United States Air Force
Cape Canaveral Air Force Station

Facility ID No. 0090005
Brevard County

Title V Air Operation Permit Renewal

Permit No. 0090005-011-AV
(Renewal of Title V Air Operation Permit No. 0090005-010-AV)

Permitting Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Central District

3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

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Compliance Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Central District

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DRAFT PERMIT

PERMITTEE:
United States Air Force
45 SW/CC, 1201 Edward H. White II Street
Patrick Air Force Base, FL 23925-3299

Permit No. 0090005-011-AV
Cape Canaveral Air Force Station (AFS)
Facility ID No. 0090005
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The existing Cape Canaveral AFS is located in Brevard County at 45 CES/CEAN, 1224 Jupiter Street, Patrick Air Force Base, Florida. UTM Coordinates are: Zone 17, 538.66 East and 3143.65 North. Latitude is: 28˚25′07.3614″ North; and, Longitude is: 80˚36′19.0473″ West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: TBD
Renewal Application Due Date: TBD
Expiration Date: TBD

(Draft)

_____

Caroline D. Shine
Air Program Administrator

CDS/jr/ng

Subsection A. Facility Description.

Cape Canaveral Air Force Station (CCAFS) is an Air Force installation that occupies approximately 15,800 acres and provides space launch capability for defense, civil, and commercial satellites in support of the 45th Space Wing mission, Eastern Range, and Department of Defense operations.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
018	CCAFS Paint Spray Booth #1
019	CCAFS Boiler #3 (Cleaver Brooks)
020	CCAFS Boiler #4 (Cleaver Brooks)
045	CCAFS Abrasive Blasting Yard #2
052	CCAFS Paint Spray Booth #5
	CCAFS Abrasive Blasting Booth #1
053	CCAFS Boiler #7 (Donlee Technology)
054	CCAFS Boiler #8 (Donlee Technology)
058	CCAFS I.C. Engine Driven Chiller
062	CCAFS Facility-wide I. C. Engines and Generators using No. 2 Diesel Fuel
064	CCAFS Abrasive Blasting Yard #4
Unregulated Emissions Units and Activities	
059	CCAFS Unregulated Abrasive Blasting Yard #U1
061	CCAFS Unregulated Abrasive Blasting Yard #U2
063	CCAFS Facility-wide I. C. Engines and Generators using Gasoline

Subsection C. Applicable Regulations.

Based on the recent Title V air operation permit renewal application received June 03, 1996, this facility is a minor source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating internal combustion engines it is considered to be an Area Source of HAPS, some of the engines may be subject to 40 CFR Part 60, Subpart IIII-Standards of Performance for Stationary Compression Ignition Internal Combustion Engine or 40 CFR Part 63, Subpart ZZZZ-National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Please see Appendix ICE of this permit to see the applicability for a specific engine. A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
40 CFR Part 60, Subpart A and 40 CFR Part 60, Subpart IIII	-062
40 CFR Part 63, Subpart A and 40 CFR Part 63, Subpart ZZZZ	-062
State Rule Citations (62-210, 62-213, 62-296.320, 62-297)	Facility

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. **Not federally Enforceable.** Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. To comply, procedures to minimize pollutant emissions shall include the following:

a) tightly cover or close all VOC containers when they are not in use;
b) tightly cover, where possible, all open troughs, basins, baths, tanks, etc. when they are not in use;
c) maintain all piping, valves, fittings, etc. in good operating condition;
d) prevent excessive air turbulence across exposed VOC's; and
e) immediately confine and clean up spills of VOC containing materials.

[Rule 62-296.320(1), F.A.C.]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW5. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by **April 1st** of each year. [Rule 62-210.370(3), F.A.C.]

FW6. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rule 62-213.205, F.A.C.]

FW7. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

FW8. Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:
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 to: 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.
[40 CFR 68]

FW9. Title V Air Operation Permit Renewal. At least **225 days prior** to the expiration date of this operation permit, the permittee shall submit to the Central District office, four copies of the appropriate air permit application, DEP Form No. 62-210.900(1).
[Rule 62-213.420(a)2., F.A.C.]

Subsection A. Steam Boilers

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
-019	CCAFS Boiler #3 (Cleaver Brooks, Model No. CB-100-102) - Boiler is used for temperature and humidity control.
-020	CCAFS Boiler #4 (Cleaver Brooks, Model No. CB-100-102) - Boiler is used for temperature and humidity control.
-053	CCAFS Boiler #7 (Donlee Technology, Model No. SPW-80-N/2-14883) - Boiler is used for temperature and humidity control.
-054	CCAFS Boiler #8 (Donlee Technology, Model No. SPW-80-N/2-14883) - Boiler is used for temperature and humidity control.

