

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

K289966185

FACILITY: Aleda E Lutz VA Medical		SRN / ID: K2899
LOCATION: 1500 Weiss St, SAGINAW		DISTRICT: Bay City
CITY: SAGINAW		COUNTY: SAGINAW
CONTACT: Carla Mose , Industrial Hygienist		ACTIVITY DATE: 01/20/2023
STAFF: Gina McCann	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Inspection of PTI 79-10 and 206-10.		
RESOLVED COMPLAINTS:		

I (glm) conducted an inspection to determine compliance with PTI #79-10 and #206-10. I met with Carla Mose, Industrial Hygienist/GEMS Coordinator. The facility is subject to NSPS Dc & NSPS IIII.

The facility has a natural gas meter for the entire building and does not have a device dedicated to record natural gas usage for only the boilers. A notice will be sent to resolve this compliance issue

Additionally, I spoke with our emissions reporting group regarding the facility reporting emissions. The guidance document states waivers for reporting for natural gas-fired Subpart Dc boilers IF they meet all three criteria listed below:

- The sources are subject to fees only because of the Subpart Dc boiler classification;
- The boilers are capable of burning only natural gas (no oil backup); and
- The boilers have a maximum design heat input capacity of 50 million BTU/hr or less.

The boilers have oil backup and therefore do not meet the criteria to apply the waiver and the facility is required to report. It appears the guidance was updated in 2022. Emissions reporting will be required starting March 2024.

PTI 79-10

This permit contains conditions for three (3) boilers and an emergency generator. The boilers are used to heat the hospital and provide steam to sterilization units. The emergency generator is brought on-line when power to the grid is lost.

EUGEN1

The emergency generator is a 750 kW diesel fuel/No. 2 fuel oil fired generator used for emergency backup and peak shaving power production.

Special condition (SC) II.1.b. requires the facility to use diesel fuel that meets the requirements of 40 CFR 80.510(b), which includes a maximum sulfur content of 15 ppm per gallon, and a minimum centane index of 40; or a maximum aromatic content of 35 percent by volume. To verify the sulfur content, SC VI.3 is the associated monitoring and recordkeeping requirement that requires the facility to keep, in a satisfactory manner, fuel supplier certification records for each delivery of the diesel fuel oil. The certification shall include the name of the oil supplier, sulfur content, and a statement that the fuel complies with the specifications under the definition of distillate oil

in 40 CFR 60.41c. The facility has not added fuel to the 13, 000 gallon tank since the original date in 2013. Documentation was provided detailing the sulfur content at delivery was 15 ppm. Subsequent documentation was provided showing sample analysis in July 2020 and July 2021 was performed to determine viability. A contractor performs polishing of the fuel oil if standards are not met. During the sampling events in 2020 and 2021 the sulfur content was 11 ppm and 7 ppm, respectively.

SC III.1. requires the facility to operate and maintain EUGEN1 according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the manufacturer to ensure compliance with the applicable emission standards in 40 CFR 60.4205(b). The facility conducts monthly run tests and performs weekly generator inspections.

SC III.2. restricts operation of EUGEN1 to less than 500 hours and III.3. restricts hours to less than 100 hours per 12-month rolling time period for the purpose of necessary maintenance checks and readiness testing, per 12-month rolling time period as determined at the end of each calendar month. SC VI.1. is the associated monitoring and recordkeeping requirement that requires the facility to monitor and record the monthly hours of operation of EUGEN1. The log must include the time of operation and the reason the engine was in operation. I reviewed the log for the time period January 2020 through January 2023. The engine operated zero hours due to an emergency and 30.45 hours for testing during this time period.

SC III.4. restricts operation of EUGEN1 unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted to the AQD District Supervisor and is implemented and maintained. The facility provided the most recent MAP from 2014.

SC IV.1. requires the plant to maintain EUGEN1 with a non-resettable hour meter to track the number of hours the engine operates. The generator had 212 hours and 30 minutes on it.

