

M4752
Manilla

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

M475243681

FACILITY: JOHN D DINGELL VA MEDICAL CENTER		SRN / ID: M4752
LOCATION: 4646 JOHN R STREET, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Jeffrey Edge , Industrial Hygienist		ACTIVITY DATE: 03/16/2018
STAFF: Jorge Acevedo	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 2018 Inspection		
RESOLVED COMPLAINTS:		

COMPANY NAME : John D. Dingell VA Medical Center

FACILITY ADDRESS : 4646 John R. Street, Detroit, MI 48201

STATE REGISTRAT. NUMBER : M4752

SIC CODE : 8062

EPA SOURCE CLASS : B

EPA POLLUTANT CLASS : O

LEVEL OF INSPECTION : PCE

DATE OF INSPECTION : 3/16/18

TIME OF INSPECTION : 10:30 AM

DATE OF REPORT : 3/16/18

REASON FOR INSPECTION : Scheduled Inspection.

INSPECTED BY : Jorge Acevedo

PERSONNEL PRESENT : Annette Tremonti, GEMS Coordinator
: Jeff Edge

FACILITY PHONE NUMBER : 313-576-4246

FACILITY FAX NUMBER : 313-576-1990

FACILITY BACKGROUND:

The John D. Dingell VA Medical Center, from the description on its website, "is a 108-bed full service medical center that provides primary, secondary and tertiary care. The medical center provides acute medical, surgical, psychiatric, neurological, and dermatological inpatient care." The hospital is located in downtown Detroit and constructed in 1995 and became fully operational in June 1996. The facility houses boilers, emergency generators, and ethylene oxide sterilizers, which are of interest to the Air Quality Division (AQD).

INSPECTION NARRATIVE:

On March 16, 2018, I conducted a scheduled inspection of the John D. Dingell VA Medical Center (VAMC). I arrived at the VAMC at 10:30 AM and met with Annette Tremonti. We went into Ms. Tremonti's office and Jeff Edge, her supervisor, met us in her office. I explained the purpose of the inspection and told both Ms. Tremonti and Mr. Edge which equipment that I wanted to inspect. We spoke about changes since the last inspection in 2014. Ms. Tremonti explained that the facility removed their Ethylene Oxide sterilizers and replaced them with equipment that uses Hydrogen Peroxide. The facility sent a letter to the MDEQ Detroit office in 2017 and I acknowledged that we received it. The rest of the equipment had stayed the same. Ms. Tremonti provided me records of natural gas usage for the boilers and fuel oil shipments. Fuel oil is rarely used but is used in the boilers every three months and in the generators as necessary to meet hospital standards.

Generators use fuel oil and the facility performs a two hour load bank test every year and a four hour load bank test every three years. Our next discussion was about storage tanks onsite. Ms. Tremonti explained that the facility has 6 tanks- five of the tanks are for the boilers and one tank is for the grounds crew equipment. They are all underground storage tanks. Three tanks are 28,000 gallon, two tanks are 30,000 gallons and the tank for the grounds crew equipment is 1000 gallons.

After our discussion, we went out into the facility. Our first stop was to observe the sterilizers. Ms. Tremonti showed me room which previously housed the ethylene oxide sterilizers. The equipment was gone and the duct work to the abators had been patched up.

Our next stop was the Energy Center. I observed four boilers; two were running at the time of the inspection.. This is the information gathered on the boilers:

Boiler No. 1 – Cleaver Brooks
Natural gas-fired, fuel oil backup
Manufacture Date- 1-6-93
29.3 MMBtu/hr rated heat input capacity
Model:CB200-700, Serial No.: L-91024

Boiler No. 2 – Cleaver Brooks
Natural gas-fired, fuel oil backup
Manufacture Date- 12-26-92
29.3 MMBtu/hr rated heat input capacity
Model:CB200-700, Serial No.: L-91023

Boiler No. 3 – Cleaver Brooks
Natural gas-fired, fuel oil backup
Manufacture Date- 12-22-92
29.3 MMBtu/hr rated heat input capacity
Model:CB200-700, Serial No.: L-91022

Boiler No. 4 – Cleaver Brooks
Natural gas-fired, fuel oil backup
Manufacture Date- 1-6-93
29.3 MMBtu/hr rated heat input capacity
Model:CB200-700, Serial No.: L-91025.

