



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
CADILLAC DISTRICT OFFICE



LIESL EICHLER CLARK
DIRECTOR

June 18, 2021

VIA E-MAIL & US MAIL

Edward Going
Grayling Generating Station
4400 West Four Mile Road
Grayling, Michigan 49738

SRN: N2388, Crawford County

Dear Edward Going:

VIOLATION NOTICE

The Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), has completed our review of the April 26th to May 3rd, 2021 Relative Accuracy Test Audits (RATAs) of the Continuous Emission Monitors (CEMs) used to measure stack gas flow at Grayling Generating Station (GGS) located near Grayling, Crawford County. The Renewable Operating Permit number MI-ROP-N2388-2014a requires the facility to monitor and record emissions from EUBOILER on a continuous basis and with instrumentation acceptable to the AQD. This monitor is required by Renewable Operating Permit (ROP) MI-ROP-N2388-2014a; Title 40 of the Code of Federal Regulations (CFR), Part 97, Subparts AAAAA, BBBBB and CCCCC.

During the review of the November 2020 RATA and Emission Testing results, anomalies were noticed when the flow data were compared. The testing company's Reference Method (RM) flow data from the stack test runs were compared to the facility's CEM flow data during the same time periods. The RM stack test flow data was significantly higher than the facility's flow CEM data. EGLE staff recreated a RATA using the RM flow data and flow CEM data from the same time periods and a failure was detected. This demonstrated something is wrong with the facility's flow CEM. The AQD cannot accept the RATA performed in November 2020. During the February 23, 2021 conference call with GGS, Consumers Energy, and EGLE, a reason for the significant difference could not be explained. Eventually, it was decided that GGS's flow CEM would be retested.

High Flow RATA created from November 2020 stack tests (kscfh)			
CEM SN	FLOW = 16438615		
Run	RM	CEM	d
1	8570	6818	1752
2	8591	6915	1676
3	8586	6983	1603
4	8478	7037	1441
5	8586	7101	1485
6	8536	7071	1465
7	8617	7096	1521
8	8596	7148	1448
9	8676	7123	1553
AVG	8582	7032	1549
Sd			108
CC			83
RA			19.03
BAF			1.22

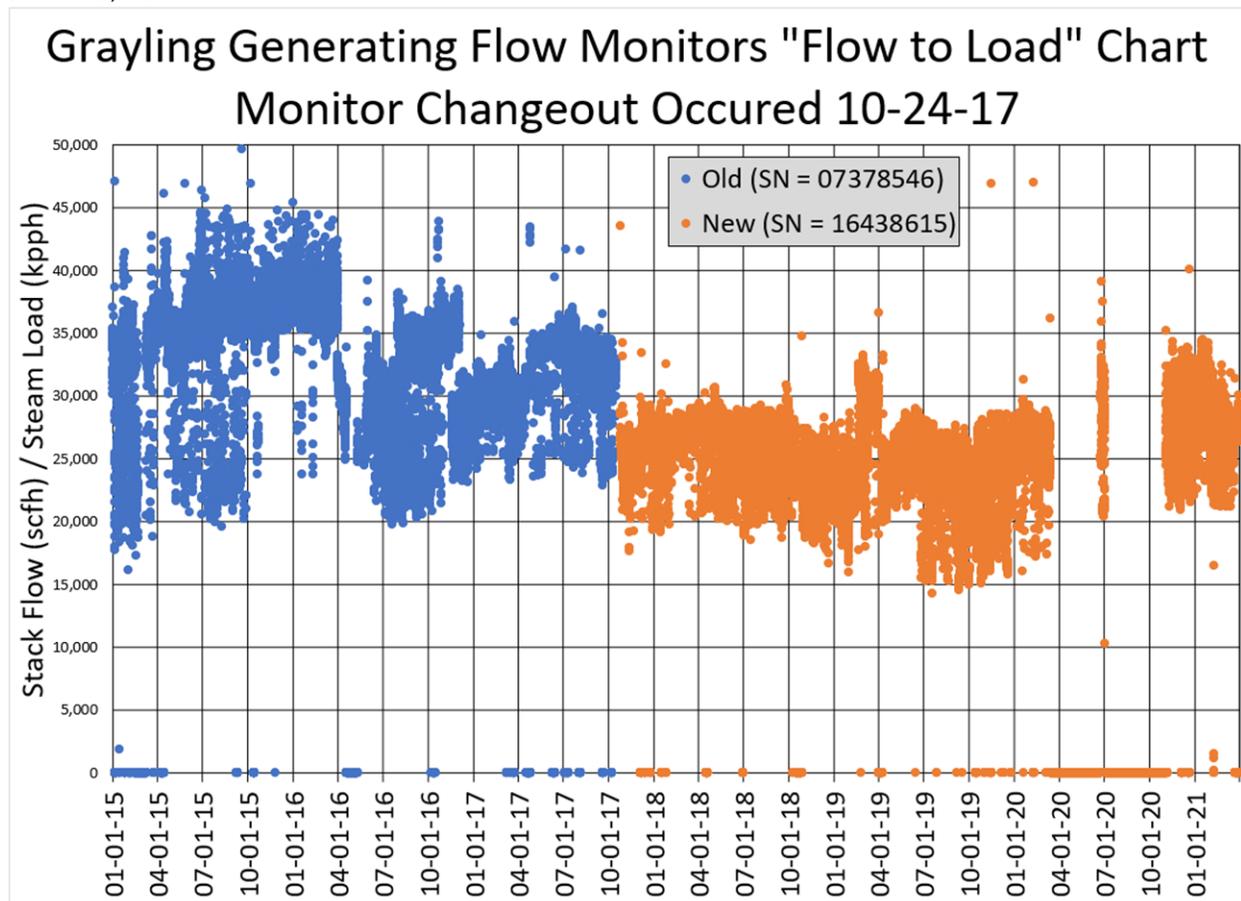
PM/Metals R1
 PM/Metals R2
 PM/Metals R3
 BAP R1
 BAP R2
 BAP R3
 H2SO4 R1
 H2SO4 R2
 H2SO4 R3