FGBOILERS

This group consists of three (3) 10.4 MMBtu/hr natural gas fired steam boilers with capability to fire No. 2 fuel oil as a backup fuel.

SC II.1. requires the plant to only burn pipeline quality natural gas and No. 2 fuel oil with a maximum sulfur content of 0.50% by weight in FGBOILERS. SC VI.5. is the associated monitoring and recordkeeping requirement that requires the plant to keep, in a satisfactory manner, fuel supplier certification records for each shipment of fuel oil. No fuel has been added to the tank since the original supply in 2008. Documentation was provided detailing the sulfur content at delivery was 15 ppm. Subsequent documentation was provided showing sample analysis in July 2020 and July 2021 was performed to determine viability. A contractor performs polishing of the fuel oil if standards are not met. During the sampling events in 2020 and 2021 the sulfur content was 11 ppm and 7 ppm, respectively.

SC II.2. restrict FGBOILERS to using less than 18,000 gallons per 12-month rolling time period of No. 2 diesel oil usage. SC VI.4 is the associated monitoring and recordkeeping requirement that requires the plant to install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the No. 2 fuel oil usage rate, in gallons per hour, on a daily basis. The facility is using a Veeder Root system and an excel spread sheet is used to record to the fuel usage and

hours ran. For the 12-month rolling time period ending December 2022, the plant used 2,658 gallons of diesel oil.

SC III.2. requires the plant to operate FGBOILERS in a manner consistent with good air pollution control practices for minimizing emissions during periods of startup, shutdown, and malfunction. This includes properly maintaining the equipment. I reviewed the most recent boiler inspection from their vendor Damarc Quality Inspection Services. The vendor inspected five (5) boilers on March 1, 2022. Not all boilers are required to be permitted through AQD. Boiler 1 (Nat'L BD. NO. 1030) and Boiler 3 (Nat'L BD. NO. 1017) had internal and external inspections. The remaining three (3) boilers, including permitted Boiler 2, received external inspections, which can be done while the boiler is in operation.

SC VI.3. requires the facility to install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the natural gas usage rate, in cubic feet per hour, on a daily basis. The facility has a natural gas meter for the building which includes usage for additional equipment, i.e. heaters, etc. The facility currently does not have a device to record natural gas usage for only the boilers. A notice will be sent to resolve this compliance issue.

PTI 206-10

This permit contains conditions for one (1) emergency generator. The emergency generator is brought on-line when power to the grid is lost.

EU-ENGINE BLDG21

This emission unit is a 500-kw diesel-fueled emergency backup generator.

SC I.1. restricts NOx emissions to 2.0 ton per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. SC VI.3. is the associated monitoring and recordkeeping requirement that requires the facility to keep, in a satisfactory manner, monthly and 12-month rolling time period NOx emission calculation records for EU-ENGINE BLDG21. NOx emissions for the 12-month rolling time period ending December 2022 were 0.12 tpy.

SC II.1. restricts operation of EU-ENGINE BLDG21 unless the maximum sulfur content of the fuel oil not to exceed 15 ppm (0.0015 per cent) by weight. SC VI.4. is the associated monitoring and recordkeeping requirement that requires the plant to keep, in a satisfactory manner, fuel supplier certification records for each shipment of fuel oil. No fuel has been added to the tank since the original supply in 2008. Documentation was provided detailing the sulfur content at delivery was 15 ppm. Subsequent documentation was provided showing sample analysis in July 2020 and July 2021 was performed to determine viability. A contractor performs polishing of the fuel oil if standards are not met. During the sampling events in 2020 and 2021 the sulfur content was 11 ppm and 7 ppm, respectively.

SC III.1. requires the facility to operate and maintain EU-ENGINE BLDG21 according to the manufacturer's written instructions or procedures. The facility conducts monthly run tests and performs weekly generator inspections.

