C.]
8. Application for Title V Air Operation Permit: This permit authorizes construction or modification of the permitted emissions unit(s) and initial operation to determine compliance with Department rules. A Title V air operation permit is required for continued operation of the permitted emissions unit(s). The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation or commencing operation as modified. Commencing operation means setting into operation of any emissions unit for any purpose. To apply for a Title V air operation permit, the applicant shall submit the following:
- the appropriate permit application form (*see current version of Rule 62-210.900, F.A.C. (Forms and Instructions), and/or FDEP Division of Air Resource Management website at: <http://www.dep.state.fl.us/air/>*);
 - copies of the most recent two months of records/logs specified in Specific Condition No(s). **A.8** and **B.7**.

The application shall be submitted to the Permitting Authority.

[Rules 62-4.030, 62-4.050, 62-4.070(3), 62-4.090, 62-210.300(2), and 62-210.900, F.A.C.]

SECTION 3. FACILITY-WIDE AND EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. EU 060 - New Source Emergency Generators

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
060	Three New Source Emergency Generators. The units are Caterpillar Model 3616C, compression ignition (CI) reciprocating internal combustion engines (RICE), each with a maximum rating of 2,937 horse power and 2,000 kilowatts electrical output.

PERFORMANCE RESTRICTIONS

- A.1. Federal Regulatory Requirements: This emission unit is subject to 40 CFR 60, Subpart A-General Provisions (see Appendix D), Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (See Appendix F), 40 CFR 63, Subpart A, NESHAP General Provisions (see Appendix G) and 40 CFR 63, Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines (RICE, see Appendix H), which are adopted by reference in Rule 62-204.800, F.A.C. The conditions are incorporated into this permit **(attached and part of this permit)**.
- A.2. Allowable Fuel. Each stationary RICE must use no. 2 fuel oil that meets the following requirements:
- The sulfur content shall not 15 parts per million (ppm) by weight.
 - The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
- [40 CFR 60.4207(b) and 80.510(b)]
- A.3. Hours of Operation.
- Emergency Situations*. There is no time limit on the use of any emergency stationary RICE in emergency situations. [40 CFR 60.4211(e)]
 - Maintenance and Testing*. Each RICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. [40 CFR 60.4211(e)]
 - Other Situations*. Each RICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4219]
- A.4. Hour Meter. The owner or operator must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

SECTION 3. FACILITY-WIDE AND EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. EU 060 - New Source Emergency Generators

EMISSIONS STANDARDS

- A.5. Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). [Rule 62-296.320(b)1.]
- A.6. The permittee has indicated that these engines will demonstrate compliance with the emission limitations of applicable federal rules through retention of a manufacturer's certification statement. So long as that certification is able to be retained, no additional compliance demonstration is required. At such time that the manufacturer's certification is no longer valid (i.e., due to operation or maintenance practices that are inconsistent with the manufacturer's recommendations), the permittee shall begin demonstrating compliance with the standards listed in the applicable federal rule (included in the appendices as an enforceable part of this permit) in a manner that is prescribed by that rule. [Rule 62-204.800(8)(b)79. and (11)(b)82., F.A.C.]
- A.7. Operation and Maintenance. The owner or operator must operate and maintain each of the stationary RICE according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. [40 CFR 60.4211(a)]

RECORDS AND REPORTS

- A.8. Fuel Certification Requirements: In order to demonstrate ongoing compliance with Specific Condition No. **A.2.**, the permittee shall maintain fuel supplier certifications for each shipment of fuel oil received. The certifications shall include the following information for distillate oil:
- (i) The name of the oil supplier and either (ii) and (iii), or (iv) following.
 - (ii) The sulfur content shall not exceed 15 parts per million by weight.
 - (iii) The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent;
 - (iv) Documentation that the fuel is ultra low sulfur diesel (e.g., fuel delivery receipt).

The records of the fuel supplier certifications that are maintained shall represent all of the fuel combusted in the generator.

[Rules 62-210.200(PTE) and 62-4.070(3), F.A.C. and 40 CFR60, Subpart IIII, §60.4207]

SECTION 3. FACILITY-WIDE AND EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. EU 060 - New Source Emergency Generators

- A.9. Monthly Recordkeeping Requirement. In order to demonstrate compliance with Specific Conditions No. **A.2.** and **A.3.**, the permittee shall maintain a log at the facility for a period of at least five (5) years from the date the data is recorded. The log, at a minimum, shall contain the following:

Monthly

- a. Date (month/year) for which the records are being recorded;
- b. Consecutive twelve-month total of the quantity of each fuel type combusted for each individual RICE; and
- c. Consecutive twelve-month total of operational hours (non-emergency) for each RICE.

