Title V Air Operation Permit Revision
Permit No. 0910031-016-AV

APPLICANT

The applicant for this project is United States Air Force. The applicant's responsible official and mailing address are: Ms. Vicki Preacher, Deputy Base Civil Engineer, United States Air Force, 501 DeLeon Street, Eglin Air Force Base, Florida 32542.

FACILITY DESCRIPTION

The applicant operates the Eglin Air Force Base, which is located seven miles northeast of Fort Walton Beach at 592 Range Road on Eglin AFB, Okaloosa County. The facility is a major stationary source of CO and NO_X emissions for Prevention of Significant Deterioration (PSD) and is an area source of Hazardous Air Pollutants (HAP).

Eglin AFB occupies most of the southern half of Okaloosa County and portions of the southern halves of Santa Rosa and Walton Counties. This facility consists of 27 bombing ranges, three active airfields and ten auxiliary airfields within an area of approximately 726 square miles. The main base is located two miles southwest of the twin cities of Valparaiso and Niceville, and seven miles northeast of Fort Walton Beach. The base houses the Air Armament Center under the Air Force Material Command. The Center plans, directs and conducts tests and evaluations of U.S. and allied air armaments, navigation/guidance systems and Command and Control systems. A test wing, an air base wing and an air reserve wing use the air fields and test ranges. Air pollutant emitting activities associated with Eglin AFB result from facilities required for the testing, air operations and training activities such as fuel storage tanks; fuel burning equipment such as boilers, heaters, and emergency generators; and, maintenance requirements such as paint booths. Hurlburt Field is southwest of Eglin Main and is under the Air Force Special Operations Command. Hurlburt Field is not included in this permit.

Eglin AFB operates a perchloroethylene dry cleaning facility, aerospace paint booths (includes outside areas), non-aerospace paint booths, boilers using natural gas, stationary CI and SI RICE engines, a gasoline distribution terminal, gasoline storage tanks, and an air curtain incinerator with a stationary CI RICE engine.

The perchloroethylene dry cleaning operations involve the cleaning of fabrics with non-aqueous organic solvents (perchloroethylene). Operations consist of washing fabrics in solvents, spinning the fabrics to extract the excess solvent, and drying the fabrics by tumbling in a hot air stream and recovery excess solvent. The emissions unit is regulated under 40 CFR 63 Subpart M - National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities; MACT.

Aerospace paint booths are used to provide surface coating (corrosion protection) for aerospace equipment and parts. Since these activities are involved with the maintenance/repair of aerospace vehicles and parts, they are subject to 40 CFR 63 Subpart GG - National Emission Standards for Aerospace Manufacturing and Rework Facilities. However, these maintenance activities are only subject to the hand-wipe cleaning, flush cleaning, and waste storage and handling requirements under the NESHAP. Only one emission unit (EU 011, Bldg 72) is subject to performance testing or design evaluation and continuous monitoring using a portable gas analyzer under 40 CFR 63.751. Emissions controls are a three-stage filter system for particulate control and a non-regenerative carbon adsorption unit for VOC control. The remaining aerospace paint booths are subject to filter efficiency standards established by EPA Method 319. Method 319 filter certifications provided by the manufacturer are maintained at each paint booth.

Non-aerospace paint booths are used to provide surface coating (corrosion protection) for non-aerospace equipment and parts. The booths are equipped with dry particulate filters to control particulate matter from overspray emissions. These emissions units are regulated under Rule 62-296.320(4)(b)1., F.A.C., General

Pollutant Emission Limiting Standards (opacity of less than 20%). Due to the previously permitted auto hobby shop paint booth (EU 025, Bldg. 721) being shut down and dismantled, it has been removed from this permit.

Boilers between 10 and 32 MMBtu/hr heat input provide comfort heating at the Base Hospital (EU 006, Building 2825) and heating for R&D projects at the Climatic Laboratory (EU 007 and 033, Building 438). The amount of particulate and sulfur dioxide emissions from the boilers is limited by the firing of natural gas. These emissions units are regulated under Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with less than 250 MMBtu/hr Heat Input. EU's 006 and 033 are also subject to 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

There are numerous small, unregulated boilers with a total design heat input greater than 250 MMBtu/hr, making the facility a major source for PSD. Any future facility modifications or relaxation of requirements that will increase actual emissions may be subject to Rule 62-212.400, F.A.C.

