

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

M273845405

|   |                               |                           |
|---|-------------------------------|---------------------------|
| FACILITY: Spectrum Health Big Rapids Hospital   |                               | SRN / ID: M2738           |
| LOCATION: 605 Oak Street, BIG RAPIDS  |                               | DISTRICT: Grand Rapids    |
| CITY: BIG RAPIDS  |                               | COUNTY: MECOSTA           |
| CONTACT: Gene Magoon, Facility Maintenance Manager  |                               | ACTIVITY DATE: 07/31/2018 |
| STAFF: Chris Robinson   | COMPLIANCE STATUS: Compliance | SOURCE CLASS: MINOR       |
| SUBJECT: FY '18 on-site inspection to determine the facility's compliance with PTI no. 336-76, General PTI no. 9-09 and applicable air quality rules and regulations. |                               |                           |
| RESOLVED COMPLAINTS:  |                               |                           |

On July 30, 2018, AQD staff, Chris Robinson (CR) conducted a scheduled unannounced on-site, inspection of Spectrum Health's Big Rapids Hospital (Spectrum) located at 605 Oak Street in Mecosta County, Michigan to determine compliance with Permit to Install (PTI) no. 336-76, General PTI no. 9-09 and other applicable air rules and regulations. CR met with Mr. Brian Greenman, Biomedical Technician and Mr. Gene Magoon, Facilities/Maintenance Manager. AQD credentials were provided and CR announced intent to conduct an inspection of the facility. No odors or visible emissions were observed at any time during this inspection.

### Compliance Evaluation

Spectrum currently operates the following equipment: one (1) hydrogen peroxide sterilizer, six (6) boilers and two (2) emergency generators.

The facility had operated an Ethylene Oxide Sterilizer (EtO) under General PTI no. 9-09. However, upon arrival Mr. Greenman indicated that the sterilizers, located in the Main Hospital Building, were removed in 2016 and replaced with a hydrogen peroxide sterilizer. Hydrogen peroxide sterilizers are exempt from Rule 201 permitting requirements under Rule 281(2)(i) for "Sterilization equipment processing mercury-free materials at medical and pharmaceutical facilities using steam, **hydrogen peroxide**, peracetic acid, or a combination thereof". There are no other EtOs located on this campus, so a request to void General PTI no. 9-09 has been submitted.

**Two (2) Johnston Boilers** located in the Main hospital building, dated 1959 with heat ratings of 1,775,000 Btu's each and natural gas fired with diesel fuel backup capabilities. These units are old enough to be considered grandfathered from Michigan's Part 2 rules and New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart Dc and also too small (<10 MMBtu/hr) to be regulated by NSPS Subpart Dc.

**One (1) Johnston Boiler** located in the main hospital building, dated 1976 with a heat rating of 6 MMBtu's and natural gas fired with diesel fuel backup capability. Too small to be regulated by NSPS Subpart Dc. Although this unit appears exempt under Rule 282(2)(b)(ii), it is covered under PTI no. 336-78 which has the following requirements:

- *Visible emissions are limited to an opacity of less than or equal to 20% except as specified in Rule 336.41.*

No visible emissions were observed.

- *Within 3 days of each occurrence of oil firing in excess of 12 consecutive hours, Applicant shall notify the District Engineer, in writing, of: the reason for firing oil; length of time oil was burned; the amount of oil burned, and the sulfur content of the oil burned.*

Per Mr. Magoon, the boilers are tested monthly running on diesel fuel for approximately four (4) hours annually.

- *The District Engineer shall be notified within 10 days of any change in the natural gas supply from a firm to an interruptible rate. Such notification shall include a written program for increasing the stack height or implementing other measures to prevent significant deterioration of air quality.*

Per Mr. Magoon, this has not occurred.

**One (1) Johnston Boiler** located in the Main hospital building, dated 1994 with a heat rating of 6.28 MMBtu's and natural gas fired with diesel fuel backup capability. Too small to be regulated by NSPS Subpart Dc and exempt under Rule 282(2)(b)(ii).

**Two RBI water heaters** located in the Medical Art building installed in ~1998 with heat ratings of 1.8 MMBtu's/hr and natural gas-fired only. Too small to be regulated by NSPS Subpart Dc and exempt from Rule 201 permitting requirements under Rule 282(2)(b)(ii).

All the boilers located in the main hospital building have diesel fuel backup capabilities. Per Mr. Magoon, other than for emergencies the boilers are operated for approximately four (4) hours per year on diesel fuel for testing. NESHAP Subpart JJJJJ does not apply to natural gas fired boilers. The definition of a gas fired boiler per 63.11237 is as follows:

*Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.*

These boilers appear to be operated in a manner consistent with this definition; therefore, Spectrum does not appear to be subject to NESHAP Subpart JJJJJ requirements.

Spectrum operates one diesel fuel Caterpillar Emergency generator in the Main hospital building and one (1) natural gas-fired Generac emergency generator in the Medical Arts building. Both emergency generators were installed prior to 2005 making them too old to be subject to NSPS 40 CFR Part 60 Subpart IIII for Compression Ignition Internal Combustion Engines, NSPS 40 CFR Part 60 Subpart JJJJ for Spark Ignition Internal Combustion Engines, and National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines. Also exempt from Rule 201 permitting requirements under Rule 285(2)(g) for internal combustion engines with a maximum heat rating of less than 10 MMBtu's/hr.

#### **Compliance Determination**

Based on the observations made at the time of this inspection, Spectrum appears to be in compliance with General PTI no. 9-09 and applicable air rules and regulations.

NAME



DATE

8/2/2018

SUPERVISOR

