

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

M354242374

FACILITY: Holland Hospital		SRN / ID: M3542
LOCATION: 602 Michigan Ave., HOLLAND		DISTRICT: Grand Rapids
CITY: HOLLAND		COUNTY: OTTAWA
CONTACT: Josh Bauman , Facility Manager		ACTIVITY DATE: 11/02/2017
STAFF: Tyler Salamasick	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Minor source inspection FY 18.		
RESOLVED COMPLAINTS:		

### Background

Holland Hospital SRN: M3542 is a medical treatment facility. The Hospital is located at 602 Michigan Avenue, Holland, Michigan. Holland Hospital is located in a primarily residential area with the nearest residential structures approximately 150 feet away from the facility. The facility was inspected on 11/02/2017 by Tyler Salamasick, Environmental Quality Analyst of the Michigan Department of Environmental Quality, Air Quality Division. The intent of the inspection was to determine the facility's compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, Michigan's Air Pollution Control Rules and PTI No. 98-14. Holland Hospital is a minor source of nitrogen oxides (NO<sub>x</sub>). The facility's primary source of air emissions is from the three permitted boilers. The three boilers are permitted under PTI No. 98-14 (the permit). Holland Hospital had a general permit PTI No. 337-99 for an ethylene oxide sterilizer between 1999 and 2007. This process did not appear to be installed during my inspection.

### Inspection

Site arrival was at 8:00 am, 11/02/17. Upon meeting, I presented my State of Michigan identification card, informed the facility representative of the intent of my inspection and was permitted onto the site. I met with Josh Bauman, Director of Facility Services and Mile Biles, Manager of Building Engineering. Mike showed me the facility after my introductory meeting. The primary areas of interest were the maintenance areas and the boiler room. We did not evaluate every floor or room of the hospital because the majority of the facility is designated for patient care or support, which is not relevant to significant sources of air contaminants. While we were in the boiler room, I checked the monitoring equipment, the name plates and serial numbers and reviewed some of the facility's records as required by PTI No. 337-99. I collected some of the hand-written records and Mike later provided me with copies of the electronic records.

### PTI No. 337-99

#### FGBOILERS

Holland Hospital is permitted for three boilers with a rated heat input of 13.8 MMBTU/hr, that primarily fire natural gas with the ability to fire No. 2 fuel oil. While inspecting the boiler plates I observed that the boilers have a heat input of 16.75 MMBTU/hr. This is above the rating the permit was evaluated for. On 11/16/2017 I spoke with Josh Bauman and discussed the discrepancy with him. He informed me that the facility would immediately begin the proper process to correct the issue by speaking with the MDEQ permit section and providing the corrected paperwork.

FGBOILERS have a NO<sub>x</sub> emission limit of 0.04 lb/MMBTU. Mike provided me with a low NO<sub>x</sub> burner demonstration burner that indicated the NO<sub>x</sub> at its highest concentration was 30 ppm corrected to 3% O<sub>2</sub> dry. This equates to 0.036 lbs/MMBTU NO<sub>x</sub>. This is below the 0.04 lb/MMBTU limit as defined by the permit. Based on the information provided Holland Hospital appears to comply with this

condition of PTI No. 337-99.

FGBOILERS have material limits that restrict which fuels can be used and the sulfur content of the fuel. The permittee only burns natural gas and No. 2 Fuel oil in FGBOILERS. I observed the natural gas line as well as well as the attached meter. I did not observe any other fuels on site that appeared to be used to fire the boilers. The sulfur content of all No. 2 Fuel Oil burned in FGBOILERS is limited to 0.5 percent by weight. Mike provide me with a fuel that indicated the No. 2 fuel had a sulfur content of 15ppm. This equates to 0.0015% which is below the 0.5% limit.

FGBOILERS is limited to not burn more than 3,000 gallons of No. 2 Fuel Oil in FGBOILERS per 12-month rolling time period. The provided records indicated that the facility used approximately 30 gallons of fuel in 2016 and 13 gallons in 2017. The provided forms indicate the starting fuel level and the end fuel level. I informed Mike that these records should be modified to include the calculated usage as well as the rolling 12 month totals.

The permittee is limited to burning No. 2 Fuel oil during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Mike indicated that they had only burned fuel oil to test the boilers. The records indicate this and the fuel usage appears to support this statement.

The permit restricts the facility to not operate more than two boilers at one time in FGBOILERS. Holland Hospital was only operating two boilers at the time of my inspection.

FGBOILERS has design and equipment parameters that require the facility to monitor fuel usage. The permittee is required to install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the natural gas use for FGBOILERS on a monthly basis. I observed the fuel line gauge for natural gas. I also observed records for natural gas usage and No. 2 fuel oil usage.

The design and equipment parameters of PTI 98-14 also requires the facility have and maintain, in a satisfactory manner, a fuel tank liquid level gauge for each tank storing No. 2 Fuel Oil used in FGBOILERS. I did not observe the gauge, but as stated above I did observe the records generated from the fuel level readings.

FGBOILERS has a record retention requirement of five years. I requested records from the past two years. Holland Hospital appears to be complying with this requirement of the permit.

Holland Hospital is required to keep, in a manner satisfactory to the District Supervisor, monthly and 12-month rolling time period fuel use records for FGBOILERS. The records must indicate the total amount of each fuel used in FGBOILERS. The records appear to indicate the fuel usage in the boilers and comply with the record keeping requirements.

The record keeping requirements also require that Holland Hospital keep a current listing from the manufacturer of the chemical composition of the No. 2 Fuel Oil, including the weight percent of sulfur. The fuel recipe appears to comply with this condition.

The permittee is required to comply with all applicable requirements of a state or federal plan implementing the provision of 40 CFR, Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (NSPS). The standard requires that the facility comply with fuel sulfur limits. The NSPS requires the facility have an oil sulfur content less

than 0.5% by weight. As mentioned previously in this report, Holland Hospital provided low sulfur (15ppm/ 0.0015%) receipts that show compliance with this NSPS requirement. Holland Hospital is not required to perform emission monitoring for sulfur dioxide due to their low fuel sulfur content. Reporting and recordkeeping requirements of the NSPS requires that Holland Hospital notify the Administrator (US EPA or and authorized representative) with details of the equipment and the installation. The complete list of required information is listed in the NSPS under §60.48c. Previously, on 1/23/2015 AQD staff April Lazzaro had requested that Josh Bauman submit a signed NSPS Dc Initial Notification form. The AQD Grand Rapids District office does not have a copy of this form. On 11/17/17 I requested that the facility complete the form and resubmit it with the corrected information.

Holland Hospital's boilers maybe subject to NESHAP Subpart DDDDD- National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The MDEQ does not have delegated authority for area source standard DDDDD. Although the MDEQ does not have delegated authority over the subpart, all federal regulations still apply.

Holland Hospital also has three emergency generators. The generators are 650 kw, 420 kw and 500 kw. These emergency generators appear to meet permit exemption R 336.1285(2)(g) for internal combustion engines that have less than 10,000,000 Btu/ hour maximum heat input. The generators may be subject to area source standards 40 CFR Part 60 Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and/or 40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. The MDEQ does not have delegated authority for these area source standards.

#### Conclusion

Holland Hospital is in the process of correcting their previous permit application. Holland Hospital appears to be in compliance with all other aspects of the permit that were evaluated. It appears that Holland Hospital is in compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, Michigan's Air Pollution Control Rules and PTI No. 98-14.

NAME



DATE

1/2/18

SUPERVISOR

