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

G525232691

FACILITY: Oakland Co. Service Center - Central Steam Plant		**SRN / ID:** G5252
LOCATION: 1200 North Telegraph Building 22 East, PONTIAC		**DISTRICT:** Southeast Michigan
CITY: PONTIAC		**COUNTY:** OAKLAND
CONTACT: Joseph Murphy , Facilities Manager		**ACTIVITY DATE:** 12/15/2015
STAFF: Robert Elmouchi	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

On December 15, 2015, I conducted a scheduled inspection of the Oakland County Department of Facilities Central Power House. The facility is located in Building No. 22 at 1200 North Telegraph Road, Pontiac, Michigan. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules, and Air Use Permit to Install (PTI) 150-03.

NOTE: For the purpose of GPS navigation, an effective address is 2219 County Center Drive East, Pontiac, Michigan, which will place you within a few hundred feet of the facility.

I entered the site, presented photo identification and explained the purpose of the inspection to Mr. Joseph M. Murphy, Facilities Manager. Also present were Mr. Hank Roehl, Chief of Boiler Area; and Mr. Dan Cole, Boiler Mechanic. I gave Mr. Murphy a copy of the Environmental Inspections: Rights and Responsibilities brochure.

The Oakland County Central Power House is located in Pontiac within the Oakland County Service Center East Campus. It consists of four (4) boilers that produce steam for heating and cooling county buildings in the surrounding county service center. The facility runs 24 hours a day, 7 days a week.

Three of the four boilers (Nos. 1 through 3) are drum water tube boilers, manufactured by Erie City Boilers, which are rated at 30,000 lbs steam per hour and can be fired on either natural gas or No. 6 fuel oil (bunker oil). Each of the three boilers has a heat input rating of 36 MMBTU/hour each. The facility has the option to burn No. 6 fuel oil or natural gas. The fuel use records indicate that only natural gas has been used to fuel the boilers since February 2014. The primary reason for firing only with natural gas is because of the relative low cost of natural gas.

The fourth boiler (No. 4) is a water tube keystone boiler, which can only burn natural gas. This boiler is manufactured by Zurn (with a Coen burner) rated at 60,000 lbs. steam per hour and has a heat input rating of 72 MMBTU/hour.

The boilers at this facility are not subject to 40 CFR Part 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, because this facility is not a major source of hazardous air pollutants (HAPs).

During this inspection, only boiler number 3 was operating. I did not detect any foul odors and

I observed zero visible emissions at the stack exit.

There are three (3) storage tanks in the facility basement with a total capacity of 90,000 gallons of No. 6 Fuel oil. Per PTI special condition 1.3, the sulfur weight percent of all fuel oil is limited to 1.5% or less. The certificate of analysis records provided by Mr. Murphy indicate that the weight percent of sulfur in the fuel deliveries were about 0.5% or less, which is about one-third of the permitted limit. Hard copies of fuel oil shipment analysis receipts are attached to this report. A sample of the Number 6 fuel oil was collected in my presence from tank number 3 by Mr. Dan Cole. The sample will be sent for laboratory analysis to determine weight percent of sulfur.

Number 6 fuel oil is also known as bunker oil. No. 6 fuel oil is a very thick fuel oil. It takes about 2 to 3 days of warming to reduce the viscosity enough for it to be injected into a fuel burner. The sulfur weight percent limit of the No.6 fuel oil is a limiting factor in firing the boilers with this fuel because low sulfur bunker oil is not readily available in this area due to limited demand. Transportation fees may also increase the cost of this fuel. The last shipment of fuel oil was received on November 25, 2013. The PTI limits the use of fuel oil to 757,000 gallons per 12-month rolling time period and there is no use limit on natural gas. The records provided indicate that the permittee has maintained compliance with the fuel oil use limit.

I observed the following panel display readings for the storage tanks (Note: a new fluid level monitoring system display had been installed since my previous inspection of 2013.)
Tank No.1: 10,252 gallons
Tank No.2: 25,418 gallons
Tank No.3: 25,164 gallons.

The monthly and 12-month rolling SO2 calculations indicate that the annual emissions since 2011 have been less than 2.0 tons per year, which is in compliance with the permit limit of 89.4 tons per year. I ran a detailed analysis of the 12-month rolling SO2 emission records and it appears that the permittee's method of calculation (e.g. rounding) may result in reporting slightly higher SO2 emissions than actually occurred. Therefore, the next inspection should concentrate on reviewing the permittee's method of calculating emissions.

Conclusion
The Oakland County Department of Facilities Central Power House appears to be in compliance with the evaluated conditions of PTI No. 150-03.

NAME [signature] DATE 12/22/2015 SUPERVISOR CJE