

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

M196863121

FACILITY: McLaren Oakland		SRN / ID: M1968
LOCATION: 50 N PERRY ST, PONTIAC		DISTRICT: Warren
CITY: PONTIAC		COUNTY: OAKLAND
CONTACT: Steve Castor ,		ACTIVITY DATE: 03/17/2022
STAFF: Mark Dziadosz	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

On Thursday, March 17, 2022, 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 Permits to Install (PTIs) Nos. 45-98 and 134-97.

I arrived at McLaren Oakland at 11:00 AM and met with Mr. Steve Castor, Manager of Facilities and Transportation. During the pre-inspection meeting, we discussed facility's PTIs (Nos. 45-98 and 134-97) and the facility's operations. 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. PTI No. 45-98 (opt out for SO₂) is for 3 natural gas fired boilers.

Mr. Castor accompanied me for the inspection of the facility. We inspected the Boilers and the former location of the Ethylene Oxide Sterilizers. I verified the Ethylene Oxide Sterilizers are no longer onsite. I told Steve I would send him information about how to initiate voiding the PTI and took action to initiate voiding the PTI. The boilers were inspected next. 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.

PTI No. 45-98

The facility has 3 identical boilers. Each boiler has a capacity of 21 MMBtu/hr. The capacity of the boilers make 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 although he was unable to provide records for actual hours of operation but indicated it is approximately 2 hours per boiler per year. 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 an initial performance test was scheduled for July 2012 although the file has no records of this or any subsequent records of Visible Emissions (VE) observation, required in 40 CFR 60.47c (a), during the yearly testing of the boilers while firing fuel oil. The VN response also indicated the natural gas records would be kept in an excel file. Natural gas usage records were provided during the inspection via utility bills. According to the utility bill, approximately 62,472 Mcf natural gas was used in 2021.

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. The underlying applicable requirement for this condition (40 CFR 60.43c (c) & (d)) which applies to boilers that combust coal, wood, or oil and that have a heat input capacity of 8.7 MW (30 MMBtu/h) or greater. 40 CFR 60.47c(a) requires the McLaren to conduct an initial performance test using Method 9 to demonstrate compliance with the opacity limit in 40 CFR 60.43c for facilities that are not required to use Continuous Opacity Monitoring Systems (COMS) and do not use COMS. Subsequent Method 9 performance tests must be completed within 3,6, or

12 calendar months from the date that the most recent performance test was conducted based on the opacity observed during the previous test or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, McLaren may, as an alternative to performing subsequent Method 9 performance tests, elect to perform subsequent monitoring using Method 22. McLaren does not use COMS on the boilers. I did not see any records for VE observation.

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 4/19/21 indicating 799.8 gallons of ULSD was delivered to the facility.

S.C. 14: The facility is limited to 2,506,000 gallons of No. 2 fuel oil based on a 12-month rolling time period. The facility was unable to provide records for No. 2 fuel oil burned in the boilers. According to Steve, the 500-gallon tank containing fuel oil has not been filled in at least 2 years. According to calculations, the boilers should burn approximately 145.8 gallons/hour per boiler during testing at the maximum firing rate. However, according to e-mails from DJ Conley provided by the facility, the boilers operate at closer to 18.2 gallons/hr per boiler during annual testing. The tank does not have a fuel level indicator. Fuel level is checked by dipstick. The facility reported 2,093 gallons of distillate fuel usage for 2021 in MAERS. I told Steve to keep better records of fuel deliveries/usage.

S.C. 15: The facility is required to keep a daily record of the No. 2 fuel oil usage per day. According to Steve, the facility has not filled the No. 2 fuel oil (ULSD) 500-gallon storage tank in at least a couple years. No. 2 fuel oil is only used during the annual boiler testing. I asked if it was possible to get an estimate on fuel usage from the company that does the testing. Steve indicated this was difficult to obtain. The company indicated the usage is close to 18.2 gallons/hr. The tank does not have a fuel level indicator. I told Steve to find a way to record fuel usage and keep better records of the No. 2 fuel oil usage during the yearly testing.

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. The previous inspector did not require fuel supplier certification if the facility kept a copy of the MSDS of the fuel used onsite. Going forward yearly certification will be required.

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. A copy of the MSDS for the fuel used was provided after the inspection. There are no records of Method 9 readings being done during boiler testing while burning No. 2 fuel oil.

PTI No. 134-97

The ethylene oxide sterilization units have been removed from the facility and replaced with VPRO Max Steris. According to Steve, the units were removed May 5, 2016. I initiated the voiding of the permit.

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

The facility has 1-1,000 kW Caterpillar Diesel Generator Model No. 3513 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 have a PTI pursuant to Rule 284(2)(d).

McLaren has a history of late MAERS submittals, the 2021 report was received on time (3/11/2022). 2019, 2016, and 2015 MAERS submittals were late.

Based on the information gathered during the inspection, McLaren appears to be out of 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. Specifically, McLaren is not in compliance with S.C. 19 "Monitoring and recording of emissions and operating information is required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR, Part 60, Subparts A and Dc. All source emissions data and operating data shall be submitted to the District Supervisor in an acceptable format within 30 days following the end of the quarter in which the data were collected." A notice of violation will be issued for non-compliance with S.C. 19.

There are no records of any VE observations being done during the yearly test firing on fuel oil, there are no records of the yearly fuel oil usage, and the records for natural gas usage were not kept in an excel spreadsheet. I notified the facility that going forward, the fuel certifications would have to be submitted, rather than keeping a copy of the MSDS for the fuel. A notice of violation will not be sent for non-submittal of the fuel certifications since the previous inspector notified the facility MSDS would be sufficient.

NAME Mark Dziadosz

DATE 6/7/2022

SUPERVISOR *K. Kelly*