DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

F325426711

FACILITY: Selfridge Air National Guard Base		**SRN / ID:** F3254
LOCATION: 127th Wing/Environmental Mgmt Office, MOUNT CLEMENS		**DISTRICT:** Southeast Michigan
CITY: MOUNT CLEMENS		**COUNTY:** MACOMB
CONTACT: Mark Paasche , Environmental Engineer		**ACTIVITY DATE:** 07/11/2014
STAFF: Francis Lim	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** Syn Minor Opt Out
SUBJECT: Inspection		
RESOLVED COMPLAINTS:		

On July 11, 2014, Sam Liveson and I conducted an inspection at Selfridge Air National Guard Base (SANGB) located in Harrison Township near Mt. Clemens, Michigan. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Administrative Rules; and the conditions of Permit-To-Install (PTI) No. 523-96A..

Mr. Mark Paasche and Mr. Mo Arif represented Selfridge Air during the inspection.

SANGB is a military installation whose major tenants include the Army, Air Force, Marines, Navy, Coast Guard, and Customs & Border Protection. The base is hosted by the Michigan Air National Guard's 127th Wing.

There is a support unit for each particular aircraft. A support unit may consist of aerospace ground equipment (AGE), emergency engines, and paint & maintenance equipment.

SANGB used to have eight permits for paint spray booths. The permits have been voided. There are now only four paint spray booths on site; only two are currently being used. Two booths (coast guard and civil) are inoperative. The booths are R 287c exempt. One of two operating spray booths (Building 120) was inspected. This booth is used to spray paint aircraft parts. HVLP spray guns are used. Dry filters were in place. Filters are changed when pressure drop goes above 0.2 inch water. Paint gun cleaner tank was covered. I verified that a paint log is kept near the work area. As with any other military installation, every chemical/paint used on site has an assigned number to it. If new paint/chemical is purchased, a number is assigned to it and hazardous contents are identified.

SANGB used to have three permits for the parts washers and degreasers. These cleaners are now exempt under R 281h. Halogenated solvents are not used. Cold cleaners generally use aqueous solvent. But some military specification parts specify solvent usage. Degreasers have either hydraulic covers or mechanically assisted covers.

Selfridge used to have four permitted coal-fired boilers used for space heating. The coal-fired boilers have been removed and replaced by multiple, smaller natural-gas fired heaters.

Facility operates several diesel emergency generators subject to the Area Source RICE MACT. Gas-fired generators have not been used. An emergency diesel generator is located at Building 990. This is necessary to pump storm water offsite when power is not available. The base is close or at lake level. The Navy recently installed a 1000 KW emergency diesel generator. State has no delegated authority to regulate Area Source RICE MACT.

There are six fuel oil storage tanks (two diesel, two Jet A, one gasoline, and one empty). Jet A fuel, with additives is very similar to JP-8. Jet A is commercially available and is cheaper. On June 2014, SANGB informed AQD about the change in jet fuel from JP-8 to Jet A, with additives.

The fuel storage tanks are grandfathered from NSPS Subpart Kb requirements. SANGB is planning to install two additional fuel storage tanks. They are aware that the installation will be subject to Subpart Kb.

The base no longer operates jet engine test cells. The base operates a "Hush House" where the A10 and F24 jet planes are tested. The jet plane is ushered into the building , tail first, where the engine exhaust goes through a binocular shaped receptacle. The exhaust goes through a tunnel that muffles the jet engine noise. Wires are hooked up to the aircraft during the test which could last for 30 minutes up to several days. The Hush House is not considered a stationary source. The Hush House is not used often. There is another Hush House installed but is not used.

Aviation ground equipment (AGE) are aircraft support equipment on wheels (some are motorized) that are equipped with engines fueled by aviation fuel and diesel fuel. Some have turbines that are used to produce high pressure air. AGE engines are used for compressors, hydraulic lifts (to lift bombs) into the aircraft, to produce nitrogen, and supply AC power to the aircraft. The aerospace ground equipment were previously not permitted. After AQD determined that the potential to emit for these ground equipment were significant, these equipment were included in PTI No. 523-96A. AGE consists of all motorized aircraft support equipment, such as electric power generators, compressors, hydraulic test stands, weapon loading units, towing vehicles, supplementary heating, air conditioning, and lighting. The facility has been requesting that the AGE be considered a mobile source. In September 2012, SANGB requested again that AGE be considered a mobile source when determining Title V applicability. The district still considers the AGE as an emission unit and not a mobile source.

