



**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

APPLICANT

United States Air Force (USAF)
45 SW/CC, 1201 Edward H. White II Street
Patrick AFB, Florida 32925-3299

Cape Canaveral Air Force Station (CCAFS)

Facility ID No. 0090005

PROJECT

Project No. 0090005-013-AC
Application for Minor Source Air Construction Permit
Project Name: Dual-Fired Boiler #12

COUNTY

Brevard County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Management
Central District Office
3319 Maguire Blvd., Ste. 232, Orlando, FL 32803-3767

May 21, 2012 and June 8, 2012

Prepared by Natrevia Gradney-Mitchell, E.I. and Jeff Rustin, P.E.

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GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources – Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

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

I. Project Description:

A. Applicant:

Mr. Anthony J. Cotton, Brigadier General, USAF, Commander
United States Air Force, Cape Canaveral Air Force Station
45 SW/CC, 1201 Edward H. White II Street
Patrick AFB, Florida 32925-3299

B. Professional Engineer:

Mr. David Ashley Luke, Jr., P.E.
Merrick & Company
229 Peachtree Street, N.E., Suite 600
Atlanta, GA 30030-1619

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C. Project Location:

Cape Canaveral Air Force Station (CCAFS)
Cape Canaveral, Florida 32920

D. Project Summary:

The proposed project consists of expanding and renovating Building 1777 at CCAFS. The new expansion will require the use of a single dual-fired steam boiler (BLR-101, Model No. CBEX-250) rated at 250 bhp (boiler horsepower) with a maximum heat input of 10.2 MMBtu/hr. This boiler is planned to be dual-fired by either natural gas or No. 2 fuel oil, as further described in the permit.

E. Application Information:

Application Received and Complete on: 04/11/2012

II. PSD Applicability for Project

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.

III. Rule Applicability

This project is subject to the preconstruction review requirements of Chapter 403, Florida Statutes and Chapters 62-204 through 62-297, Florida Administrative Code (F.A.C.), as indicated below.

Subject to:	Y/N	Comments
Rule 62-210.300, F.A.C. - Stationary Source General Requirements	Y	Not exempt from general permitting requirements.
Rule 62-212.400, F.A.C. - Prevention of Significant Deterioration	N	Facility is not a PSD major source.
Rule 62-296.320(4), F.A.C. - General Particulate Emission Limiting Standards	Y	Unconfined particulate matter emissions from vehicular traffic on paved and unpaved roads; and construction activities.
Rules 62-296.320(1) and (2), F.A.C. - General Pollutant Emission Limiting Standards (VOCs and Odor)	Y	Facility operations are a source of VOC.

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Subject to:	Y/N	Comments
Rule 62-296.400, F.A.C. - Stationary Source Emission Standards	Y	EU No. 070 is subject to 62-296.406, F.A.C. – Fossil Fuel Steam Generators with Less Than 250 MMBtu/hr.
Rule 62-296.500, F.A.C. - Reasonably Available Control Technology (VOC)	N	Brevard County is an attainment area for ozone.
Rule 62-296.700, F.A.C. - Reasonably Available Control Technology (PM)	N	There is no applicable source category.
Rule 62-204.800, F.A.C. - Standards of Performance for New Stationary Sources (NSPS)	Y	EU No. 070 is subject to 40 CFR Part 60, Subpart A and 40 CFR Part 60, Subpart Dc.
Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants (NESHAPS – 40 CFR 61)	N	There is no applicable source category.
Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants for Source Categories a.k.a. MACT (NESHAPS – 40 CFR 63)	Y	If the boiler meets the definition of gas fired boiler listed in specific condition A.7., the boiler <u>will not</u> be subject to 40 CFR 63 Subpart A and 40 CFR 63 Subpart JJJJJ and the regulation will not be included as part of the Title V Air Operation Permit Revision that will incorporate the boiler. This federal regulation has not yet been adopted by reference in Rule 62-204.800, F.A.C.
Chapter 62-213, F.A.C. - Operation Permits for Major Sources of Air Pollution	Y	Facility is a major Title V source.
Rule 62-297.310, F.A.C. - General Compliance Test Requirements, F.A.C. and Rule 62-296.406(1), F.A.C.	Y	Initial VE Testing required. Visible emissions shall not exceed 20 percent opacity except for one six-minute period per hour during which the opacity shall not exceed 27 percent, or one two-minute period per hour during which opacity shall not exceed 40 percent.

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IV. Summary of Emissions

Pollutant	EU No. and brief description	Potential Emissions (tpy)	Allowable Emissions (tpy)
PM	070-CCAFS Boiler # 12 (Cleaver Brooks, Building 1777)	0.639	
VOC		0.011	
NO _x		6.386	
SO ₂		0.023	Maximum sulfur content for diesel fuel is 0.05 percent , by weight.
CO		1.597	
Total HAP		0.013	Less than 24.5 (facility-wide)
Individual HAP			Less than 9.5 (facility-wide)
VE			Visible emissions shall not exceed 20 percent opacity except for one six-minute period per hour during which the opacity shall not exceed 27 percent, or one two-minute period per hour during which opacity shall not exceed 40 percent.

V. Federal NSPS and/or NESHAP Provisions

- A. NSPS Regulations: This emissions unit is subject to 40 CFR 60, Subpart A- General Provisions (See Appendix E) and 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (See Appendix F).
- B. NESHAP Regulations: If the boiler meets the definition of gas fired boiler listed in specific condition A.7., the boiler will not be subject to 40 CFR 63 Subpart A and 40 CFR 63 Subpart JJJJJ and the regulation will not be included as part of the Title V Air Operation Permit Revision that will incorporate the boiler. **This federal regulation has not yet been adopted by reference in Rule 62-204.800, F.A.C.**

VI. Conclusions

The emission limits proposed by the applicant will meet all of the requirements of Chapters 62-204 through 297, F.A.C.

The General and Specific Conditions listed in the proposed permit (attached) will assure compliance with all the applicable requirements of Chapters 62-204 through 297, F.A.C.

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VII. Preliminary Determination

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. Additional details of this analysis may be obtained by contacting the project engineer at the Florida Department of Environmental Protection Air Resource Management, Central District, 3319 Maguire Blvd., Ste. 232, Orlando, FL 32803-3767.

Pursuant to Section 403.087, Florida Statutes and Section 62-4.070, Florida Administrative Code, the Department hereby gives notice of its intent to issue a permit to construct the aforementioned air pollution source in accordance with the draft permit and its conditions as stipulated (see attached).