SC III.3. restricts operation of EU-ENGINE BLDG21 to less than 500 hours and of these 500 hours, the engine cannot operate more than 100 hours per 12-month rolling time period for the purpose

of necessary maintenance checks and readiness testing. VI.6. is the associated monitoring and recordkeeping requirement that requires the plant to monitor the hours of operation of EU-ENGINE BLDG21 and the reason it was in operation during that time on a monthly basis. I reviewed hours of operation from January 2020 through January 2023. The engine operated between 0.6 hours and 4.25 hours.

SC VI.2. requires the plant to monitor and record in a satisfactory manner the diesel fuel usage rate for the generator on a monthly and 12-month rolling time period basis. The engine used 390.58 gallons for the 12-month rolling time period ending December 2022.

SC IV.1. requires the engine to have a non-resettable hours meter to track its operating hours. During the inspection I viewed this meter. The engine had 200 hours and 19 minutes on it.

SC VI.5. requires the plant to keep, for the life of the engine, the manufacture certification documentation indicating that EU-ENGINE BLDG21 meets the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart IIII. The plant provided EPA certification for this engine.



Image 1(Aleda E. Lutz) : Front of building



Image 2(Boiler 1) : Panel

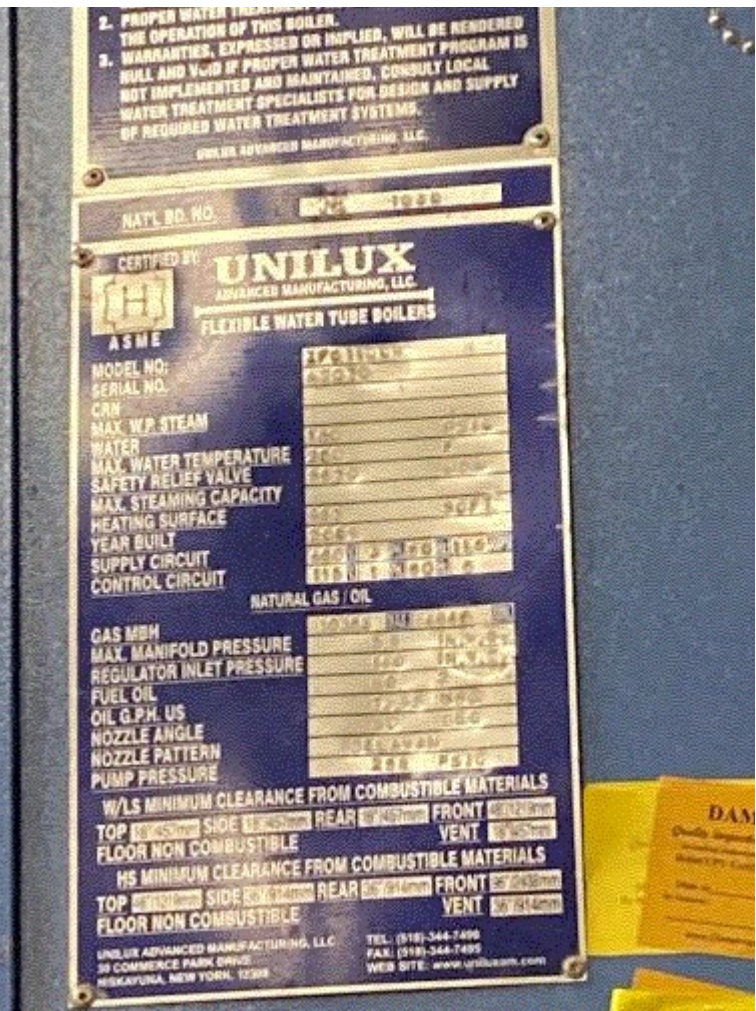


Image 3(Boiler 1) : Serial number and rating.

