



Florida Department of Environmental Protection

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

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

Electronically Sent- Received Receipt Requested

FINAL 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:
Anthony J. Cotton, Brigadier General, USAF, Commander

Air Permit No. 0090021-009-AC
Permit Expires: 12/30/2012
Site Name : Patrick Air Force Base
(PAFB)
Major Source Air Construction
Project Name: Vapor Recovery
System

This final air construction permit authorizes modification of Emissions Unit No. 032 with the installation of a Stage I Vapor Recovery System and modification of the E-85 storage tank (listed under insignificant emissions units because tank size is less than 25,000 gallons) with the installation of vapor recovery lines. The proposed work will be conducted at the PAFB fuel storage facility (Standard Industrial Classification No. 9711), 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, 538.85 km East, and 3125.26 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



09/28/2011

Caroline D. Shine
District Air Program Administrator
Central District

Effective Date

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 09/28/2011 to the persons listed below.

Brig Gen Anthony J. Cotton, PAFB (**45swcce@patrick.af.mil**)
Ms. Kim K. Scroggs, PAFB (**kim.scroggs@patrick.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

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.



09/28/2011

(Clerk)

(Date)

SECTION 1. GENERAL INFORMATION (FINAL)

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

Project Description and Affected Emission Unit

This project involves the installation of a Stage I Vapor Recovery System for the PAFB Fuels gasoline dispensing operations (EU ID No. 032) including a vapor return line connected between the storage tank and the gasoline dispensing truck. This project also includes the installation of vapor recovery lines for the E-85 storage tank (listed under insignificant emissions units in the facility's Title V air operation permit because tank size is less than 25,000 gallons).

This project will modify the following emissions unit.

Facility ID No. 0090021	
ID No.	Emission Unit Description
032	Two Gasoline Storage Tanks

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

SECTION 1. GENERAL INFORMATION (FINAL)

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 vapor recovery project.

SECTION 2. ADMINISTRATIVE REQUIREMENTS (FINAL)

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: 407-897-2931

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. Common Testing Requirements;
 - e. Appendix E. 40 CFR 63, Subpart A - General Requirements; and
 - f. Appendix F. 40 CFR 63, Subpart CCCCCC- Gasoline Dispensing Facilities.
 - g. Appendix G. California Air Resource Board Vapor Recovery Test Procedure TP-201.1E
 - h. Appendix H. California Air Resource Board Vapor Recovery Test Procedure TP-201.3
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, 62-252, 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.]
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.]

SECTION 2. ADMINISTRATIVE REQUIREMENTS (FINAL)

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 Revision: 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 revision is required for continued operation of the permitted emissions unit(s). The permittee shall apply for a Title V operation permit revision 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 revision, the applicant shall submit the following:
- a. 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/>*);
 - b. a copy of the initial compliance test report(s) required by Specific Condition No. **A.8.**, if not previously submitted; and
 - c. copies of the most recent two months of records/logs specified in Specific Condition No. **A.15.**

The application shall be submitted to the Permitting Authority.

[Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

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

A. EU No. 032 - Two Gasoline Storage Tanks

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
032	<p>These storage tanks have internal identification nos. of 621 and 619. The gasoline stored in these tanks is used for military and government owned and operated vehicles, primarily involving those associated with the 45th Space Wing.</p> <p>The Stage I Vapor Recovery will reduce emissions associated with storage tank working losses. The vapor recovery system does not affect the standing losses from the tank, as it will only provide control during the loading of the tanks.</p> <p>The vapor recovery system includes a combination of 3" and 4" carbon steel pipes manufactured by Wheatland Tube Company. The vapor recovery system will return the displaced vapors to the delivery truck.</p> <p>The vapor recovery system has an estimated 98.7 percent control efficiency (Reference: US EPA AP-42, Section 5.2, Transportation and Marketing of Petroleum Liquids, June 2008).</p>