Mo Arif mentioned that they are planning a prescribed burn for phragmites (an invasive species), which has gotten out of control. AQD staff requested them to contact MI DNR. Facility is planning to put in a fluorescent bulb crusher. A permit is needed for this.

Records are done through Air Program Information Management (APIM), a program developed by the military for use at military installations.

PTI No. 523-96A

FG-COLDCLEANERS

Special Cond 1.1. VOC limit is 10 tons per year based on a rolling 12-month period. For the period ending in May 2014, VOC emissions were 0.5 tons. See attached records.

Special Cond 1.2. Material usage limit is 3,000 gallons per year based on a rolling 12-month period. For the 12-month period ending in May 2014, solvent usage is 151 gallons. See attached records.

Special Cond 1.3. VOC content of solvent is less than the limit of 6.7 pounds per gallon.
Special Cond 1.4. Rule 707 is complied with.

Special Cond 1.5. Records necessary to show compliance with the VOC emission limit, material usage limit and VOC content limit is kept.

FG-PAINTBOOTHS
Special Cond 1.1. Usage limit is 200 gallons per month per paint spray booth. Booths are seldom used.
Special Cond 2.2. VOC content limit of paint is 6.25 pounds per gallon. Staff did not verify this. Booths are seldom used. For the 12-month period ending in May 2014, VOC emission is 0.7 tons per year. See attached records.
Special Cond 2.3. Paint booth filters are in place.
Special Cond 2.4. Records are kept to show compliance with the usage limit, VOC content limit and HAPs limit (for FG-FACILITY).

FG-NGHEATERS
Special Cond 3.1. Natural gas usage limit for the heaters is 520 MM cubic ft. per 12-month rolling time period. For the 12-month period ending in May 2014, natural gas usage is 144.7 MM cubic ft. See attached records.

Special Cond 3.2. SANGB keeps records of natural gas usage based on a rolling 12-month time period.

FG-DIESELGENS
Special Cond 4.1. Annual power output limit for the diesel engines is 450,000 kilowatt hours per 12-month rolling time period. For the 12-month period ending in May 2014, power output for the diesel engines is 168,589 kilowatt hours. Please see attached records.

Special Cond 4.2. SANGB keep records to demonstrate diesel engine power output.

FG-GASGENS
Special Cond 5.1.Annual power output limit for the gas generator engines is 75,000 kilowatt hours per 12-month rolling time period. Gas generators have not been used.

Special Cond 5.2. SANGB keep records to demonstrate gas generator engine power output.

FG-AGE
Special Cond 6.1. Diesel fuel or JP-8 fuel usage limit for all turbine engines is 150,000 gallons per 12-month rolling time period. For the 12-month period ending in May 2014, fuel usage is 1969 gallons. See attached records.

Special Cond 6.2 Diesel fuel or JP-8 fuel usage limit for all reciprocating engines is 75,000 gallons per 12-moth rolling time period. For the period ending May 2014, fuel usage is 14, 024 gallons. See attached records.

Special Cond 6.3 SANGB keep records to dempnstrate fuel usage limits compliance.

FG-TESTCELLS
The engine test cells have not been operating.

FG-FUELSTORAGE
Special Cond 8.1. Throughput limit for the storage tanks is 55,000,000 gallons per 12-month rolling time period. Throughput records for the period ending June 2014 shows compliance

with the limit. See attached records.

Special Cond 8.2. SANGB keeps records to demonstrate fuel usage limits.

FG-FACILITY

Special Cond 9.1. Facility wide limits, based on a rolling 12-month time period are: Individual HAPs, 9 tons per year; aggregate HAPs, 22.5 tons per year; NOx, 83.9 tons per year; CO, 80.6 tons per year; SO2; 4.2 tons per year; PM10, 19.5 tons per year; and VOC, 44.2 tons per year.

The following annual emissions (based on a rolling 12-month period ending in May 2014) were reported by the facility: Individual HAPS, less than 1 ton per year; aggregate HAPs, less than 1 ton per year; NOx, 15.5 tons per year; CO, 7.9 tons per year; SO2, less than 1 ton per year; PM10, 1.0 ton per year; and VOC 2.6 tons per year. See attached records

Special Cond 9.2 HAPs emissions records are kept.

Special Cond 9.3 NOx, CO, SO2, PM10, and VOC emissions records are kept.

NAME _____ DATE 09-26-14 SUPERVISOR CJE