

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

N698054400

FACILITY: WMU Energy Resource Center		SRN / ID: N6980
LOCATION: 4701 Campus Drive, KALAMAZOO		DISTRICT: Kalamazoo
CITY: KALAMAZOO		COUNTY: KALAMAZOO
CONTACT: George Jarvis , Director		ACTIVITY DATE: 07/01/2020
STAFF: Monica Brothers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Announced Scheduled Inspection		
RESOLVED COMPLAINTS:		

This was an announced, scheduled inspection. Staff, Monica Brothers, arrived at the WMU Energy Resource Center at about 1:40pm and met with George Jarvis, Mark Weiss, and Keith Pung. This facility is permitted under PTI #153-01D for three boilers and three emergency engines, which supply steam and emergency electric power to the engineering campus of WMU.

First, we went to look at the boilers. Boiler 3 is a Kewanee, 14.7 MMBtu/hr natural gas and No. 2 fuel oil-fired boiler with a steam output of 12,200 lbs per hour. It was installed in 2001 and modified in 2010. Boiler 4 is a Cleaver-Brooks, 16.3 MMBtu/hr natural gas and No. 2 fuel oil-fired boiler with a steam output of 13,800 lbs per hour. It was installed in 2006. Boiler 5 is a Cleaver-Brooks, 25.9 MMBtu/hr natural gas and No. 2 fuel oil-fired boiler with a steam output of 20,700 lbs/hr. It was installed in 2010. They are keeping track of the monthly and 12-month rolling usage of natural gas and fuel oil. They have not used any fuel oil in any of the boilers in the past three years. Fuel oil sample analyses from 2018 and 2019 show that the fuel oil has a sulfur content under the 0.05% limit in their permit.

Next, we went to look at the three emergency generators on site. EU-214E-EMERGEN-01 and EU-214W-EMERGEN-02 are 3.58 MMBtu/hr heat input CAT emergency diesel fuel/No. 2 fuel oil-fired generators. EU-215-EMERGEN-03 is a 0.6 MMBtu/hr heat input Cummins emergency diesel fuel/No. 2 fuel oil-fired generator. All three units were installed in 2002. During the tour, we could only access the non-resettable hour meter for EU-215-EMERGEN-03, which read 561.7 hours. It was agreed that they would send me photos of the other two hour-meters, once they could get someone with keys to open them. Follow-up emails with photos showed that EU-214E-EMERGEN-01 has logged 688 hours, and EU-214W-EMERGEN-02 has logged 696 hours. Fuel oil sample analyses from 2018 and 2019 show that the fuel oil has a sulfur content under the 0.05% limit in their permit. They are required to keep 12-month rolling calculations of the operating hours for each emergency generator. They are keeping these records and are consistently under the 500 hour/year limit.

After seeing the generators, we took a look at the exempt equipment in Floyd Hall. There is one parts washer, but we could not see it during the tour because the doors were locked to the room. Keith sent me a photo of the unit after the inspection. It is not heated or agitated, and it had the EGLE rules posted on the outside of the unit. There are also two paint booths in the building. One of them was a very small booth that uses only spray cans and vents internally. The other larger booth is located in the Plastics Lab. It uses HPVL applicators and is vented externally. Fabric filters were in place. Keith said that it is only used when they are building a solar car, which happens only every 4-5 years. He checked with Michael Konkell, a Floyd Hall Engineering Professor about paint usage, and he said that they typically use about 40 gallons during the year they build the car. This booth would be considered exempt under Rule 287(2)(c). There is also a pilot paper machine in this building. This machine used to be located on WMU's main campus but was recently relocated to Floyd Hall. The only time they use solvent in the printing process is for one particular client about once per year. Mark said that they are operating the paper machine under Rule 290. Each solvent that is used is not considered a carcinogen, so they are limited to 1000lbs/month of VOCs. The last time they used VOC in the unit was in early 2020, and Mark said they used about 300 lbs. This complies with the 1000 lb/month limit in the Rule 290 exemption. The facility seemed to be in compliance at the time of inspection.

NAME *Monica Brothers*

DATE *9/29/2020*

SUPERVISOR *RIL 10/5/20*