PERFORMANCE RESTRICTIONS

A.1. Federal Regulatory Requirements: This emission unit is subject to 40 CFR 63, Subpart CCCCCC – Gasoline Dispensing Facilities, which is incorporated and attached as a part of this permit (See Appendix F).
[Rule 62-213, F.A.C.; 40 CFR 63, Subpart CCCCCC]

A.2. Permitted Capacity: The total permitted throughput shall not exceed the following:

Authorized Fuel	Maximum Throughput (million gallons per any consecutive 12 month period)
Gasoline (including ethanol/gasoline blends)	1.0
Diesel/ Biodiesel Fuel	4.0
Jet Fuel	15.5

[Rule 62-210.200, (PTE), F.A.C. and Construction permit 0090021-004-AC]

A.3. Restricted Operation: The hours of operation are not limited (8760 hours per year).
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; Construction Permit 0090021-004-AC]

A.4. Restricted Operation: The permittee must only load gasoline into storage tanks and must utilize submerged filling.
[40CFR63, Subpart CCCCCC §63.11117 & §63.11132 and Rule 62-252.300, F.A.C.]

{Permitting Note: The tanks at PAFB utilize bottom fill which meets the definition of submerged fill.}

A.5. Restricted Operation: The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

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

A. EU No. 032 - Two Gasoline Storage Tanks

- a) Minimize gasoline spills;
- b) Clean up spills as expeditiously as practicable;
- c) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- d) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

[40CFR63, Subpart CCCCCC §63.11116]

A.6. Restricted Operation: The permittee shall utilize Stage I vapor recovery for the transfer of gasoline from gasoline cargo tanks to the gasoline storage tanks. [Rule 62-252.300(2), F.A.C.]

EMISSIONS STANDARDS

A.7. VOC Emissions Limitation: The total permitted VOC emissions from the storage tanks shall not exceed 12.0 tons per any consecutive twelve months, updated monthly.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; Construction permit 0090021-008-AC]

A.8. Visible Emissions (VE) Limitation: No person shall cause, let, permit 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 20 percent opacity.
[Rule 62-296.320(4)(b)1. (General Visible Emission Standard), F.A.C.]

A.9. Unconfined Particulate Matter (PM)Emissions Limitation: In addition to the conditions in Appendix C., Condition No. 9, the following reasonable precautions shall be followed:

- a) Maintenance of paved areas as needed;
- b) Periodic street sweeping;
- c) Enforcement of Base speed limits; and
- d) Regular mowing of grass and care of vegetation.

[Rules 62-4.070(3) and 62-296.320(4)(c), F.A.C.]

A.10 Control Technology Requirements (Rule 62-252.300(3), F.A.C.):

- a) The Stage I vapor recovery system required by this rule section (Rule 62-252.300, F.A.C.) shall conform with the equipment specifications of the U.S. Environmental Protection Agency document, "Design Criteria for Stage I Vapor Control Systems – Gasoline Service Stations," dated November 1975, with the exception of Attachment A, hereby adopted and incorporated by reference.
- b) The Stage I vapor recovery system piping shall include pressure-vacuum vents and be leak-tight.

[Rules 62-252.300 and 62-252.300(3), F.A.C.]

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

A. EU No. 032 - Two Gasoline Storage Tanks

TESTING REQUIREMENTS

A.11. Initial Compliance Tests: The permittee must demonstrate initial compliance by conducting an initial performance test on the vapor balance system as listed below in this condition and as required by §63.11120 of 40 CFR Part 63, Subpart CCCCCC. The initial tests shall be conducted no later than **180 days after initial operation of the unit**.

(a) Each owner or operator, at the time of installation, as specified in §63.11113(e), of a vapor balance system required under §63.11118(b)(1), and every 3 years thereafter, must comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E, – Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see §63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.3, – Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see §63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in §63.7(f).

(iii) Bay Area Air Quality Management District Source Test Procedure ST-30 – Static Pressure Integrity Test – Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994 (incorporated by reference, see §63.14).

