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EGLE - Mailroom

November 26, 2024

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Subject: Response to Violation Notice issued 11/04/2024 Submitted VIA US Mail and email

Dear Mr. Howe & Ms. Camilleri:

This submission is to respond to the Violation Notice (VN) issued to the Grayling Generating Station, Limited Partnership (GGS) on November 4, 2024. The allegation is for an issue that arose during a flow Relative Accuracy Test Audit (RATA) event on October 15, 2024, where the high load flow RATA failed an initial attempt but passed a subsequent RATA shortly thereafter. The VN was issued prior to the test report submission from GGS to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on November 13, 2024, with an addendum to the cover letter submitted on November 18, 2024.

As directed by EGLE during the test event, the test report submission contains the regulatory reasoning for treating the first three RATA runs on October 15, 2024, as failed trial runs that were ultimately treated as a failed RATA attempt. Despite the RATA protocol sent to EGLE on September 3, 2024 clearly identifying the intent to treat the first three runs at each load as trial RATA runs that would only become part of the official RATA if they were passing, the test team may not have clearly communicated to the EGLE personnel on site the high load flow RATA attempt as "failed" after the first three runs and kept collecting additional runs with sequential numbering. In hindsight, the high load flow RATA attempt should have been clearly called "failed" after the first three runs, with another high load flow RATA commencing thereafter with new run numbering starting at Run 1. The preceding proper treatment of the flow RATA runs was applied after the fact, and we recognize the field communications may have given the impression we were conducting a 15-run high load flow RATA.

Mr. Kevin Starken of Consumers Energy (a GGS affiliate), who was onsite for test support, sent a follow-up email the day after testing to relay the preliminary results, with the understanding that the test report would include all the proper regulatory citations and interpretations applicable to the event. The content of that email correspondence is cited directly in the EGLE VN, and this is contrary to the communication with EGLE whereby GGS would offer a discussion of the failed flow RATA attempt within the associated test report.

The email language from Mr. Kevin Starken on October 16, 2024, may have created confusion in that it suggests there was an option of treating the first three runs as part of the official RATA attempt. However, with the stated intent of treating these three runs as trial runs with the test protocol, once any of these three runs failed to meet the criteria 40 CFR 75.20(b)(3)(vii)(E)(2), the trial RATA is considered failed, and none of the runs can be used as part of the official RATA. Adding further confusion is that while in the field, the test contractor did not immediately restart the RATA run numbering after the first three runs. As a result, all the high load flow RATA test runs that day were consecutively numbered in order of time and were not properly differentiated between what was to be labeled as "trial" (R1-R3) and what was the new RATA (R4-15) in the test report.

In the field, after the first three runs, testing was paused, which allowed the test contractor and the plant personnel time to review their respective equipment to rule out any possible problems. This effort did not yield any obvious issues; therefore, additional high load flow runs then commenced approximately one hour later. The thought at the time was that the re-commencement of the test activity after the pause would be considered a new RATA attempt, even though we were still assessing what the data would look like if the first attempt (first three runs) were part of the assessment. A clear distinction should have been made that a new RATA had started.

The preferred path would have been to re-linearize the unit and thus clearly prompt a new RATA attempt. However, GGS was in the unfortunate situation of not having the resource to re-linearize the flow monitor as the vendor could not provide a password to access the system menu to change it. Multiple attempts for vendor assistance, including the request for an onsite representative, was not obliged by the analyzer vendor (SICK).

The VN is cited as follows:

The following permit condition has been violated as part of the above referenced high load exhaust gas flow RATA conducted on October 15, 2024:

Process Description	Rule/Permit Condition Violated	Comments
EUBOILER	MI-ROP-N2388-2014a, EUBOILER, IV, 2	The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and Appendix B, 40 CFR, Part 60, or 40 CFR, Part 75, as appropriate.

The VN further states that:

"40 CFR, Part 75.20(b)(3)(vii)(E)(2) requires the average reference method reading and the average CEMS reading for the run differ by no more than $\pm 10\%$ of the average reference method value. Also, 40 CFR, Part 75.20(b)(3)(vii)(F) are required if the results of any RATA run(s) are outside the limits in paragraphs (b)(3)(vii)(E)(1) or (2) of this section or if the CEMS is repaired, re-linearized or reprogrammed after the RATA run(s), the run(s) shall be counted as a failed linearity check or RATA attempt."

We are unaware of a provision in 40 CFR Part 75 that states a failed RATA is a deviation or violation. If a RATA is failed, downtime is accrued prospectively until a passing RATA is conducted. The following paragraphs summarize how the regulatory logic is presented in the test report.

The 40 CFR Part 75 regulation anticipates the possibility of a failed RATA, and has specific provisions for how to handle that circumstance in Part 75, Appendix B as shown in the following excerpt:

2.3.2 (e) For a RATA performed using the option in paragraph (b)(1) or (b)(2) of this section, if the RATA is failed (that is, if the relative accuracy exceeds the applicable specification in section 3.3 of appendix A to this part) or if the RATA is aborted prior to completion due to a problem with the CEMS, then the CEMS is out-of-control and all emission data from the CEMS are invalidated prospectively from the hour in which the RATA is failed or aborted. Data from the CEMS remain invalid until the hour of completion of a subsequent RATA that meets the applicable specification in section 3.3 of appendix A to this part... (emphasis added)

