

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

B205059494

FACILITY: Charles River Laboratories (formerly MPI Research)		SRN / ID: B2050
LOCATION: 54943 N MAIN, MATTAWAN		DISTRICT: Kalamazoo
CITY: MATTAWAN		COUNTY: VAN BUREN
CONTACT: Lori Medeiros-Nicholson , Director of Environmental Health and Safety		ACTIVITY DATE: 07/28/2021
STAFF: Rachel Benaway	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site inspection to verify compliance with all state and federal air use regulations.		
RESOLVED COMPLAINTS:		

The purpose of this unannounced inspection on 7/28/2021 by AQD staff, Rachel Benaway, was to verify Charles River Laboratories (CRL) (B2050), a biotechnology research and development facility located in Mattawan, MI, is in compliance with their Permits to Install (PTI) 48-08A, 24-851, and 131-80, as well as all state and federal air use regulations. CRL is considered a synthetic minor source of emissions for NOx and GHG, and a minor source of HAPs, Sox, CO, Pb, PM, and VOCs. The facility is subject to New Source Performance Standard (NSPS) 40 CFR 60 Subpart DC and National Emissions Standards for Hazardous Pollutants (NESHAP) 40 CFR 63, Subpart ZZZZ. The last inspection was completed at the facility on 6/1/2017. Lori Medeiros-Nicholson, the Director of Environmental Health and Safety and Neil Young, the Environmental Health and Safety Specialist, are responsible for reporting. Eric Joslin (Facilities Manager), Jamie Barton (HVAC Specialist), and Neil Young were present for the on-site inspection. Personal protection equipment includes safety glasses and safety shoes. Visitors to the facility are subject to phone camera taping and must wear a visitor badge.

The facility operates three shifts per day, 7 days a week, and employs around 1800 people.

#	Equipment at Facility
2	600 hp gas and #2 fuel oil fired boilers (PTI 131-80)
7	Emergency Generators (PTI 48-08A)
1	Consumat, C-125-P, Incinerator (PTI 24-851)

Since the last inspection in 2017, four new boilers have been installed and one steam boiler was replaced. Similar to many of the existing boilers at the facility, the new units appear to be exempt under Rule 336.1282(2)(b)(i) but were observed during this inspection and have been included in this report. The MTU Diesel generator, EU-EMGEN-2A from PTI 48-08A, has been decommissioned and although the unit is still on site, staff observed the unit loaded onto a hauling trailer in the yard behind the facility, completely disconnected.

FG-GENERATORS

EU-EMGEN-1A, 2A, 3-8

All units are Cummins Diesel, QSK-60 Generators rated at 2,180 kW (2,922 hp) and are used as emergency power sources. The permit lists a NOx emission limit of 82.50 pph by test method for the 7 Cummins units. No stack tests have been requested so compliance with this condition could not be verified at this time.

The diesel used for the engines is stored in tanks below each unit. There are two large diesel tanks on the premises that have been disconnected are not used for storage at this time. Diesel

deliveries are accepted one to two time per year. The facility submitted the certificates that are issued by the fuel supplier once a year.

The units are run once a week for 30 minutes with no load and once quarterly for one hour with load. The facility submitted work orders demonstrating that they are tracking maintenance and testing activities.

The hours meters are checked weekly and logs are kept inside each unit trailer. The facility submitted records demonstrating the hours of operation for all units on a monthly, annual, and 12-month rolling time schedule.

PTI #48-08A

SC	Condition	COMPLIANT?
II.1	Combust only diesel fuel	X
II.2	Sulfur content shall not exceed 0.05 % by weight	X
III.1	Do not exceed 150 operating hours per 12-month rolling time for each unit	X

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.1	Install device to record hours of operation for each generator	X
VI.2	Obtain fuel supplier certification for each delivery of diesel that include: a. flash point b. gravity at 60/60F (spec gravity or degrees API) c. sulfur content (% by weight) d. higher heating value (Btu/lb or Btu/gallon)	X
VI.3	Keep records of date, duration, description of malfunctions, maintenance, testing	X
VI.4	Keep monthly and 12-month rolling time operating hours records	X