Our next stop was the North Generator House. There are eight emergency generators for the VAMC. There are two generator houses, each with four generators. The eight generators are identical in make and model. They are Caterpillar, Model SR4, 600 KW generators. They were installed in 1995/1996. Each has a capacity to use 372 gallons/ day of diesel fuel. I observed four generators in standby mode. All were the identical model, Caterpillar Model SR-4. Each has an output of 600 KW. This is the information gathered for the four generators:

Generator 1:- Caterpillar
Diesel fuel fired
600 KW output
Model SR-4, Serial No. 6MA01077
Hours Fired- 140.8

Generator 2:- Caterpillar
Diesel fuel fired
600 KW output
Model SR-4, Serial No. 6MA01075
Hours Fired- 145.9

Generator 3:- Caterpillar
Diesel fuel fired
600 KW output
Model SR-4, Serial No. 6MA01078
Hours Fired- 138.1

Generator 4:- Caterpillar
Diesel fuel fired
600 KW output
Model SR-4, Serial No. 6MA01076

Hours Fired- 228.7

We then went to the South Generator House. We observed the same configuration of generators that we saw at the North Generator House. This is the information gathered for the four generators:

Generator 1:- Caterpillar
Diesel fuel fired
600 KW output
Model SR-4, Serial No. 6MA01082
Hours Fired- 164.6

Generator 2:- Caterpillar
Diesel fuel fired
600 KW output
Model SR-4, Serial No. 6MA01081
Hours Fired- 150.0

Generator 3:- Caterpillar
Diesel fuel fired
600 KW output
Model SR-4, Serial No. 6MA01079
Hours Fired- 152.1

Generator 4:- Caterpillar
Diesel fuel fired
600 KW output
Model SR-4, Serial No. 6MA01080
Hours Fired- 162.8

I left the facility at 12:3PM.

COMPLAINT/COMPLIANCE HISTORY:

There have been no complaints against the VAMC. VAMC has been in compliance during last two inspections.

OUTSTANDING CONSENT ORDERS:

None

OUTSTANDING LOVs

None

OPERATING SCHEDULE/PRODUCTION RATE:

The VAMC operates 24 hours a day, seven days a week.

APPLICABLE RULES/PERMIT CONDITIONS:

The VAMC was issued the following permits:

295-07- Issued October 29, 2007.

270-07- Issued August 09, 2007, updated on March 23, 2012 and August 4, 2013

The following conditions apply to: FG-BOILERS

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Applicable Requirement(s)
1.1	NO _x	FG-BOILERS	51.7 tpy	12-month rolling time period as determined at the end of each calendar month	R336.1205

Compliance- Records were received. Emissions for the boilers have been in 9-10 TPY range over the last year.

Visible Emission Limits

1.2 Visible emissions from FG-BOILERS, when firing fuel oil, shall not exceed 20 percent opacity, as specified in the federal Standards of Performance for New Stationary Sources, 40 CFR 60.43c(c). [40 CFR Part 60 Subparts A & Dc]

Compliance- Two boilers were operating at the time of my inspection and it was firing on natural gas. The boilers fire on diesel fuel approximately once a month.

Material Usage Limits

1.3 The permittee shall combust only natural gas or distillate oil in FG_BOILERS. (R 336.1201(3), R 336.1205, 40 CFR Part 60 Subpart Dc)

Compliance- Boilers only operate on natural gas and diesel fuel.

1.4 The sulfur content of the fuel oil burned in FG-BOILERS shall not exceed 0.30 percent by weight. [R 336.1205(3), R 336.1402, 40 CFR 60.42c(d), Wayne County Air Pollution Control Regulation Section VI, Section 6.3]

Compliance- Fuel shipment record and analysis was received. Analysis shows that Sulfur content was .0007% by weight.

1.5 The FG-BOILERS throughput shall not exceed 90,000 gallons per year of distillate oil. (R 336.1205)

Compliance- Records show that less than 90,000 gallons of diesel fuel was used.

