

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

M196867599

FACILITY: McLaren Oakland		SRN / ID: M1968
LOCATION: 50 N PERRY ST, PONTIAC		DISTRICT: Warren
CITY: PONTIAC		COUNTY: OAKLAND
CONTACT: Steve Castor , Manager of Facilities and Transportation		ACTIVITY DATE: 05/09/2023
STAFF: Mark Dziadosz	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 2023 Inspection		
RESOLVED COMPLAINTS:		

On Tuesday, May 9, 2023, I, Michigan Department of Environment Great Lakes and Energy-Air Quality Division staff Mark Dziadosz, conducted an announced scheduled inspection of McLaren Oakland (M1968), located at 50 N. Perry Street Pontiac, Michigan. The purpose of this 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, and Permit to Install (PTI) No. 45-98.

I arrived at McLaren Oakland at 10:00 AM and met with Mr. Steve Castor, Manager of Facilities and Transportation. During the pre-inspection meeting, we discussed facility's PTI (No. 45-98) and the facility's operations. PTI No. 45-98 (opt out for SO₂) is for 3 natural gas fired boilers. PTI No. 134-97 was issued for Ethylene Oxide Sterilizers. The equipment was verified as removed during the last onsite inspection on 3/17/2022 and the PTI was voided on 3/22/2022. According to Steve, the Ethylene Oxide Sterilizers permitted by PTI 134-97 were permanently removed on May 5, 2016, and replaced with VPRO Max Steris. VPRO Max Steris use 59% Hydrogen Peroxide as the sterilant.

Mr. Castor accompanied me for the inspection of the facility. We inspected the Boilers and the emergency generators and associated fuel tanks. The facility has three identical 500-hp, 21 MMBtu/hr natural gas fired steam boilers, subject to 40 CFR Part 60, Subpart Dc New source performance standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units. The boilers use No. 2 fuel oil (ULSD) as a backup fuel. According to Steve, the same fuel is used as a back-up to the boilers and to fire 2 emergency generators onsite.

The facility was issued a violation notice (VN) after the inspection on 3/17/2022 for not completing yearly visible emissions (VE) observation during yearly firing of fuel oil required by 40 CFR 60.43c (c) & (d), not providing a daily record of fuel oil burned, and not keeping natural gas usage in an excel spreadsheet as requested in a VN dated 10/28/2011. A response was received on June 24, 2022. In the response the facility indicated they were not subject to the requirements of 40 CFR 60.43c (c) & (d) due to the size of the boilers. The VE requirement is for boilers with an

individual heat input greater than 30 MMBtu/hr or higher. McLaren boilers are 21 MMBtu/hr each. During this inspection, the facility was able to provide daily fuel oil usage as well as the natural gas records. The records were not provided in an excel spreadsheet, however, the natural gas records are logged internally for all McClaren facilities and are provided through the facilities computer data system. I was able to receive the monthly natural gas records for the past year by month, as requested. The requirement to put records in an excel spreadsheet is burdensome to the facility and will no longer be required.

PTI No. 45-98

The facility has 3 identical boilers. Each boiler has a capacity of 21 MMBtu/hr. The capacity of the boilers makes them subject to the Standards of Performance (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units. The primary fuel for the boilers is natural gas.

Each boiler is a 21 MMBtu/hour, Cleaver-Brooks boiler manufactured in 1995 and capable of firing natural gas or fuel oil number 2. The boilers are not subject to the NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources promulgated in 40 CFR 63 Subpart JJJJJJ if they are operated as gas-fired boilers as defined in the subpart per 40 CFR 63.11195. Mr. Castor indicated these boilers are tested each year using No. 2 fuel oil. These boilers appear to be operating as gas-fired boilers and therefore are not subject to 40 CFR 63 Subpart JJJJJJ.

The boilers are subject to 40 CFR Part 60 Subpart Dc. The facility received a VN on October 11, 2011, for failing to comply with the NSPS since 1995. The facility did not submit the initial notification and was not keeping records as required by the NSPS. The VN response, dated 11/4/2011, contained the initial notification for the NSPS. In the VN, the previous inspector indicated if only ULSD was used as backup fuel for the boiler, a MSDS for the fuel would be kept in the file and the certification and analysis required by the NSPS was not necessary. The MSDS was provided in a follow up e-mail. The VN response also indicated the natural gas records would be kept in an excel file. Natural gas usage records were provided by Matt Ronan during the inspection. The records are based on utility bills. Approximately 97,320 Mcf natural gas was used from May 2022 to March 2023 (April data had not yet been entered).