EU-EMGEN-1A

Location: Outside Building 5
 Hour Meter Reading: 665.6
 Serial #: K000176295

EU-EMGEN-2A

Location: DECOMMISSIONED

EU-EMGEN-3

Location: Outside Building 5
 Hour Meter Reading: 768.1
 Serial #: J000163480

EU-EMGEN-4

Location: K2 Building
 Hour Meter Reading: 832.6

EU-EMGEN-5

Location: Outside Building 5
 Hour Meter Reading: 816.9

EU-EMGEN-6

Location: M Building
 Hour Meter Reading: 1021.3

EU-EMGEN-7

Location: Q Building
 Hour Meter Reading: 682.2

EU-EMGEN-8

Location: M2 Building
 Hour Meter Reading: 687.5

FG-GENERATORS appears to be in compliance with all permit requirements and conditions at this time.

Boilers

Three 600 hp combination gas and No. 2 fuel oil boilers are permitted at the facility. One of these permitted boilers was removed from the facility and an exempt unit that only runs on natural gas was installed (EUBOILER#6A) in 2016.

PTI #131-80

SC	Condition	COMPLIANT?
9	Visible emissions are limited to opacity of less than or equal to 20% (Rule 301)	X
10	Sulfur dioxide emissions shall not exceed 0.28 lb per MMBtu heat input, Equivalent to using oil with 0.28% sulfur content and heat value of 19,903 BTUs/lb	X
11	Exhaust gases shall be discharged unobstructed vertically from stack with max diameter of 2.3 ft and exit point not less than 49.0 ft above ground level	X

All Boilers on site

EU ID	Location	Rating	Type	Install Date
EU0063	Room 5	2.9 MMBtu/hr	Incinerator	1/1/1985
EUBoiler#2A	Room 2	4 MMBtu/hr	Johnston / Hot Water	7/25/1980
EUBoiler#2	Room 5	20 MMBtu/hr	Johnston / Steam	7/25/1980
EUBoiler#3	Room 5	32.7 MMBtu/hr	Steam	11/2005
EUBoiler#4	Room 4	7 MMBtu/hr	Johnston / Hot Water	7/25/1980
EUBoiler#5	Room 5	20 MMBtu/hr	Johnston / Hot Water	7/25/1980
EUBoiler#6A	Room 5	25.5 MMBtu/hr	Johnston / Hot Water	8/11/2016
EUBoiler#K2-1	Room K2	6 MMBtu/hr	Fulton / Steam	6/1/2007
#F1018986A	Room K2	5 MMBtu/hr	Fulton / Steam	2018
#446746	Room K2	160 psig	Lochinvar / Hot Water	2019
#446747	Room K2	160 psig	Lochinvar / Hot Water	2019
#446748	Room K2	160 psig	Lochinvar / Hot Water	2019
EUBoiler#K2-2	Room K2-Penthouse	2 MMBtu/hr	Fulton / Hot Water	6/9/2007
EUBoiler#K2-3	Room K2-Penthouse	2 MMBtu/hr	Fulton / Hot Water	1/9/2007
EUBoiler#K2-4	Room K2-Penthouse	2 MMBtu/hr	Fulton / Hot Water	2014
EUBoiler#M-2	Room M	5.2 MMBtu/hr	Superior / Steam	1/12/2006
EUBoiler#M-3	Room M	15 MMBtu/hr	Fulton / Steam	1/1/2006
EUBoiler#M-4	Room M	15 MMBtu/hr	Fulton / Steam	1/1/2006
EUBoiler#M-1	Room M	5.2 MMBtu/hr	Steam	1/12/2006
EUBoiler#M2-1	Room M2- Penthouse	1.8 MMBtu/hr	Hot Water	1/9/2007
EUBoiler#M2-2	Room M2- Penthouse	1.8 MMBtu/hr	Hot Water	1/9/2007
EUBoiler#M2-3	Room M2- Penthouse	1.8 MMBtu/hr	Hot Water	1/9/2007
EUBoiler#M2-4	Room M2- Penthouse	1.8 MMBtu/hr	Hot Water	1/9/2007