Stationary reciprocating internal combustion engines are regulated by 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. These diesel-fired engines are primarily used as stationary emergency and non-emergency generators.

Stationary compression ignition internal combustion engines are regulated by 40 CFR 60 Subpart IIII, Standards of Performance - Stationary Compression Ignition Internal Combustion Engines. The diesel-fired engines are primarily used as stationary emergency and non-emergency generators.

Stationary spark ignition internal combustion engines are regulated by 40 CFR 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. These are gasoline fueled lean burn non-emergency engines.

Eglin AFB operates a gasoline distribution terminal with a capacity of 24,900 gallons, subject to 40 CFR 63 Subpart BBBBBB - National Emission Standards for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities.

Eglin AFB operates 13 gasoline storage tanks, ranging from 4,000 to 15,000 gallon capacities, subject to 40 CFR 63 Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities.

Eglin AFB operates an Air Curtain Incinerator (ACI) used to dispose of Celotex Versakor Industrial Fiberboard from munitions testing and an engine to blow air into the firebox. These sources are regulated in accordance with Rule 62-296.401(7), F.A.C., which includes both emissions limits and operational requirements. The ACI is also subject to the specific requirements of 40 CFR 60 Subpart CCCC - Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced after November 30, 1999 or for Which Modification or Reconstruction is Commenced on or after June 21, 2001.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to revise the existing Title V permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Revision received September 26, 2012
Additional Information Request dated November 16, 2012
Additional Information Response received January 8, 2013

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility is not identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a Prevention of Significant Deterioration (PSD)-major stationary source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

CAIR: The facility is not subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

PROJECT REVIEW

This permit incorporates construction permit 0910031-014-AC which added an Air Curtain Incinerator (ACI) and an engine to blow air into the firebox. The ACI is an Air Burners, LLC, S-220, portable self-contained system with fixed refractory walled firebox to dispose of Celotex Versakor Industrial Fiberboard used in munitions tests. The engine is a four cylinder Diesel 59 HP (Kubota V2003-TE internal combustion engine. The engine is not considered a stationary engine because the ACI is regularly moved within the facility.

Other changes incorporated in this revision are:

Organizational changes in commands responsible for different EUs throughout Eglin AFB.

Aerospace Paint Booth, EU 045, was added to the aerospace paint booth subsection of the permit.

Diesel-fired Boilers, EU 046, regulated by 40 CFR 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers, were added to this permit. 40 CFR 63 Subpart JJJJJJ has not been incorporated by reference by the Department. This emissions unit and specific conditions were placed in the permit at the Permittee's request.

Stationary RICE engines, regulated by 40 CFR 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, were placed in 5 categories as follows: Stationary RICE existing before 6-12- 2006 with < 500 bhp, Stationary RICE new after 12-19-2002 with > 500 bhp, Stationary RICE existing before 12-19-2002 with > 500 bhp, Stationary RICE existing before 6-12-2006 with < 500 bhp, and Stationary RICE new before 6-12-2006 with < 500 bhp, as EU's 036, 047, 048, 049, and 050, respectively. The engines from each category were made into a subsection of the permit with applicable specific conditions for each category. The construction or installation date is unknown for a number of the engines so applicant stated they were installed/constructed before the applicability dates in the standards.

Stationary CI ICE engines, regulated by 40 CFR 60 Subpart IIII, Standards of Performance - Stationary Compression Ignition Internal Combustion Engines, were placed in 3 categories as follows: Stationary CI ICE emergency 2007 & later with <10 l/cyl., Stationary CI ICE non-emergency 2007 & later with < 10 L/cyl., and Stationary CI ICE emergency pre-2007 with 10 l/cyl., as EU's 039, 051, and 052, respectively. The engines from each category were made into a subsection of the permit with applicable specific conditions for each category.

Stationary SI ICE engines, EU 040, regulated by 40 CFR 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, were made into a subsection of the permit with applicable specific conditions.

CONCLUSION

This project revises Title V air operation permit No. 0910031-013-AV, which was issued on June 1, 2009. This revision is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.