Visible emissions from each boiler are limited to a 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity. This opacity limit applies at all times except during periods of startup, shutdown or malfunction.

S.C. 13: limits the SO₂ emission rate to for the three boilers to 0.5 lb/MMBtu, 31.5 lb/hr (based on a 30-day time period), and 87.7 tons/yr,

which is equivalent to using distillate fuel oil with a 0.5% sulfur content and a heat value of 140,000 BTUs per gallon. The boilers run on natural gas. The facility only burns distillate fuel oil during annual testing. Mr. Castor was able to show me purchase records from 6/17/22 indicating 498 gallons of ULSD was delivered to the facility (fuel for boilers, 2,092 gallons was also delivered for use in the emergency generators).

S.C. 14: The facility is limited to 2,506,000 gallons of No. 2 fuel oil in the boilers based on a 12-month rolling time period. The facility only uses No. 2 fuel oil during annual testing. According to e-mails from DJ Conley provided by the facility, the boilers operate at around 18.2 gallons/hr per boiler during the annual testing. The 500-gallon fuel tank for the boilers does not have a fuel level indicator. Fuel level is checked by dipstick. The facility reported 1 hour of fuel oil usage on each boiler between 11/1 and 11/2/2022 (equivalent to 18.2 gallons per boiler or 54.6 gallons total).

S.C. 15: The facility is required to keep a daily record of the No. 2 fuel oil usage in the boilers per day. According to Steve, No. 2 fuel oil is only used during the annual boiler testing. According to e-mails from DJ Conley provided by the facility, the boilers operate at around 18.2 gallons/hr per boiler during the annual testing. The facility reported 1 hour of fuel oil usage on each boiler between 11/1 and 11/2/2022 (equivalent to 18.2 gallons per boiler or 54.6 gallons total).

S.C. 16: Visible emissions from the boilers shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301(1)(a). I did not observe any opacity from the stack and the facility has not reported any exceedances of the opacity limit.

S.C. 17: Exhaust gases from the boilers shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 36 inches at an exit point not less than 192.7 feet above ground level. The exhaust stack for the boilers appear to discharge vertically and unobstructed. Stack dimensions were not confirmed during this inspection.

S.C. 18: Requires certification from the fuel supplier of sulfur in the No. 2 fuel oil burned in the boilers by testing in accordance with 40 CFR, Part 60, Subparts A and Dc. Facility was notified in 2022 that going forward a SDS sheet would not be sufficient for fuel supplier certification. Certification was received on 1/3/23 for the fuel shipment on 6/17/22.

S.C. 19: Monitoring and recording of emissions and operating information is required to comply with the NSPS in 40 CFR, Part 60, Subparts A and Dc. The previous inspector did not require fuel supplier certification if the facility kept a copy of the MSDS of the fuel used onsite. Fuel certification was received on 1/3/2023.

Emergency diesel fuel (2) and natural gas (1) fired generators

The facility has 1-1,000 kW Caterpillar Diesel Generator Model No. 3512 installed in 1995; 1-230 kW Waukesha natural gas fired generator Model VCL 00G installed in 1975; and 1-280 kW Caterpillar Diesel Generator Model No. SR-4B installed in 1998. These units are considered existing (manufactured before June 12, 2006). The facility is an area source of HAP emissions. Based on the kilowatt rating and KVA on the nameplate, the maximum fuel consumption for the 1,000 Kw engine is 70.9 gal/hr. ($70.9 \times 140,000 \text{ Btu/gal} = 9,926,000 \text{ BTU/hr}$). These units are exempt from the requirement to obtain a PTI by R336.1285(2)(g).

The generators are test fired once/week for 10 minutes, once/month for 30 minutes and once/year for 4 hours for full load testing.

Since the units were manufactured before April 1, 2006 and July 1, 2007, the units are not subject to 40 CFR Part 60, Subpart IIII nor JJJJ- Standards of Performance for Stationary Compression Ignition (CI)/Spark Ignition (SI) Internal Combustion Engines (ICE).

FUEL STORAGE TANKS

According to Steve, McLaren has two diesel storage tanks with sizes of 500 gallons and 8,250 gallons used for storing fuel for the boilers and emergency generators at the facility. These tanks appear to be exempt from the requirement to obtain a PTI pursuant to Rule 284(2)(d).

Based on the information gathered during the inspection, McLaren appears to be 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, and PTI No. 45-98.

NAME

DATE June 1, 2023

SUPERVISOR

