

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

U21240505973273

FACILITY: OSF Healthcare		SRN / ID: U212405059
LOCATION: 3401 Ludington Street, Escanaba		DISTRICT: Marquette
CITY: Escanaba		COUNTY: DELTA
CONTACT: Kevin Madalinski , Facility Planning and Operations		ACTIVITY DATE: 08/02/2024
STAFF: Drew Yesmunt	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Self-Initiated Inspection FY24		
RESOLVED COMPLAINTS:		

Facility: OSF HealthCare (SRN: U212405059)

Location: 3401 Ludington Ave, Escanaba, Delta County, MI

Contact(s): Kevin Madalinski, Facility Planning and Operations

Regulatory Authority

Under the Authority of Section 5526 of Part 55 of NREPA, the Department of Environment, Great Lakes, and Energy may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.

Facility Description

OSF HealthCare is a health care network based in Peoria, IL, that operates numerous hospitals, urgent care centers, and nursing colleges throughout Illinois and Michigan. The network operates a hospital located approximately one mile west of Escanaba, MI. The hospital is an unregistered facility and is not subject to any permits but operates two boilers subject to Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

Emissions

Pollutants emitted from the combustion of natural gas-fired boilers includes nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOCs), particulate matter (PM), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and trace amounts of sulfur dioxide (SO₂). Higher temperatures of burning and longer residence time results in higher NO_x emissions. CO and VOC emissions are directly related to combustion efficiency. Higher combustion temperatures, longer residence times, and well mixing of fuel and combustion air results in greater combustion efficiency and lower emissions of CO and VOCs. Emissions of sulfur oxides are low since processed natural gas contains a very low sulfur content. PM emissions are also low since natural gas is a gaseous fuel. Nitrous oxide and methane emissions are related to the combustion temperature and amount of excess oxygen.

Compliance History

The facility has not received a violation notice in the past five years. The facility has not been previously inspected.

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Inspection

On August 2, 2024, AQD staff (Drew Yesmunt) conducted a self-initiated inspection of OSF HealthCare in Escanaba, MI. AQD staff arrived at the facility and met with Kevin Madalinski, Facility Planning and Operations Manager. It was explained that the purpose of the inspection was to ensure compliance with all applicable air pollution control rules and federal regulations and determine if any equipment on-site was subject to Rule 201 permitting requirements. A tour of the facility was then provided.

The facility operates two Burnham commercial boilers capable of burning natural gas and fuel oil as backup. The facility explained that the boilers are used for central heating of the hospital, and only one boiler is fired at a time. Observing each boiler's name plate, both boilers have a maximum rated heat input capacity of 12.5 MMBtu/hr for both natural gas and no. 2 fuel oil. No other emission units were observed onsite.

Following the tour, AQD staff had a discussion with the facility about what was observed during the tour and Rule 201 permitting requirements. AQD staff stated that the boilers appeared to be exempt from Rule 201 under Rule 282(2)(b)(i) and (ii), but records denoting the sulfur content of the fuel oil would need to be provided to demonstrate compliance with the exemption. Fuel records showed that the sulfur content of the most recent fuel oil shipment was 0.0015% by weight, under the 0.4% limit.

Following the inspection, AQD staff conducted a Rule 278 analysis to confirm the boilers do not exceed the significance levels in Rule 119 for any pollutant emitted. The table below shows the combined potential to emit (PTE) of the two boilers for each fuel combusted using AP-42 emission factors.

Pollutant	Significance Level (TPY)	PTE, Natural gas (TPY)	PTE, Fuel oil (TPY)
CO	100	9.02	3.91
NOx	40	10.74	15.64

SO2	40	-	0.17
PM	25	-	7.19

From the analysis, it appears that the boilers are able to use Rule 282(2)(b)(i) and (ii) for exemption from Rule 201 permitting requirements.

Compliance

Based on this inspection and the analysis performed, OSF HealthCare appears to be in compliance with all applicable air pollution control rules. It was conveyed to the facility that no violations were observed during the inspection.

NAME 

DATE 9-5-2024

SUPERVISOR 