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

N365570210

FACILITY: Bronson Battle Creek		**SRN / ID:** N3655
LOCATION: 300 NORTH AVE, BATTLE CREEK		**DISTRICT:** Kalamazoo
CITY: BATTLE CREEK		**COUNTY:** CALHOUN
CONTACT: Robert Chaplin , Plant Operations Manager		**ACTIVITY DATE:** 11/08/2023
STAFF: Rachel Benaway	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: On-site inspection to verify compliance with PTI 325-07 and all state and federal air use regulations.		
RESOLVED COMPLAINTS:		

AQD staff (Rachel Benaway) conducted an unannounced air quality inspection of Bronson Battle Creek (N3655), a hospital located in Battle Creek, MI, on 11/8/2023. The purpose of this inspection was to verify Bronson Battle Creek is in compliance with their Permit to Install (PTI) #325-07 and all state and federal air use regulations. Bronson Battle Creek is considered a minor source of nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO), lead (Pb), particulate matter (PM), and volatile organic compound (VOC) emissions. The facility is subject to New Source Performance Standard (NSPS) 40 CFR 60 Subparts Dc. The last inspection was completed at the facility on 3/4/2013. Robert Chaplin is the Plant Operations Manager for the facility, responsible for submitting requested records. Mark Allen is the Facility Services Supervisor and was present for the on-site inspection. Personal protection equipment includes safety shoes.

The Energy Center is located to the southeast of the main hospital building, north of the parking lot for the Outpatient Services entrance. There are no cold cleaners at the facility.

#	Equipment at Facility
2	Cleaver-Brooks CB.200.400.150 packaged boilers 16.75 MMBtu/hr nat gas OR No. 2 fuel oil **(EU-BOILER B-1 and EU-BOILER B-2)**
1	Cleaver-Brooks CB.200.400.150 packaged boiler 16.329 MMBtu/hr nat gas OR No. 2 fuel oil **(EU-BOILER B-3)**
3	Caterpillar 3412 Diesel Generators, 600kw **(EU-GENERATOR G-1, G-2, and G-3)**

The following is a summary of information obtained from the on-site inspection and the submittal of requested records. Where applicable, compliance determinations are indicated for each special condition established in the PTI, organized by flexible groups (FG).

FG-BOILERS

Description: Two of the Cleaver-Brooks boilers are CB.200.400.150 packaged boilers with a heat input rating each of 16.75 MMBtu/hr when firing natural gas. When firing No. 2 fuel oil, their fuel input rating is 119.5 gallons per hour. The third boiler is also a CB.200.400.150 packaged boiler but is a low emissions design with a heat input rating of 16.329 MMBtu/hr when firing natural gas. When firing No. 2 fuel oil, its fuel input rating is 116.6 gallons per hour. The boilers are labeled 1, 2, and 3 with parameters as follows:

	1	2	3
Year Installed	**1996**	**1996**	**2005**
Operating?	**No**	**Standby**	**Yes**
Load %	**0**	**Idle**	**11% firing rate**
Last Inspected	**10/31/23**	**2/23/23**	**6/29/23**

Emission Limits:

SC	Pollutant	Limit	Time Period	COMPLIANT?
I.1	NOx	31.4 tpy	12-MRT	Yes
I.2	VE	20% opacity	When firing fuel oil	Yes

SC	Condition	COMPLIANT?
I.3	Combust only natural gas or distillate oil	Yes
I.4	Sulfur content of fuel oil burned shall not exceed 0.05 % by weight	Yes
I.5	Comply with NSPS 40 CFR 60, Subparts A and Dc	Yes
I.6	Monitor natural gas and fuel oil usage on a monthly basis	Yes

I.7	Obtain fuel supplier certification for each delivery of distillate oil	Yes

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
I.8	Keep monthly and 12-MRT NOx emissions calculation records for 5-year period	Yes
I.9	Keep copies of fuel supplier certifications for 5- year period	Yes
I.11	Keep monthly natural gas and fuel oil usage records for 5-year period	Yes

The facility submitted NOx emissions calculations for each boiler demonstrating compliance with the emission limit of 31.4 tpy (SC I.1). NOx emissions averaged just under 4 tpy for the most recent 5-year period. The facility submitted verification of each #2 dyed diesel delivery back to 2019. The facility also submitted fuel usage records for the most recent 5-year period.

As specified in Subpart Dc, the facility maintains at least a 72-hours of fuel oil firing capability stored on-site in underground tanks. The fuel oil is used for half hour maintenance runs each month.

FG-GENERATORS

Description: Three Caterpillar 3412 Diesel emergency use generators rated at 60 kW. (EU-GENERATOR G-1, G-2, and G-3). The generators are labeled 1, 2, and 3 with parameters as follows:

	1	2	3
Serial No	**9FG00833**	**9FG00834**	**9FG00832**
Year Installed	**1996**	**1996**	**1996**
Operating?	**No**	**No**	**No**
Hours Meter	**782.4**	**768.5**	**777.9**
Air filter date	**8/21**	**8/21**	**8/21**

Emission Limits:

SC	Pollutant	Limit	Time Period	COMPLIANT?
2.1	NOx	20.4 tpy	12-MRT	Yes

SC	Condition	COMPLIANT?
2.7	Keep monthly and 12-MRT NOx emissions calculation records for 5-year period	Yes
2.8	Keep copies of fuel supplier certifications for 5- year period	Yes
2.9	Keep monthly hours of operation records for 5-year period	Yes

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
2.7	Keep monthly and 12-MRT NOx emissions calculation records for 5-year period	Yes
2.8	Keep copies of fuel supplier certifications for 5- year period	Yes
2.9	Keep monthly hours of operation records for 5-year period	Yes

The facility submitted NOx emissions calculations for each generator demonstrating compliance with the emission limit of 20.4 tpy (SC 2.1). NOx emissions averaged just under 1 tpy for the most recent 5-year period. The facility submitted verification of each #2 dyed diesel delivery back to 2019. The facility also submitted hours of operation records for the most recent 5-year period for each engine.

FGFACILITY

Source-wide

Emission Limits

SC	Pollutant	Limit	Time Period	COMPLIANT?

3.1	NOx	89.5 tpy	FG-FACILITY	Yes

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
3.2	Keep monthly and 12-MRT NOx emission records for 5-year period	Yes
3.3	Keep monthly and 12-MRT natural gas and fuel oil usage records for FG-FACILITY indicating total amount of natural gas in cubic feet and fuel oil in gallons on monthly and 12-MRT basis for 5-year period.	Yes

The facility submitted NOx emissions calculations for all emission units at the facility demonstrating compliance with the emission limit of 89.5 tpy (SC 3.1). NOx emissions averaged around 5 tpy for the most recent 5-year period. The facility also submitted monthly and 12-month rolling totals of natural gas and fuel oil usage for all emission units at the facility for the most recent 5-year period.

Bronson Battle Creek appears to be in compliance with all permit conditions at this time.

NAME Rachel Bonaway DATE 12/21/23 SUPERVISOR