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum annual (consecutive twelve months) heat input rate is as follows:

EU No.	Combined Natural Gas Usage for Boilers	Fuel Type
-019, -020, -053, -054	205 MMSCF	Natural Gas

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), 62-296.406, F.A.C.; Applicant's request in Title V permit application received July 29, 2011]

A.2. Methods of Operation. Each boiler is allowed to fire natural gas only.
[Rule 62-213.410, F.A.C.; Permit No. 0090005-008-AC]

A.3. Hours of Operation. These emissions units may operate continuously (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

A.4. Visible Emissions. Visible emissions shall not exceed 20% opacity except for one two-minute period per hour during which opacity shall not exceed 40%. [Rule 62-296.406(1), F.A.C.]

Recordkeeping and Reporting Requirements

A.5. Monthly Recordkeeping Requirements. In order to demonstrate compliance with Specific Condition Nos. **A.1.,** 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) Facility Name, Facility ID No. (i.e., 0090005);
b) Month and year of record; and
c) Consecutive 12-month total of fuel usage.

Monthly logs shall be completed by the end of the following month.
[Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]

Subsection B. Paint Spray Booths

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
-018	CCAFS Paint Spray Booth #1 equipped with dry paint filters.
-052	CCAFS Paint Spray Booth #5 equipped with dry paint filters and fully enclosed. **(shared with CCAFS Abrasive Blasting Booth #1)**

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum permitted throughput for each emissions unit shall not exceed the following:

EU No.	Usage Rate of VOC/HAP containing materials (chemicals) (gallons per any consecutive 12-months)	HAP Containing Material (pounds per gallon)
-018	1,144	7.5
-052	1,531	7.5

[Rule 62-210.200(PTE), F.A.C.; Applicant's request in Title V application received on 7/29/11]

B.2. Hours of Operation. These emissions units may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

B.3. Circumvention. No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly. [Rules 62-210.200, (PTE) and 62-210.650, F.A.C.]

Emission Limitations and Standards

B.4. HAP Emissions Limitations. The maximum **facility-wide** HAP emissions are limited to the following:

Pollutant	Emissions (tons per any consecutive 12-months)
Total HAPs	**Less than 24.5**
Single HAPs	**Less than 9.5**

B.5. VOC Emissions Limitations. The maximum VOC emissions are limited to the following for EU No. 018 and EU No. 052:

EU No.	Pollutant	Emissions (tons per month)	Emissions (tons per any consecutive 12-months)
-018	VOC	N/A	21.7
-051	VOC	3.03	36.3

[Rule 62-210.200(PTE), F.A.C.; Permit No(s). AC05-262376 and 0090005-003-AC]

Recordkeeping and Reporting Requirements

B.6. Monthly Recordkeeping Requirements. In order to demonstrate compliance with Specific Conditions **B.1., B.4.**, and **B.5.** , the permittee shall maintain a monthly 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) Facility Name, Facility ID No. (i.e., 0090005);
b) Month and year of record;
c) Consecutive 12-months total of VOC/HAP containing materials (chemicals) usage rates;
d) Consecutive 12-months total of total VOC emissions, total HAP emissions, and single HAP emission rates; and
e) Monthly VOC emission rate for EU No. 051
[Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]

B.7. HAP Emissions Calculation. HAP emissions shall be calculated using the latest published version of appropriate EPA AP42 emission factors, other appropriate emission factors, or material balance.
[Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]

B.8. Supporting Documentation. Supporting documentation such as Material Safety Data Sheets, purchase orders, etc., shall be kept for each chemical and associated products which includes sufficient information to determine usage rates and emissions. These records shall be made available to the Department upon request. The log and documents shall be kept at the facility for at least five (5) years and made available to the Department. **Monthly logs shall be completed by the end of the following month.**
[Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]

B.9. Additional Recordkeeping Requirements: Records specified in Specific Condition No. **B.6.** above, must document the method, calculations, and formulas used in determining the usage rate and the emission rate. All calculations, including those used to derive emissions, must be clearly documented, and may be presented in the form of a template of sample calculations and available for review on site by the Department.
[Rule 62-4.070(3), F.A.C.]

B.10. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Subsection C. The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
-045	CCAFS Abrasive Blasting Yard #2 – Outdoor blasting operation.
-052	CCAFS Abrasive Blasting Booth #1 equipped with baghouse to control emissions and fully enclosed. **(shared with CCAFS Paint Spray Booth #5)**
-064	CCAFS Abrasive Blasting Yard #4–Outdoor blasting operation.

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum facility-wide sand blasting material rate shall not exceed 1,400 tons per any consecutive 12-months.
[Rule 62-210.200, (PTE), F.A.C.; Permit No. 0090005-008-AC]

C.2. Hours of Operation. These emissions units may operate continuously (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C.]

