

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

M365332016

FACILITY: V A MEDICAL CENTER		SRN / ID: M3653
LOCATION: 2215 FULLER RD, ANN ARBOR		DISTRICT: Jackson
CITY: ANN ARBOR		COUNTY: WASHTENAW
CONTACT: Yvette Harden , GEMS Coordinator		ACTIVITY DATE: 10/22/2015
STAFF: Zachary Durham	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled, unannounced inspection of equipment outlined in PTIs for boilers, emergency generators, and EtO sterilizers.		
RESOLVED COMPLAINTS:		

Contacts

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Purpose

I arrived at the VA Hospital at about 11:00am on October 22, 2015 to conduct an unannounced, scheduled inspection of federal and State of Michigan air pollution rules and regulations as outlined in their Permit to Install (PTI). I met with Joseph Jurasek and Yvette Harden, who provided me with a tour of the facilities and all requested records.

Background

The Ann Arbor VA is classified as a minor source of air pollutants and holds several PTIs for equipment that have installed on site, which include boilers, an emergency generator, and ethylene oxide sterilization units. These PTIs are numbered 315-98, 36-11, and 182-98, respectively. They also have active PTI 971-89A for an ethylene oxide sterilization unit, which they requested I void because that equipment is covered under PTI 182-98.

This site was last inspected on 12/20/2013 by Glen Erickson and was found to in full compliance. At that time, the VA was in the process of installing permit exempt equipment consisting of 5 individual gas-fired turbines rated at 2.28 MMBtu/hr. These units are permit exempt per Rule 282(b)(i) and not subject to Part 60, Subpart GG because they are individually below threshold levels of heat input capacity of 50MMBtu/hr and 10 MMBtu/hr, respectively. The project has since been completed and the cogeneration system installed by Capstone Turbine Corporation is operating. As indicated by Joseph Jurasek, the cogen project supplies about one third of the facilities power needs, which equates to about 1 MW of electrical generation.

The 1500 kW emergency generator is subject to NSPS, Part 60, Subpart IIII for emergency diesel generators. A series of five 750 kW generators are not subject to Subpart IIII, but are subject to MACT standards outlined in Part 63, Subpart ZZZZ for emergency compression ignition (CI) reciprocating internal combustion engines (RICE).

Compliance Evaluation

PTI 971-89A

I will be recommending that this PTI be voided because the equipment is covered under PTI 182-98

PTI 182-98

This covers the ethylene oxide (EtO) sterilization units. I received a copy of the most recent months usage, which reflects 23 cycles being having been run between the four different units. The units use 100% EtO and are equipped with manufacturer control equipment rated at 99.9% efficient. September 2015 record log shows a total of 5.06 lbs of EtO used in the machine and 0.005 lbs of EtO emissions for the month. These both meet the 6.5 lbs/day and 99.9% efficiency of this permit.

PTI 315-98

This PTI includes the emissions from one 500 HP boiler and three 700 HP boilers. These are gas-fired boilers with backup fuel oil firing capacity. Fuel oil is used sparingly, which is reflected in both annual MAERS reporting and fuel use logs. Additionally, the Michigan Air Emissions Reporting System (MAERS) report for reporting year 2014 shows compliance with permitted emission quantities. Records for natural gas usage are included for the last 12 months. Based on these records, I have determined that these units meet the definition of gas fired boilers and are not subject to the 40 CFR 63 Subpart 6J for the boiler NESHAP.

PTI 36-11

The 1500 kW emergency diesel generator is covered under this permit. According to documents provided, the hours of operation have not come close to exceeding the limits of 100 hr/month for maintenance or 500 hr/year on a 12-month rolling calendar. These same records show that routine maintenance is being performed. Fuel for this unit, ultralow sulfur diesel, is still supplied by Atlas Oil as indicated by Joseph.

Summary

Upon arriving at the facility, I parked in the structure located on site. I made my way to the information desk and requested asked for Joseph Jurasek so that I could be given a facility tour and inspect the equipment subject to Michigan Air Pollution Control rules. He met me at the desk and was also accompanied by Yvette Harden, whom will be the main contact for correspondence going forward.

I requested that we sit briefly to conduct a pre-inspection meeting and we made our way upstairs to sit in a conference room with a member of the hospitals upper level management team. I distributed several of our Environmental Inspection brochures containing the boiler MACT informational card as well as my contact information. During this meeting I outlined the parts of the facility and which records I wanted to see. After they understood my reasons for visiting, Joseph, Yvette and I continued on the tour of the hospital campus.

I first observed the 1500 kW emergency generator along with the five smaller 750 kW generators. Records indicate their limited use and maintenance required by the Maximum Achievable Control Technology (MACT) for the National Emission Standard for Hazardous Air Pollutants (NESHAP) in Part 63, Subpart ZZZZ. Table 2(d) of this section outlines these operation and maintenance requirements, which includes oil changes every 500 hours, inspect air cleaner every 1000 hours, and inspect belts and hoses every 500 hours or annually, whichever comes first. There does not appear to be subsequent performance testing required for area sources for this NESHAP

Next, I viewed the four boilers in the Energy Center. They were only running boiler #1 while I was there. The display panel showed several of the current units operations; gas flow = 6.62 kscfh, steam flow = 7.25 klbs/hr, and CO = 4ppm. The cogeneration unit consisting of the five microturbines was operating as well with a gas feed of 4130 scfh.

From there we went back into the hospital to where the set of four ethylene oxide sterilization units were located. I was told that these units were operated roughly once per day as averaged over a calendar month. The most recent monthly log indicated a total of 23 cycles among all of the units.

This brought a close to the tour portion of my inspection, and we proceeded with a wrap up meeting. During this time we went through each permit they currently have active and the conditions which they agreed upon to show compliance. They provided me with records for the various fuels they use, maintenance logs, and equipment operation data. It was determined that PTI 971-89A has become unnecessary and they asked that I void this document.

Compliance Status and Recommendations

After thorough review of documents provided by the VA and the most recent MAERS report, I have determined this facility to be in compliance with their air use permits.

I will recommend that PTI 971-89A is voided because the equipment is covered under a more current permit.

Additionally, pending any changes in their classification as a minor source or new regulations on equipment currently installed or future projects, I recommend this facility to maintain its current scheduled inspection routine.

NAME Jack Dunham

DATE 11/5/2015

SUPERVISOR 