TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

U.S. Air Force
119 Alabama Avenue
Tyndall Air Force Base, Florida 32403-5014

Tyndall Air Force Base
Facility ID No. 0050024

PROJECT

Project No. 0050024-015-AC
Application for Minor Source Air Construction Permit
After-the-fact Building 186 paint booth

COUNTY

Bay County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Waste Management/Air Resources Program
Northwest District Office
160 W. Government Street, Suite 308
Pensacola, Florida 32502-5740

November 14, 2014

1. 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); 62-296 (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.

Facility Description and Location

The Tyndall Air Force Base is an existing synthetic minor facility, which is categorized under Standard Industrial Classification Code No. 9711, National Security. The facility is located in Bay County at 119 Alabama Avenue in Tyndall Air Force Base, Florida. The UTM coordinates of the existing facility are Zone 16, 635.6 km East, and 3326.8 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- 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.
- The facility is not 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, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

This permit authorizes adding an additional paint booth to existing emissions unit (EU) 010. The new booth (already constructed) has high efficiency filters (99.83%) for control of particulate matter (PM). There is no VOC (volatile organic compound) control. Adding the new paint booth results in a potential increase of 4.3 tons per year of VOC based on a maximum rate of 1300 gallons of paint per year. This emissions unit is subject to Rule 62-296.320(4)(b)1, F.A.C. - General VE Standard, and Rule 62-296.320(1), F.A.C. - General Pollutant Emission Limiting Standards for VOC Emissions and Organic Solvents Emissions. There is a facility wide limit of 80 tons VOC per year. The facility is a natural minor for PM.

Processing Schedule

September 24, 2014	Received the application for a minor source air pollution construction permit.
September 24, 2014	Requested additional information.
October 22, 2014	Received additional information; application complete.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_X); sulfur dioxide (SO_2); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM_{10}); volatile organic compounds (VOC); lead (Pb); fluorides (Fl); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO_2 and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

<u>PSD Applicability for Project</u>

As provided in the application, the following table summarizes potential emissions and PSD applicability for the project.

Table A. Potential Emissions (Tons/Year) and PSD Applicability

Pollutant (TPY)	Pre-Project Potential Emissions	Post Project Potential Emissions	Total Emissions Change	PSD Major Stationary Source Threshold for Facility Type & Project	Subject to PSD
CO	39.1	39.1	0	250	NO
NO_X	78.1	78.1	0		
PM/PM_{10}	47.9	49.4	1.5		
SO_2	2.8	2.8	0		
VOC	24.6	28.9	4.3		

This facility is not considered a major stationary source for PSD because existing potential emissions do not exceed 250 tons per year of a regulated pollutant. The proposed project itself is not subject to PSD review because the potential emissions increases alone are less than the PSD major stationary source threshold of 250 TPY for this type of facility. Based on these facts, it is the Department's determination that the project is not subject to PSD preconstruction review.

3. APPLICATION REVIEW

Application Fee

AC1F - $250 - source more than 5 tons per year but less than 25 tons per year.

Discussion of Emissions

This facility is a synthetic minor with facility-wide emissions limits of 90 ton per year for carbon monoxide (CO), sulfur dioxide (SO_2) and nitrogen oxides (NO_x); 80 ton per year for volatile organic compounds (VOC); and 8 and 21 tons per year for individual and total hazardous air pollutants (HAP).

Potential emissions from the project based on a usage of 1300 gallons are shown in the following table:

Pollutant (TPY)	Potential Emissions from paint booth (TPY)	Pre-Project Potential Emissions (TPY)	Total Potential Emissions for facility (TPY)
CO	0	39.1	39.1
NO_x	0	78.1	78.1
PM/PM_{10}	1.5	47.9	49.4
SO_2	0	2.8	2.8
VOC	4.3	24.6	28.9
Cumene	0.02		
Chromium Compounds	0.6		
Total HAP	0.6	7.4	8.0

State Requirements

Rule 62-296.320(4)(b)1, F.A.C. - General Visible Emissions Standard, and Rule 62-296.320(1)(a), F.A.C. - General Pollutant Emission Limiting Standards for Volatile Organic Compounds (VOC) Emissions and Organic Solvents Emissions, are applicable.

Federal NSPS Provisions

The boiler servicing paint booths 295-1 and -2 is subject to 40 CFR 60 Subpart Dc (monthly recordkeeping).

Federal NESHAP Provisions

None

Other Draft Permit Requirements

An initial visible emission compliance test is required for the new paint booth in Building 186. The five year permit cycle visible emissions tests are no longer required for the existing paint booths because the booths do not have any unit specific requirements and are subject only to the General Visible Emissions Standard. Recordkeeping is required for each emissions unit to show cumulative compliance with the facility emissions caps.

4. 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. Deborah Moore is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at 850.595.0624 or Deborah.L.Moore@dep.state.fl.us.