

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

F837544760

<b>FACILITY:</b> Mercy Health Hackley Campus		<b>SRN / ID:</b> F8375
<b>LOCATION:</b> 1700 CLINTON ST, MUSKEGON		<b>DISTRICT:</b> Grand Rapids
<b>CITY:</b> MUSKEGON		<b>COUNTY:</b> MUSKEGON
<b>CONTACT:</b> Jerry Booth , OCE Leader		<b>ACTIVITY DATE:</b> 06/01/2018
<b>STAFF:</b> Chris Robinson	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MINOR
<b>SUBJECT:</b> FY '18 on-site inspection to determine the facility's compliance with applicable air quality rules and regulations.		
<b>RESOLVED COMPLAINTS:</b>		

AQD staff, Chris Robinson (CR) conducted a scheduled on-site, inspection of Mercy Health's Hackley Campus (Hackley) on June 1, 2018, to determine compliance with applicable air rules and regulations. The Hackley campus is located at 1700 Clinton Street in Muskegon, Michigan. CR met with Mr. Jerry Booth, OCE Leader and Mr. Jeff Peterman, Plant Operations, at approximately 12:30 presenting proper AQD credentials and announced intent to conduct an inspection of the facility.

**Facility Description**

Mercy Health Hospital, Hackley campus, operated equipment in the past under several Permits to Install (PTIs). All PTIs have been voided either because the equipment was removed, such as the incinerators and ethylene sterilizers or is now considered exempt from permitting requirements, such as five (5) emergency generators and five (5) steam boilers. No odors or visible emissions were observed during this inspection.

**Compliance Evaluation**

**Commercial Sterilizers**

Hackley has two (2) existing non-ethylene oxide sterilizers which appear to be exempt from permitting 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". Therefore, Hackley does not appear to be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR Part 63 Subpart O for Commercial Sterilizers.

**Boilers**

Hackley operates five (5) boilers, three identical Burnham boilers and two Johnson boilers. All of which are natural gas-fired only. The three (3) burnham boilers have a gas input of 16,738 MBH which calculates to a minimum heat input of approximately 16.738 MMBtus/hr., assuming 1 MBH=1,000 MMBtus/hr.

These boilers appear to be exempt from permitting requirements under Rule 282(2)(b)(i) for fuel burning equipment used for indirect heating with a rated capacity of not more than 50 MMBtus/hr. They appear to be subject to New Source Performance Standard (NSPS) Subpart Dc because each boiler has a rated capacity of greater than 10 MMBtu/hr and were installed after June 9, 1989. NSPS Subpart Dc subject facilities are required to annually report emissions to Michigan's Air Emission Reporting System (MAERS) and submit an Initial Notification. Hackley currently does not report to MAERS nor has an initial notification been submitted to the AQD. CR informed Mr. Booth of these requirements and Hackley will submit an initial notification to the AQD and begin reporting emissions in 2019.

Based on the nameplate of the two smaller Johnson boilers, they were installed in 1981. Therefore, not subject to NSPS Subpart Dc because they were installed prior to June 9, 1989.

NESHAP Subpart JJJJJJ does not apply to natural gas fired boilers. Therefore, Hackley is not subject to these standards.

**Emergency Generators**

ID	Model	kw	HP	Installation Date
HBC Generator	3408	500	--	Prior to 7/11/05
South Generator	3456	570	764	Prior to 7/11/05
Hackley Behavioral Health (HBH) Generator	D100-6	100	156.9	2008
Emergency Room (ER) Generator	C15	568	762	2017
North Generator	D348	620	890	Prior to 7/11/05

Hackley operates five (5) Caterpillar emergency generators which appear to be exempt from permitting requirements under Rule 285(2)(g) for internal combustion engines with a maximum heat rating of less than 10 MMBtu's/hr.

1hp = 0.7457 kW = 2,544 Btu/hr  
1 MMBtu/hr = 393.1 hp = 293 kW

HBH Generator: 156.9 HP x 2,544 Btu/hr = ~399,154 Btus/hr = **0.399154 MMBtus/hr**  
ER Generator: 762 HP x 2,544 Btu/hr = ~1,938,528 Btus/hr = **1.9 MMBtus/hr**

The HBH and ER emergency generators, both installed after 6/12/2006, appear to be subject to the NESHAP (40 CFR Part 63 Subpart ZZZZ) for "Stationary Reciprocating Internal Combustion Engines" (RICE MACT) which requires compliance with the NSPS (40 CFR Part 60 Subpart IIII) for "Stationary Compression Ignition Internal Combustion Engines". NSPS Subpart IIII, requires emergency generators, installed after 4/1/2006 with a displacement of less than 30L/cylinder, to meet NOx + NMHC,CO and PM emission standards either by testing or being EPA "Certified". Based on the spec sheets for these two generators, displacement is less than 30L/cylinder. Mr. Booth provided Certificates of Conformity and manufacturer specification sheets, which are attached. A maximum fuel sulfur content requirement of 1,000 ppm must also be met. Mr. Booth indicated that the fuel provider is the same company they use for the Sherman Boulevard facility, which was recently inspected. During that inspection Mr. Booth provided an SDS for Ultra Low Sulfur Diesel (ULSD) fuel, which is attached, from their supplier (WESCO). ULSD contains a maximum sulfur content of 15ppm. Mr. Peterman indicated that fuel deliveries are twice per year. The HBC, South and North generators were all installed prior to 7/11/2005, therefore not subject to NSPS Subpart IIII.

#### **Compliance Determination**

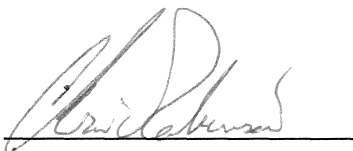
Based on the observations made at the time of this inspection and a subsequent review of equipment specifications, Hackley appears to be in compliance with applicable air rules and regulations. The facility will be submitting an NSPS Subpart Dc Initial Notification for the three (3) subject boilers as well as begin reporting required emissions to MEARS in 2019.

#### Attachments

Diesel Fuel Safety Data Sheet

Emergency Generator Manufacturer Spec Sheets and Certificates of Conformity

NAME



DATE

6/18/2018

SUPERVISOR

