

EnviroSolutions, Incorporated

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June 24, 2022

Sent via email and UPS

Mr. Mark Dziadosz Senior Environmental Quality Analyst EGLE- Air Quality Division 27700 Donald Court Warren, MI 48092-2793 (586) 854-1611 dziadoszm@michigan.gov

SUBJECT: Response to Violation Notice (June 8, 2022)

McLaren Oakland Hospital, 50 North Perry Street, Pontiac, MI 48342

SRN: M1968, Oakland County

Dear Mr. Dziadosz.

On behalf of McLaren Oakland Hospital (McLaren), EnviroSolutions, Inc. (EnviroSolutions) has prepared this response to the Violation Notice (Notice) for the above-referenced facility, dated June 8, 2022. McLaren retained EnviroSolutions to review the Notice and subsequently assist McLaren in preventing future violations. As requested in the Notice, following is a summary of relevant background information and an itemized response to the violations identified in the Notice.

Background

McLaren has three boilers, #1, #2, and #3. Each boiler is rated at 21 million British thermal units per hour (MMBtu/hr) and are fueled by natural gas (primary) and No. 2 fuel oil (back-up). These three boilers are permitted by Permit to Install (PTI) #45-98. McLaren also has three emergency generators at the facility which are exempt from PTI requirements. The Notice addressed the boilers only.

The Notice identifies three violations and an additional comment which each apply to Boilers 1, 2, and 3. For the purposes of this response, the violations and comment are numbered 1 through 4 below.

- Violation #1: Special Condition 19 The facility has not completed visible emission (VE) observation during yearly firing of fuel oil required by 40 CFR 60.43c(c) & (d).
- Violation #2: Special Condition 15 The facility did not provide a daily record of No. 2 fuel oil burned.
- Violation #3: Special Condition 19 Natural gas usage was not kept in an excel spreadsheet as requested in a Violation Notice dated October 28, 2011.
- 4) Comment #4: The fuel supplier certification required by 40 CFR 60.48c(e)(11) will now be required to be submitted. This is not being stated as a violation since the previous inspector indicated having a Material Safety Data Sheet (MSDS) onsite was sufficient for compliance.

The Notice requested a written response to include, for each violation:

- the dates the violation occurred;
- an explanation of the causes and duration of the violation;
- whether the violation is ongoing;
- a summary of the actions that have been taken and are proposed to be taken to correct the violation and the dates by which these actions will take place; and
- · what steps are being taken to prevent a recurrence.

These elements are discussed below for each violation.

Violation #1

Special Condition 19 – The facility has not completed visible emission (VE) observation during yearly firing of fuel oil required by 40 CFR 60.43c(c) & (d).

The three boilers at McLaren are each rated with a heat input capacity of 21 MMBtu/hr. The VE requirement cited above applies to boilers with a heat input capacity of 30 MMBtu/hr or greater. Accordingly, this citation is not applicable to the boilers at McLaren.

With respect to 40 CFR Subpart A 60.2 Definitions, the definition of "Affected facility" means, with reference to a stationary source, <u>any apparatus</u> to which a standard is applicable. Additionally, 40 CFR 60.40c Applicability and delegation of authority, states: (a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies <u>is each steam generating unit</u> for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

The citation 40 CFR 60.43c(c) reads as follows: "On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph (c)."

The boilers are tested annually for short durations, typically less than 10 hours per year. EnviroSolutions understands that in good faith effort, McLaren has requested their boiler testing company, DJ Conley Associates, Inc. (DJ Conley), complete a VE observation during the next testing event while operating on fuel oil. DJ Conley has committed to completing this VE observation and documenting whether any visible emissions are or are not observed. However, 40 CFR 60.43c(c) and (d) do not apply to the boilers installed at the McLaren facility.

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Violation #2

Special Condition 15 - The facility did not provide a daily record of No. 2 fuel oil burned.

Based on available records, the facility did not operate or test the three boilers on No. 2 fuel oil in 2017, 2018, or 2019. In December 2020, records indicate McLaren contracted DJ Conley to test Boiler #1 and Boiler #3 using No. 2 fuel oil for 6 hours each. In January 2021, records indicate McLaren contracted DJ Conley to test Boiler #2 using No. 2 fuel oil for 8 hours. In December 2021, each of the three boilers were tested using No. 2 fuel oil for 2 hours each. Aside from these testing events, the boilers have not operated on No. 2 fuel oil since at least 2017.

EnviroSolutions understands the boilers are not equipped with flow indicators for No. 2 fuel oil usage. EnviroSolutions also understands that during each test, the boilers are not operated at 100% capacity. During each boiler test event, DJ Conley has recorded the hours operated using No. 2 fuel oil on field forms and provided the forms to McLaren. Given the hours recorded onto field forms, EnviroSolutions conservatively assumed the maximum No. 2 fuel oil usage rate of 149.5 gallons per hour (per manufacturer specifications) when estimating annual emissions associated with the boilers No. 2 fuel usage in the Michigan Air Emissions Reporting System (MAERS) submission for 2020 and 2021.