EUBoiler#M2-5	Room M2- Penthouse	1.8 MMBtu/hr	Hot Water	1/9/2007
EUBoiler#M2-6	Room M2	5.2 MMBtu/hr	Fulton / Steam	1/9/2007
EUBoiler#O	Room O	4 MMBtu/hr	Fulton / Steam	1/1/2006
EUBoiler#Q1	Room Q	1.7 MMBtu/hr	Fulton / Hot Water	1/10/2007
EUBoiler#Q2	Room Q	1.7 MMBtu/hr	Fulton / Hot Water	1/10/2007
EUBoiler#Q3	Room Q	1.7 MMBtu/hr	Fulton / Hot Water	1/10/2007
EUBoiler#Q4	Room Q	5 MMBtu/hr	Fulton / Steam	1/10/2007
EUDHWM-1	Room M	0.42 MMBtu/hr	Genesis / Hot Water	1/1/2006
EUDHWM-2	Room M	0.42 MMBtu/hr	Hot Water	1/1/2006
EUPHWM-1	Room M	1.5 MMBtu/hr	Hot Water	1/1/2006
EUPHWM-2	Room M	1.5 MMBtu/hr	Hot Water	1/1/2006

All boilers appear to be in compliance with all permit requirements and conditions or exemptions at this time.

FGFACILITY

EU-EMGEN-1A, 2A, 3-8

All process equipment, source-wide, including those covered by other permits, grandfathered, and exempt equipment.

PTI #48-08A

SC	Condition	COMPLIANT?
I.1	Less than 90 tpy NOx per 12-month rolling time period	X
II.1	Burn only natural gas and diesel fuel but diesel exclusively in generators	X
II.2	Shall not burn more than 886,818 MMBtu of natural gas per 12-month rolling time	X

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.2	Record natural gas usage for FGFACILITY, monthly and 12-month rolling time	X
VI.3	Keep monthly and 12-month rolling time NOx emissions calculation records for FGFACILITY	X

The facility is tracking the natural gas usage for the entire facility and falls well below the 886,818 MMBtu limit per 12-month rolling time. They are calculating the NOx emissions for the entire facility per 12-month rolling time as well. In 2018, NOx emissions ranged from 23.5 to 32.9 tons per 12-month rolling time. In 2019, NOx emissions ranged from 23.4 to 26.8 tons. In 2020, NOx emissions ranged from 22.7 to 26.2 tons. All calculations were well below the permit limit of 90 tons per 12-month rolling time period. Records are included with this report.

FG-FACILITY appears to be in compliance with all permit requirements and conditions at this time.

INCINERATOR

PTI #24-851

SC	Condition	COMPLIANT?
14	Particulate emissions shall not exceed 0.20 lb/1,000 lb exhaust gas	NA*

15	Visible emissions shall not exceed 6-minute average of 20% opacity (Rule 301)	X
16	Proper operations and maintenance (See Operating Procedures)	X
17	Exhaust gases discharged vertically in stack= 14 in diameter, 49 ft above ground	X
18	Shall not operate unless incinerator is equipped with thermocouple control system for afterburner	X
19	Shall not burn any waste other than Type 0-4 and 100 pph of animal waste or animal byproduct other than Type 4	X

*Compliance was not determined at this time as no stack test has been requested.

Eric Joslin is the incinerator operator responsible for compliance. The unit is cleaned and stack observations occur on a monthly basis. Preheating consists of getting the temperature up to 1500 degF before loading and a timeout switch prevents loading before the right temperature is reached. Typical afterburner operating temperature is 1500-1800 degF. The unit must manually be switched between run and burn down modes. A burn cycle must be completed before the unit can be reloaded. The unit only burns animal carcasses and bagging. Unit maintenance inspection are done once a month by the operating or mechanical group at the facility. The unit was upgraded with a digital temperature monitor. Ashes are collected in a bin in a recessed pit behind the unit. The bin is removed by conveyor and emptied as needed.

The incinerator appears to be in compliance with all permit requirements and conditions at this time.

NAME Rochel Seaway

DATE 8/25/2021 SUPERVISOR RIL 8/30/21