

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

E680746143

FACILITY: SPECTRUM HEALTH BLODGETT CAMPUS		SRN / ID: E6807
LOCATION: 1840 WEALTHY ST SE, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Tom Koprowski , Plant Operations		ACTIVITY DATE: 09/19/2018
STAFF: David Morgan	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT:		
RESOLVED COMPLAINTS:		

At 2:00 P.M. on September 19, 2018, Air Quality Division (AQD) staff Dave Morgan conducted a scheduled inspection at Spectrum Health Blodgett Hospital located at 1840 Wealthy Street in East Grand Rapids. The purpose of the inspection was to determine the facility's compliance with state and federal air pollution regulations as well as Permit to Install (PTI) No. 51-11. Accompanying AQD staff on the inspection was Tom Koprowski, Supervisor of Plant Operations.

FACILITY DESCRIPTION

Spectrum Health Blodgett Hospital is a full service hospital facility. The primary air pollution sources are from utility equipment including eight steam boilers, three emergency electric generators, and two underground fuel storage tanks. The generators are covered by PTI No. 51-11 as well as 40 CFR Part 60, Subpart IIII.

The facility has actual and potential emissions that would make it a true minor source.

COMPLIANCE EVALUATION

Steam Boilers:

There are eight identical boilers with low-NOx burners. Each boiler is dual-fueled, natural gas and diesel, and are rated at 5.978 mmBtu/hour. Each boiler was installed under Michigan Air Pollution Control Rule 282(2)(b) which exempts diesel fuel burning equipment from air use permitting provided the heat input capacity is less than 20 mmBtu/hour and a sulfur content less than 0.40%. The units are not subject to 40 CFR Part 60, Subpart Dc because they are less than 10 mmBtu/hour in size. During the inspection three of the eight boilers were operating, on natural gas.

Previous AQD staff determined that the actual emissions from all eight boilers (considered the "project" at time of installation) were expected to be well below the "significance" levels established in Rule 278. In addition, although the worst case potential to emit is above the significance threshold for NOx, the equipment is not expected to operate at 100% utilization rates. Therefore, the use of a permit exemption was deemed appropriate. Actual emissions over the past two years indicate that emissions are still well below the Rule 278 significance levels.

It is noted that the boilers are considered "gas-fired" with respect to 40 CFR Part 63, Subpart DDDDD as the fuel oil use is limited to emergency operations. As a result of being considered "gas-fired", the boilers are not subject to 40 CFR Part 63, Subpart DDDDD.

Emergency Generators (PTI No. 51-11):

The facility has three, 1 megawatt (MW), Kohler emergency generators permitted under PTI No. 51-11. Each generator has a diesel-fired, reciprocating internal combustion engine with a heat input capacity about 10.43 mmBtu/hour. Engines 1 and 2 were installed in early 2006 and are subject to "Tier I" emission standards; Engine 3 was installed in 2010 and is subject to "Tier II" emissions certification requirements as well as 40 CFR Part 60, Subpart IIII. Each engine has a U.S.EPA Certificate of Conformity documenting expected emissions. Note, Engine 3 is also subject to 40 CFR Part 63, Subpart ZZZZ as an area source; Subpart ZZZZ area source requirements are subsequently covered by compliance with Subpart IIII.

All three engines are required to use ultra-low sulfur diesel fuel with a sulfur content of less than 15ppm. Mr. Koprowski provided fuel sample data from June 9, 2017 (analyzed by ET Products LLC) which showed the sulfur content of the fuel from the west diesel fuel storage tank at 466 ppm and from the east tank at 495 ppm. Due to the fuel sample results, the company had all fuel pumped out of the storage tanks, tanks inspected and all fuel replaced in September 2017. According to company records, 20,000 gallons of ultra low sulfur diesel fuel with a sulfur content of less than 15ppm was delivered by Crystal Flash (documentation attached). Since the sample results show that prior to September 2017, the engines operated using diesel fuel with a sulfur content greater than 15ppm which is above the 15ppm limit in the permit, a violation of PTI No. 51-11, Special Condition Nos. II.1, for

each engine, will be cited. Violation Notice will be sent Spectrum Health documenting this exceedance.

It is recognized that Spectrum rectified the fuel problem in September 2017 by replacing all the old fuel in the storage tanks with new ultra low sulfur diesel. Although a Violation Notice will be sent to document the exceedance, no further compliance plan will be requested by AQD.

The company is also required to have non-resettable hours meters which was verified by AQD staff. None of the engines were operating at the time of the inspection. From September 2017 through August 2018, the engines had the following operating hours:

	12-month rolling (hours)	Total cumulative run time since installation
Engine 1	49	444.2
Engine 2	49	445.0
Engine 3	49	320.7
Total	148 (< 1,500 hour per 12-month rolling limit)	

Fuel Storage Tanks:

As mentioned, there are two 20,000 gallon, underground storage tanks for diesel fuel. These tanks are exempt from air use permitting under Rule 284(2)(d).

Miscellaneous:

Although PTI No. 51-11 references the source as a synthetic minor source for NOx, the potential to emit for the emergency use engines can be based on 500 hours of annual use per U.S.EPA White Paper Guidance, rather than 8,760 hours of operation. Therefore regardless of the PTI condition, the 500 hour restriction is already implied by the emergency-use nature of the engines and so the potential to emit is already restricted to minor source levels without the permit. Because of this, this source can be considered a true minor source.

SUMMARY

Spectrum Health Blodgett will be sent a Violation Notice for the violations cited above. Records obtained during the inspection are attached.

NAME *Raff*

DATE *9/28/18*

SUPERVISOR *[Signature]*