On April 26, 2021, trial flow RATAs were observed at three loads (Low/Mid/High). Each load failed the relative accuracy criteria. Specifically, the relative accuracies ranged from 23-31%. It should be noted that the RM flow data at High Load were similar to the RM stack test data from the November 2020 Emissions Testing. On April 29, 2021 a representative from Sick, the CEM flow monitor manufacturer, was onsite and made three changes to GGS's CEM Data Acquisition and Handling System (DAHS), which are detailed below. It should also be noted that the calibration coefficient was changed twice; once at a Low Load during a diagnostic flow check from 1.00 to 1.20, then again at a High Load during a diagnostic flow check from 1.20 to 1.25. On April 29, 2021 GGS passed RATAs at Low Load and Mid Load. On May 3, 2021 GGS passed RATA at High Load.

The three changes made to GGS's CEM DAHS by the Sick representative were:

1. The calibration coefficient cv_1 was increased from 1.00 to 1.25
2. The stack area was decreased from 49.19 ft² to 46.16 ft²
3. The stack pressure was decreased from 2.12 lb/ft² to 2.04 lb/ft²

In subsequent discussions and after looking at past testing data with the US Environmental Protection Agency's, Clean Air Market Division's (CAMD) staff, it was agreed the flow data going back to the October 24, 2017 flow monitor changeout, appeared to be suspect. This was further confirmed in the flow to load ratio, before and after the current flow monitor was installed, as is evident in the graph below by the noticeable divergence at the time of monitor changeout. CAMD agreed with EGLE, "that the data appeared to be anomalous and worthy of additional explanations." CAMD also agreed that GGS should review all the certified data reported from October 24, 2017 onward, and determine if the data continues to be considered true and accurate to the best of GGS's knowledge; which is, consistent with the certification statement that accompanies any 40 CFR Part 75 submission.



During our review, staff noted the following violations:

Process Description	Rule/Permit Condition Violated	Comments
EUBOILER	MI-ROP-N2388-2014a, EUBOILER, IV, 2 (40 CFR 60.13, 40 CFR Part 75, R 336.1213(3))	Failure to continuously monitor with a flow CEM installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and 40 CFR Part 60, Appendix B, or 40 CFR Part 75, as appropriate.
EUBOILER	MI-ROP-N2388-2014a, EUBOILER, VI, 1 (40 CFR 60.13, 40 CFR Part 75, R 336.1213(3))	The permittee shall monitor and record the nitrogen oxides emissions, sulfur dioxide emissions, carbon dioxide concentration and exhaust flow rate of EUBOILER on a continuous basis in accordance with 40 CFR Part 75.
EUBOILER	MI-ROP-N2388-2014a EUBOILER, VII, 2 and 3 (R 336.1213(4)(c))	Failure to report and certify deviations from compliance as required in annual certifications of compliance and semi-annual deviation reporting.

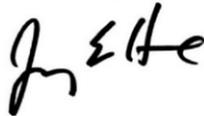
Ed Going
Grayling Generating Station
Page 4 of 4
June 18, 2021

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by July 9, 2021 (which coincides with 21 calendar days from the date of this letter). The written response should include: The dates the violations occurred; An explanation of the causes and duration of the violations; Whether the violations are ongoing; A summary of the actions that have been taken and are proposed to be taken to correct the violations and the dates by which these actions will take place; and What steps are being taken to prevent a reoccurrences.

If Grayling Generating Station believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate information to explain your position.

Thank you for your attention to resolving the violations cited above. If you have any questions regarding the violation or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,



Jeremy Howe
Environmental Quality Analyst
Air Quality Division
231-878-6687 / howej1@michigan.gov

cc: Mary Ann Dolehanty, EGLE
Dr. Eduardo Olaguer, EGLE
Jenine Camilleri, EGLE
Christopher Ethridge, EGLE
Shane Nixon, EGLE
Karen Kajiya-Mills, EGLE
Becky Radulski, EGLE