Process/Operational Limits

1.6 The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Dc, as they apply to FGBOILERS. [40 CFR Part 60 Subparts A & Dc]

Compliance- It appears that all provisions were met. Since natural gas is the main fuel source, the majority of compliance depends on keeping records.

Monitoring

1.7 The permittee shall monitor, in a satisfactory manner, the natural gas and fuel oil usage in FG-BOILERS on a monthly basis. [R 336.1225, R 336.1702(a)]

Compliance. Records are kept.

1.8 The permittee shall demonstrate compliance with the SO₂ standard at 40 CFR 60.42c(d) by obtaining a fuel supplier certification for each delivery of distillate oil. The certification shall include the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the following definition of distillate oil. Distillate oil means fuel oil that complies with the specifications for fuel oils numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils." Also, AQD requires the inclusion of the following information on the certification:

Flash point in °F or °C

Gravity at 60/60F (specific gravity or degrees API)

Sulfur content (% by weight)

Higher heating value (Btu/lb or Btu/gallon)

[R 336.1205(3), 40 CFR 60.41c, 60.42c(d), 60.46c(h), and 60.48c(f)(1)]

Compliance- Fuel Supplier Certification was provided by VAMC

Recordkeeping/Reporting/Notification

1.9 The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NO_x emission calculation records for FG-BOILERS. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. [R336.1205, 40 CFR 52.21 (c) & (d)]

Compliance- Records are kept in a satisfactory manner.

1.10 The permittee shall keep, in a satisfactory manner, copies of the fuel supplier certifications for

FG-BOILERS, as required by SC 1.8. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. (R 336.1205, 40 CFR 60.48c(i))

Compliance- Fuel supplier certifications were provided.

1.11 The permittee shall submit notification to the AQD District Supervisor the following information as required by 40 CFR 60.7:

The name and address of the owner or operator;

The physical location of the affected source;

The date of construction and actual startup

The design heat input capacity and identification of fuels to be combusted;

The annual capacity factor based on anticipated firing of each individual fuel.

[40 CFR 60.48c(a)]

Compliance- Notification was sent on August 10, 2007

1.12 The permittee shall keep, in a satisfactory manner, monthly natural gas and fuel oil usage records for FG-BOILERS. Records of fuel oil usage may be estimated monthly and corrected as actual average monthly usage at the time of receipt of an oil delivery. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R 336.1225, R 336.1702 (a), 40 CFR 60.48c(g)]

Compliance- Records are kept in a satisfactory manner.

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
1.13	SV-BS-1	51	160	R 336.1225, R 336.1901
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

Undetermined- Stack was not viewed at the time of the inspection.

The following conditions apply to: FG-GENERATORS

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement(s)
2.1	NO _x	FG-GENERATORS	20.5 tpy	12-month rolling time period as determined at the end of each calendar month	SC 1.4, 1.5, & 1.7	R336.1205
The NO _x limit is based on an emission factor of 604 lb NO _x per 1,000 gallons of fuel oil.						

Compliance- Records are kept and were submitted at the time of the inspection.

Material Usage Limits

2.2 The permittee shall combust only distillate oil in FG-GENERATORS. (R 336.1201(3), R 336.1205)

Compliance- Generators combust diesel fuel.

2.3 The sulfur content of the fuel oil burned in FG-GENERATORS shall not exceed 0.30 percent by weight. [R 336.1205(3), R 336.1402, Wayne County Air Pollution Control Regulation Section VI, Section 6.3]

Compliance- Fuel Certification shows that diesel fuel has a sulfur content of less than .30percent by weight.

Process/Operational Limits

2.4 The maximum operating time for each of the eight generators included in FG-GENERATORS shall not exceed 500 hours per 12 month rolling time period. [R 336.1201(3), R 336.1205]

Compliance- Check of the hour log on the generators and review of records showed that each generator averaged less than 30 hours each.

Monitoring

2.5 The permittee shall monitor, in a satisfactory manner, the hours of operation of each of the eight generators included in FG-GENERATORS on a monthly basis. [R 336.1225, R 336.1702(a)]

Compliance- Log of hours is kept on the generators.

2.6 The permittee shall obtain a fuel supplier certification for each delivery of distillate oil. The certification shall include the following information:

Flash point in °F or °C

Gravity at 60/60F (specific gravity or degrees API)

Sulfur content (% by weight)

Higher heating value (Btu/lb or Btu/gallon)

[R 336.1205(3)]

Compliance- Fuel supplier certifications were provided.