During the high load test on October 15, 2024, after 3 trial runs (as allowed in 75.20(b)(3)(vii)(E)), it was apparent that the unit had failed the initial high load RATA attempt or trial. Therefore, GGS must consider the first three RATA runs a failure, as stipulated in 75.20(b)(3)(vii)(F). We now realize this may not have been properly communicated in the field and preliminary run numbering added to the confusion. The relevant regulatory citation is as follows:

(F) If the results of any trial gas injection(s) or RATA run(s) are outside the limits in paragraphs (b)(3)(vii)(E)(1) or (2) of this section or if the CEMS is repaired, relinearized or reprogrammed after the trial injection(s) or run(s), the trial injection(s) or run(s) shall be counted as a failed linearity check or RATA attempt. If this occurs, follow the procedures pertaining to failed and aborted recertification tests in paragraphs (b)(3)(vii)(A) and (b)(3)(vii)(B) of this section. (emphasis added)

It was known by the end of the three runs that that the RATA was failing with Run 3 ending at 12:25. The next step was for the test team to double check test equipment for any leaks through QA checks, check probe orientation, review calculations, and for the plant to review boiler

operational parameters and the flow probe equipment for abnormal conditions. No relinearization or other adjustments were conducted on the flow CEMS. A new RATA attempt commenced at 13:31, as allowed in Part 75, Appendix B:

2.3.1.4 Number of RATA Attempts

The owner or operator may perform as many RATA attempts as are necessary to achieve the desired relative accuracy test audit frequencies and/or bias adjustment factors. However, the data validation procedures in section 2.3.2 of this appendix must be followed.

Therefore, the flow data is considered out of control until the next passed RATA, which was completed October 15, 2024, at 15:51, assessed according to the previously cited language at 40 CFR Part 75, Appendix B, Section 2.3.2(e). Thus, the flow CEMS data is being invalidated between October 15, 2024, hour 12:00 (when the first attempt/trial was failed) through hour 15:00, when the second RATA attempt was successfully completed.

It should be further noted that the low load flow RATA had been completed on October 14, 2024. 40 CFR Part 75 also provides guidance on the impact of a failed flow RATA at one load when part of a multi-load flow RATA. Specifically, Appendix B, Section 2.3.2(f) states the following:

For a 2-level or 3-level flow RATA, if, at any load level (or operating level), a RATA is failed or aborted due to a problem with the flow monitor, the RATA at that load level (or operating level) must be repeated. The flow monitor is considered out-of-control and data from the monitor are invalidated from the hour in which the test is failed or aborted and remain invalid until the passing of a RATA at the failed load level (or operating level), unless the option in paragraph (b)(3) of this section to use the data validation procedures and associated timelines in § 75.20(b)(3)(ii) through (b)(3)(ix) has been selected, in which case the beginning and end of the out-of-control period shall be determined in accordance with § 75.20(b)(3)(vii)(A) and (B). Flow RATA(s) that were previously passed at the other load level(s) (or operating level(s)) do not have to be repeated unless the flow monitor must be re-linearized following the failed or aborted test. If the flow monitor is re-linearized, a subsequent 3-load (or 3-level) RATA is required, except as otherwise provided in section 2.3.1.3 (c)(5) of this appendix.

In this circumstance, the flow monitor was not re-linearized, repaired or otherwise adjusted between the two RATA attempts at high load. Thus, the previously completed RATA at the low load operating level did not need to be reconducted despite the failure of the 1st failed attempt/trial at the high operating level.

In summary, GGS portrayed in the test report the intent of the test plan (although perhaps not properly assessed/communicated in the field) in conducting three trial runs, found that the trial runs exceeded the limit, deemed the trial runs a failed RATA attempt, re-assessed equipment, then started a new 12-run high load RATA that passed criteria for 40 CFR Part 75 and quarterly testing frequency under the Administrative Consent Order (ACO) in place with EGLE and GGS. Flow monitor downtime was assigned to operating hours 12:00 through 15:00, totaling 4 hours

of downtime.

It bears noting that the plant has recently been operating at low load greater than 90% of the time (load data from November 2023 to November 2024), which meets the criteria for single load flow RATA testing in 40 CFR P75, Appendix B, 2.3.1.3(c)(3). The low load flow RATA test result for this test event was 1.05% RA. Two-load testing is solely a requirement of the ACO.

Even though the site does not operate the boiler a substantial amount of time at high load, operating the flow monitor with a precision of greater than 7.5% RA is not ideal. As a result of that circumstance, compounded with the issuance of a VN, GGS is planning on re-evaluating the flow analyzer and conducting a new flow RATA test the week of December 9, 2024, as we anticipate a re-linearization will be necessary. Notice of this test event was submitted to your office on November 18, 2024, via email. We have scheduled the flow monitor vendor, SICK, for an on-site visit prior to and/or during the test event to review vendor recommended maintenance, provide training for site personnel, and assist with determining a k-factor for linearization if necessary.

Also, please note that Mr. Thomas Clift is the new Responsible Official for GGS for Renewable Operating Permit (ROP) compliance (per communication submitted to EGLE, dated October 10, 2024) and should be included on correspondences (thomas.clift@nsce.com). Please don't hesitate to contact me at (517) 375-3043 if you have any questions or require further information concerning the contents of this submittal. We welcome the opportunity to discuss this response with EGLE through a virtual or in person meeting. We believe this response satisfactorily addresses EGLE's request.

Sincerely,

Kathryn Cunningham, P.E.

CMS Energy, NorthStar Environmental Corporate Support

cc: Kyle Creason – GGS; Tom Clift – GGS

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