C.3. Unconfined Particulate Matter. No person shall 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, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include, but are not limited to:

a. Abrasive blast media shall be collected at the end of each day's operation; and
b. Make sure equipment is in good working order.

Recordkeeping and Reporting Requirements

C.4. Monthly Recordkeeping Requirements. In order to demonstrate compliance with Specific Condition No. **C.1.**, 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) Facility Name, Facility ID No. (i.e., 0090005);
b) Month and year of record;
c) Monthly total of sand blasting material used; and
d) Consecutive 12-month total of sand blasting material used.

Monthly logs shall be completed by the end of the following month.
[Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]

Subsection D. The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
-058	CCAFS I.C. Engine Driven Chiller (Teogen, Inc., Model No. CH-350) – Unit is used for temperature and humidity control.

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The maximum fuel usage rate is as follows:

EU No.	Consecutive 12 months fuel rate	Fuel Type
-058	28,767,840 scf	Natural Gas

[Rules 62-4.160(2), 62-204.800, 62-210.200(PTE), 62-296.406, F.A.C.; Applicant's request in Title V permit application received July 29, 2011]

D.2. Methods of Operation. The unit is permitted to fire natural gas only.
[Rule 62-213.410, F.A.C.; Permit No. 0090005-008-AC]

D.3. Hours of Operation. This emissions unit may operate continuously (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C.]

D.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements.
[Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

D.5. Visible Emissions. Visible emissions shall not exceed 20% opacity except for one two-minute period per hour during which opacity shall not exceed 40%.
[Rule 62-296.406(1), F.A.C.]

Test Methods and Procedures

D.6. Test Methods. Required tests shall be performed in accordance with the following reference methods:

EPA Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources **The test period shall be a minimum of 30 minutes or the length of the batch/cycle**

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.
[Rules 62-297.401 and 62-297.310, F.A.C.]

D.7. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit.
[Rule 62-297.310, F.A.C.]

D.8. Compliance Tests Prior To Renewal. Compliance tests shall be performed for this emission unit once every 5 years. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Conditions **D.5.**
[Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C.]

Recordkeeping and Reporting Requirements

D.9. Monthly Recordkeeping Requirements. In order to demonstrate compliance with Specific Condition Nos. **D.1. and D.2.,** 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. Facility Name, Facility ID No. (i.e., 0090005);
b. Month and year of record; and
c. Consecutive 12-month total of fuel type and consumption.

Monthly logs shall be completed by the end of the following month.
[Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]

D.10. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Subsection E. The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
-062	CCAFS Facility-wide I. C. Engines and Generators using No. 2 Diesel Fuel.

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The maximum diesel fuel usage shall not exceed 352,000 gallons per any consecutive 12-months.
[Rule 62-210.200 (PTE), F.A.C.; Permit No. 0090005-008-AC]

E.2. Methods of Operation. The engines and generators are permitted to fire no. 2 fuel oil only.
[Rule 62-210.200 (PTE), F.A.C.; Permit No. 0090005-008-AC]

E.3. Hours of Operation. The engines and generators may operate continuously (8,760 hours/year).
[Rule 62-210.200(PTE), F.A.C.]

Recordkeeping and Reporting Requirements

E.4. Monthly Recordkeeping Requirements. In order to demonstrate compliance with Specific Condition No. **E.1. and E.2.,** the permittee shall maintain a log at the facility for a period of at least 5 years from the date the data is recorded. The log, at a minimum, shall contain the following:

Monthly

a. Facility Name, Facility ID No. (i.e., 0090005);
b. Month and year of record; and
c. Consecutive 12-month total of fuel type and consumption.

Monthly logs shall be completed by the end of the following month.
[Rules 62-4.070(3) and 62-213.440(1)(b)2., F.A.C.]

E.5. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Other Requirements

E.6. Federal Regulatory Requirements: The engines and generators are subject to the following federal regulations as indicated in Appendix ICE (please see Appendix ICE): 40 CFR Part 60, Subpart A-General Provisions, 40 CFR Part 60, Subpart IIII- Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 63, Subpart A-General Provisions, and 40 CFR Part 63, Subpart ZZZZ-National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The Regulations 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-please see Appendix ICE, Appendices E, F, G, and H.)

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix ICE, Requirements for Internal Combustion Engines.
Appendix E, 40 CFR Part 60, Subpart A.
Appendix F, 40 CFR Part 60, Subpart IIII.
Appendix G, 40 CFR Part 63, Subpart A.
Appendix H, 40 CFR Part 63, Subpart ZZZZ.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix U, List of Unregulated Emissions Units and/or Activities.