Monthly logs shall be completed by the end of the following month.

Note: A consecutive 12 month total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-month total treats each month of the year as the end of a 12-month period. A 12-month total is not a year-to-date total. Facilities that have not been operating for 12 months should retain 12 month totals using whatever number of months of data are available until such a time as a consecutive 12 month total can be maintained each month.

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

- A.10. Supporting Documentation. Supporting documentation, such as fuel records, purchase orders, etc., shall be kept which includes sufficient information to determine compliance. The log and documents shall be kept at the facility for at least five (5) years and made available to the Department upon request. [Rules 62-4.070(3), F.A.C.]

SECTION 3. FACILITY-WIDE AND EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

B. EU 063 – AFTAC Building (2) gas-fired steam boilers

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
063	Two steam boilers. The units are Cleaver Brooks Model 4WI boilers, each with a maximum heat input rate of 10.205 million British thermal units (BTU) per hour. These boilers are planned to be fired natural gas or fuel oil as an emergency backup only.

PERFORMANCE RESTRICTIONS

- B.1. Federal Regulatory Requirements: This emission unit is subject to 40 CFR 60, Subpart A- General Provisions (See Appendix D) and Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (See Appendix E), which is adopted by reference in Rule 62-204.800, F.A.C. The conditions and terms of this regulation are incorporated into this permit (**attached and part of this permit**).
[Rule 62-204.800(8), F.A.C.]

{Permitting Note: Regarding 40 CFR 60 Subpart Dc, the boilers are only subject to the recordkeeping requirements.}

- B.2. Permitted Capacity: The maximum heat input for each boiler rate shall not exceed 10.205 MMBtu/hr. [Rule 62-210.200(PTE), F.A.C.]
- B.3. Authorized Fuel: The 2 boilers are only permitted to fire natural gas as a primary fuel or no. 2 fuel oil as an emergency backup during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. The sulfur content of the no.2 fuel oil shall not exceed 15 parts per million (ppm) by weight.
[Rules 62-4.070(3), 62-210.200(PTE), and 62-213.410, F.A.C.; 40CFR60, Subpart Dc, §60.44c (g)]
- B.4. Restricted Operation: The hours of operation are not limited (8,760 hours per year).
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]
- B.5. Restricted Operation: Each boiler is limited to less than 48-hours per year firing fuel oil for non-emergency purposes. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

- B.6. Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity).
[Rule 62-296.320(b)1.].

RECORDS AND REPORTS

SECTION 3. FACILITY-WIDE AND EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

B. EU 063 – AFTAC Building (2) gas-fired steam boilers

- B.7. Fuel Certification Requirements: In order to demonstrate ongoing compliance with Specific Condition No. **B.3.**, the permittee shall maintain fuel supplier certifications for each shipment of fuel oil received. The certifications shall include the following information for distillate oil:
- (i) The name of the oil supplier and either (ii) and (iii), or (iv) following.
 - (ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c of 40CFR 60, Subpart Dc; and
 - (iii) The sulfur content or maximum sulfur content of the oil;
 - (iv) Documentation that the fuel is ultra low sulfur diesel (e.g., fuel delivery receipt).

The records of the fuel supplier certifications that are maintained shall represent all of the fuel oil combusted in the boiler.

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

{Permitting Note: Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17) or diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975.}

- B.8. Monthly Recordkeeping Requirements: In order to demonstrate compliance with Specific Condition Nos. **B.2.**, **B.3.**, **B.4.**, and **B.5.**, the permittee shall maintain a log at the facility for a period of at least five (5) years from the date the data is recorded and made available to the Department upon request. The log shall contain the following:
- a. Facility Name, Facility ID No. (i.e., 0090005);
 - b. Month and year of record;
 - c. Type and quantity of fuel used to fire the boiler for the most recent consecutive 12-month period; and
 - d. Total operational hours for the boiler when it is burning a liquid fuel for the most recent consecutive 12-month period.

The monthly logs shall be completed by the end of the following month.

Note: A consecutive 12 months total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-months total treats each month of the year as the end of a 12-months period. A 12-months total is not a year-to-date total. Facilities or emission units that have not been operating for 12 months should retain 12 months totals using whatever number of months of data are available until such a time as a consecutive 12 months total can be maintained each month.

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