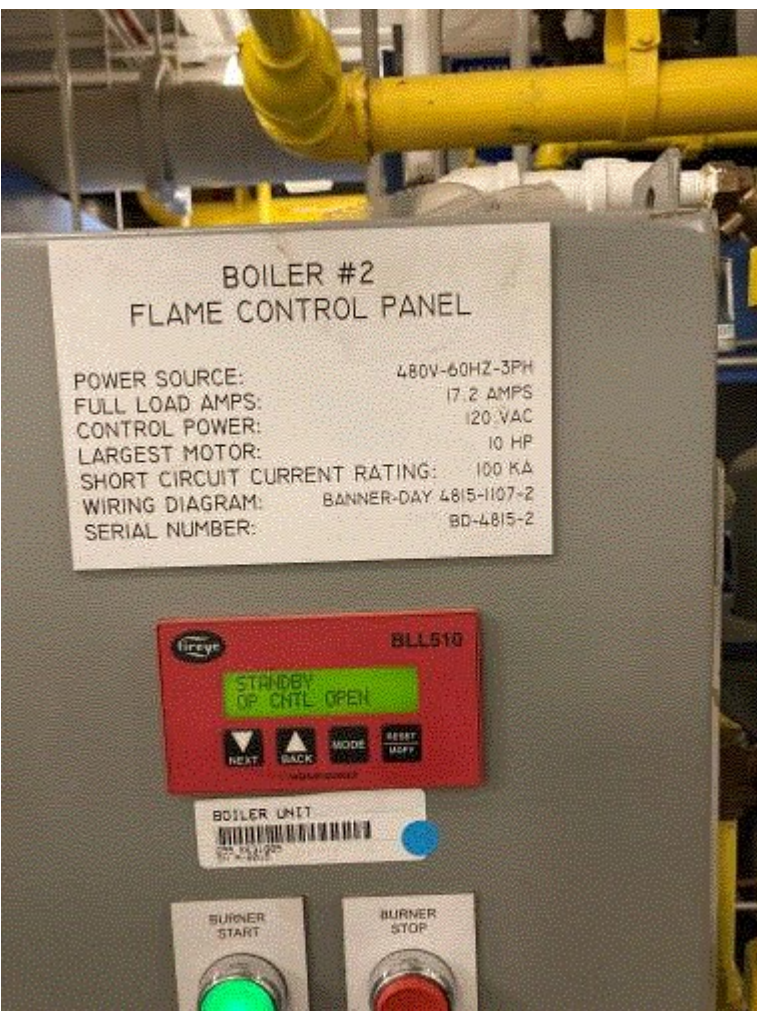


Image 4(Boiler 2) : control panel

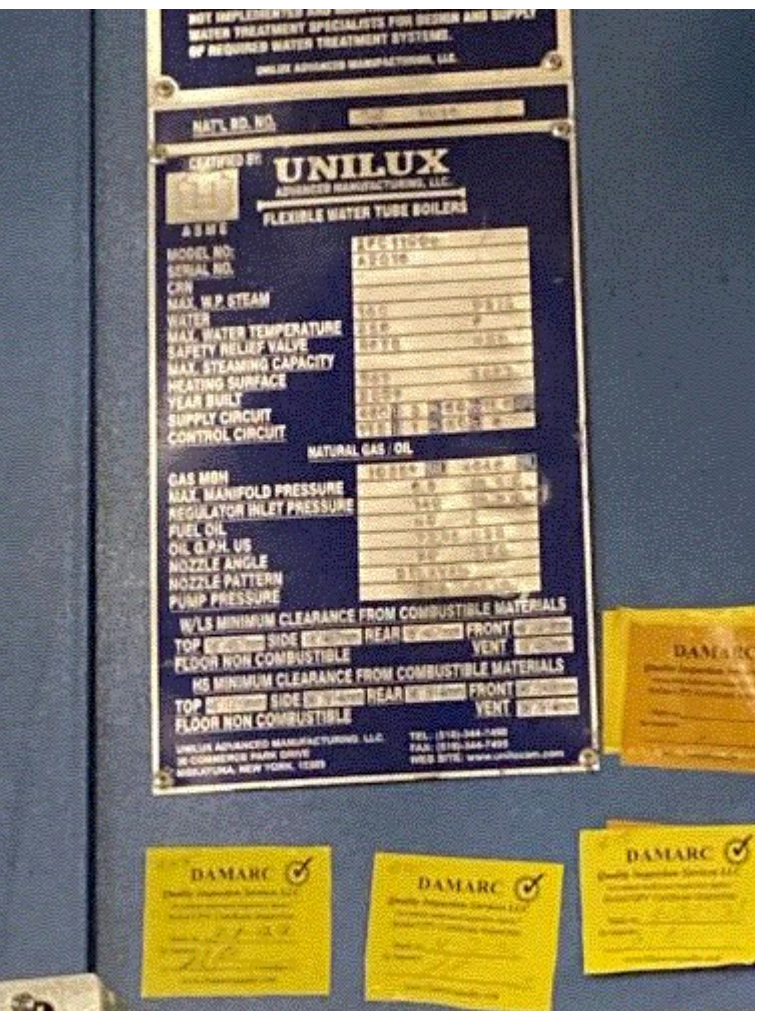


Image 5(Boiler 2) : Serial number and rating