(b) Each owner or operator choosing, under the provisions of §63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph §63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-

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

A. EU No. 032 - Two Gasoline Storage Tanks

201.1, – Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see §63.14).

(2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.

(3) You must comply with the testing requirements specified in paragraph (a) of this section.

(c) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (*i.e.*, performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

[Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.; 40 CFR 63, Subpart CCCCC §63.11120(a)(1) and (a)(2), and 40 CFR 63, Subpart A §63.7)]

A.12. Test Requirements: Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit.
[Rule 62-297.310, F.A.C.]

A.13. Test Method(s): Required tests shall be performed in accordance with the following reference method(s).

Method(s)	Description of Method and Comments
California Air Resource Board Vapor Recovery Test Procedure TP-201.1E	Leak Rate and cracking Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see §63.14)
California Air Resource Board Vapor Recovery Test Procedure TP-201.3	Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see §63.14)

The above method(s) are described in Appendix A of 40 CFR 63 and are adopted by reference in Rule 62-204.800, F.A.C. No other method(s) may be used unless prior written approval is received from the Department.

[Rules 62-204.800 and 62-297.100, F.A.C.; and 40 CFR 63, Subpart A]

NOTIFICATION REQUIREMENTS

A.14. Test Notification: The permittee shall notify the Compliance Authority **in writing, at least 60 calendar days prior to the date** on which each formal compliance test is to begin, of the date,

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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 permittee.

[Rules 62-4.070(3) and 62-297.310(7)(a)9., F.A.C.; and 40 CFR 63, Subpart A§63.9(e)]

*{Permitting Note: 40 CFR 63, Subpart CCCCC §63.11124(4) - You must submit a Notification of Performance Test, as specified in §63.9(e), prior to initiating testing required by §63.11120(a) and (b). 40 CFR 63, Subpart A §63.9(e) - Notification of performance test. The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test **at least 60 calendar days** before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under §63.7(c), if requested by the Administrator, and to have an observer present during the test.}*

- A.15. Notification of Operation Commencement:** The permittee shall notify the Compliance Authority **in writing** of the date of commencing operation of the vapor recovery system of EU No. 032, no later than five (5) business days after that date. Commencing operation means setting into operation of any emissions unit for any purpose.
[Rule 62-4.070, F.A.C., and Rule 62-210.200, F.A.C., (Definition of Commence Operation)]

RECORDS AND REPORTS

- A.16. Test Reports:** The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]
- A.16. Monthly Recordkeeping Requirements:** In order to demonstrate compliance with Specific Conditions No. **A.2.** and **A.7.**, 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 shall contain the following:
- Monthly
- a) Date (Month and Year)
 - b) Individual monthly fuel type and throughput for each listed storage tank;
 - c) Consecutive 12 month total of fuel type and throughput for each listed storage tank;
 - d) Consecutive 12 month total of total VOC emissions, total HAP emissions, and single HAP emissions.
- [Rules 62-4.070(3), and 62-213.440(1)(b)2., F.A.C.; FESOP 0090021-005-AF]
- A.17. Additional Recordkeeping Requirements:** Records specified in Specific Condition No. **A.16.** (previous condition) 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.]
- A.18. Supporting Documentation:** Supporting documentation, such as Material Safety Data Sheets, purchase orders, etc., shall be kept which includes sufficient information to determine compliance. The “Tanks Program version 4.0 or higher” or “United States Air Force Air

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Program Information Management System (APIMS)" shall be utilized to calculate VOC emissions from the tanks. The log and documents shall be kept at the facility for at least 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.b., F.A.C.; Construction Permit 0090021-004-AC]

- A.19. Malfunction Reports:** Each owner or operator of an affected source under this subpart (40 CFR 63, Subpart CCCCCC) shall report, **by March 15 of each year**, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11115(a), including actions taken to correct a malfunction. **No report is necessary for a calendar year in which no malfunctions occurred.**

[40 CFR 63, Subpart CCCCCC §63.11126(b)]