In order to bolster the recordkeeping process and to meet the daily recording requirement for No. 2 fuel oil burned in the boilers, McLaren has initiated a new procedure within the Facilities department. A new spreadsheet has been created in order to maintain a daily record of the hours operated using No. 2 fuel oil in each boiler. McLaren initiated this new procedure immediately after receipt of the Notice. As of June 24, 2022, the boilers have not operated on No. 2 fuel oil in 2022. The new spreadsheet has recorded zero hours of operation using No. 2 fuel oil since the spreadsheet was created on June 6, 2022. A copy of the spreadsheet is attached.

Note that if a natural gas outage occurs, the boilers will begin operating on No. 2 fuel oil until natural gas service is restored. In this scenario, the McLaren Facilities department will maintain the daily record of hours operated using No. 2 fuel oil in the boilers. EnviroSolutions will continue to use the hours of operation using No. 2 fuel oil, along with the maximum No. 2 fuel oil usage rate, in order to estimate annual emissions and for MAERS reporting.

Violation #3

Special Condition 19 – Natural gas usage was not kept in an excel spreadsheet as requested in a Violation Notice dated October 28, 2011.

EnviroSolutions understands McLaren maintains a record of the natural gas usage in the boilers via the facility accounting department. At the time of the inspection on March 17, 2022, McLaren had a recordkeeping workbook that was current through December 2021. EnviroSolutions is uncertain if EGLE AQD viewed this recordkeeping workbook at the time of the inspection.



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It is important to note the boilers have total sulfur dioxide emission limits of 0.5 lbs/MMBtu heat input, 31.5 lbs/hr, and 87.7 tons/year. Since at least 2016, McLaren has emitted less than 0.04 tons/year (equivalent to less than 80 lbs/year) of sulfur dioxide from natural gas emissions. The limited hours the boilers were tested on No. 2 fuel oil in 2020 and 2021 had negligible sulfur dioxide emissions as well, since the total facility emissions were also less than 0.04 tons/year (equivalent to less than 80 lbs/year) of sulfur dioxide.

In order to bolster the recordkeeping process and to meet the monthly recordkeeping requirement, the McLaren Facilities department has communicated with the accounting department to forward the monthly natural gas usage once a bill is received from the service provider. Upon receipt of the monthly natural gas usage, the McLaren Facilities department is entering and will continue to enter the usage into the existing recordkeeping workbook. The recordkeeping workbook is set-up to automatically calculate emissions each time new data is entered.

Comment #4

The fuel supplier certification required by 40 CFR 60.48c(e)(11) will now be required to be submitted. This is not being stated as a violation since the previous inspector indicated having a Material Safety Data Sheet (MSDS) onsite was sufficient for compliance.

EnviroSolutions understands McLaren has maintained the MSDS (now called Safety Data Sheet (SDS)) in the facility files for the No. 2 fuel oil burned in the boilers. Based on a phone discussion with McLaren, EGLE, and EnviroSolutions on June 17, 2022, EGLE communicated that fuel supplier certifications regarding ultra low sulfur content can be submitted to EGLE via email on a semi-annual basis. In accordance with 40 CFR 60.48c(f), the fuel supplier certification shall include the following information:

- (1) For distillate oil:
 - (i) The name of the oil supplier
 - (ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 60.41c, and
 - (iii) The sulfur content or maximum sulfur content of the oil.

McLaren will begin submitting these fuel supplier certifications to EGLE on a semi-annual basis. Please confirm by email to whom at EGLE the fuel supplier certifications should be provided. McLaren also understands that a copy of the most recent fuel certification must be submitted to EGLE even if no deliveries of No. 2 fuel oil were received since the prior submittal.

Summary

In order to address the violations and comment described above, McLaren will complete the following:

- Request DJ Conley complete a VE observation of the boiler emissions during the next testing event and will record whether visible emissions were present/absent. McLaren will forward the results of the VE observation to EGLE upon completion.
- Maintain the new spreadsheet with a daily record of hours the boilers are operated using No. 2 fuel oil.



- 3) Maintain the spreadsheet on a monthly basis by recording the monthly natural gas usage from the boilers, which will be obtained from the accounting department.
- 4) Submit fuel supplier certifications semi-annually to EGLE.

Thank you for the opportunity to reply to the concerns raised in the June 8, 2022 Notice. Please feel free to contact me via email (gkernosek@envirosolutionsinc.net) or telephone at (734) 641-2700 if you have any questions.

Sincerely,

EnviroSolutions, Inc.

Gregory D. Kernosek, P.E.

Principal Engineer

Enclosure

Cc: Mr. Steve Castor, McLaren



Daily Fuel Oil Usage

Boiler #1				Boiler #2			Boiler #3		
Date	Yes	No	Hours	Yes	No	Hours	Yes	No	Hours
6.6.55		V	0		/	0			0
1.12		~	0		/	0		~	0
6.8.22		\	0		1	0		V	0
6-9-22		7	0		~	0		1	0
610.22			0		V	0		V	٥
6-11-62			0		V	0		V	0
6-12-22		_	0			0		~	0
6-13-22		V	0		~	0		V	0
6-13-22		V	0			0			6
6-15-22		~	0		~	0		V	0
6-16-22			0			6		W	0
6-17-22		~	0		~	6		V	0
6-18.22		1	0		V	U		V	0
6-19.22		~	0		~	0		V	0
6.20.22		V	0		-	0		V	0
6-21-22		1	Ø		V.	8		/.	0
10-23-72			0		1	0		1	0
6-24-22		/	0		/	0		/	0
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