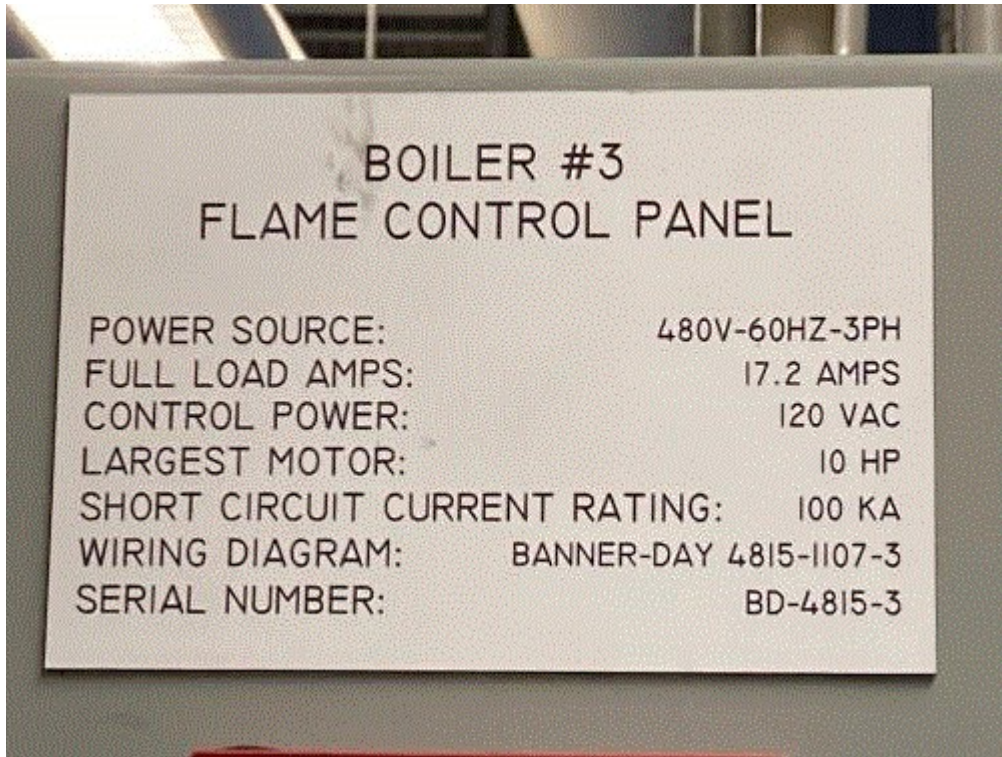


Image 6(Boiler 3) : Panel



Image 7(Boiler 3) : Serial number and rating

NAME 

DATE 1/27/2023

SUPERVISOR 