Recordkeeping/Reporting/Notification

2.7 The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NO_x emission calculation records for FG-BOILERS. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. [R336.1205, 40 CFR 52.21 (c) & (d)]

Compliance- Nox emission calculations are kept and were submitted at the time of the inspection.

2.8 The permittee shall keep, in a satisfactory manner, copies of the fuel supplier certifications for FG-GENERATORS, as required by SC 2.6. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. (R 336.1205, 40 CFR 60.48c(i))

Compliance- Fuel Certification was supplied.

2.9 The permittee shall keep, in a satisfactory manner, monthly records of the hours of operation for each of the eight generators included in FG-GENERATORS All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R 336.1225, R 336.1702 (a),]

Compliance- Hours are monitored on each generator.

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
2.10a	SV-GS1	12	46	R 336.1225, R 336.1901
2.10b	SV-GS2	12	46	R 336.1225, R 336.1901
2.10c	SV-GS3	12	46	R 336.1225, R 336.1901
2.10d	SV-GS4	12	46	R 336.1225, R 336.1901
2.10e	SV-GS5	12	23	R 336.1225, R 336.1901
2.10f	SV-GS6	12	23	R 336.1225, R 336.1901
2.10g	SV-GS7	12	23	R 336.1225, R 336.1901
2.10h	SV-GS8	12	23	R 336.1225, R 336.1901
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

Undetermined- Stacks were not observed at the time of the inspection.

The following conditions apply to: FGFACILITY

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
3.1	NO _x	FGFACILITY	89.5 tpy	12-month rolling time period as determined at the end of each calendar month	See below, and SC 2.2	R336.1205(3)
<p>The permittee shall calculate NO_x emissions for all boilers in FGFACILITY based on fuel usage data per special conditions 1.7 and 1.12, and the worst-case emission factor from testing per GC 13, if required by the Department, and the emission factors below.</p> <p>The permittee shall calculate NO_x emissions for all emergency generators in FGFACILITY based operating data per special conditions 2.5, 2.7, and 2.9, and the worst-case emission factor from testing per GC 13, if required by the Department and an emission factor of 604 lb NO_x per 1,000 gallons of fuel oil.</p>						
Natural Gas Emission Factor for Boilers NO _x = 0.100 lb/MMBtu			Fuel Oil Emission Factor for Boilers NO _x = 0.020 lb/gallon fuel oil			

Compliance-Records show that facility NOx emissions are less than 89.5TPY

Recordkeeping / Reporting / Notification

3.2 The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NOx emission records, as required by SC 3.1, for FGFACILITY. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205(1)(a) & (3)]
Compliance- Records are kept and were provided at the time of the inspection.

3.3 The permittee shall keep monthly and previous 12-month natural gas and fuel oil usage records for FGFACILITY, in a format acceptable to the AQD District Supervisor, indicating the total amount of natural gas used, in cubic feet, and fuel oil used, in gallons, on a 12-month rolling time period basis. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205(1)(a) & (3)]
Compliance- Records are kept and were provided at the time of the inspection.

3.4 The permittee shall keep, in a satisfactory manner, a written log of the monthly hours of operation of each emergency generator at FGFACILITY. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. [R336.1205(1)(a) & (3)]
Compliance- Hours of operation are logged on each generator.

PTI -270-07- Approved August 9, 2007 and updated March 23, 2012 and August 14, 2013

Ethylene Sterilizers were removed in 2017. AQD verified during the inspection that the equipment was removed. AQD will void out the existing permit.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

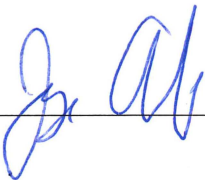
N/A All of the VAMC's property is paved.

MAERS REPORT REVIEW

Pollutant	2017 Emissions(TPY)
CO	10.5
NOx	13.2
PM	.93
Sox	.15
VOC	.67

FINAL COMPLIANCE DETERMINATION:

It appears that the facility is in compliance with all applicable regulations.

NAME 

DATE 4-20-18

SUPERVISOR W. M.

