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OCT 29 2015

Air Quality Division
Detroit Office

DTE Energy



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October 28, 2015

Mr. Thomas Maza
Air Quality Division
Michigan Department of Environmental Quality
3058 West Grand Boulevard, Suite 2-300
Detroit, MI 48202

Re: DTE Electric Company – River Rouge Power Plant (SRN: B2810) Response to MDEQ-
AQD Violation Notice Dated October 12, 2015

Dear Mr. Maza:

DTE Electric Company's River Rouge Power Plan (the "plant") is operated under Renewable Operating Permit MI-ROP-B2810-2012 (ROP). DTE received a Violation Notice (VN) issued by MDEQ dated October 12, 2015. The VN stated that the second quarter 2015 excess emissions report (EER) indicated that there was an extended period of monitor downtime. Specifically, the sulfur dioxide (SO₂) monitor downtime was reported at 25.2% of the operating time for the quarter. The VN was issued for failure to continuously monitor. This issue was brought to the attention of AQD through discussions with Nazaret Sandoval and yourself in early June and reported to AQD in the aforementioned EER in late July.

Although this issue was previously reported, a review of the situation and corrective actions is provided here. No SO₂ emission limits were exceeded at any time. As reported in the EER, there were two separate periods of downtime on the SO₂ monitor on Unit 3 at the plant during the 2nd quarter of 2015. The first instance was a 24 hour period on April 11-12. The second instance totaled 378 hours between May 25 and June 10. The unit was offline for a portion of this period.

Background

The April 11-12 issue was due to a dirty filter in the SO₂ probe. After discovering some abnormal readings in the CEMS, plant instrument and control (I&C) technicians began troubleshooting the system. The troubleshooting included recalibrating the analyzers, manual blowbacks of the system, and working with the supplier to identify the problem. The dilution

probe was determined to be the cause of the issue, namely a dirty filter. The probe was removed from service in order to replace the dirty filter resulting in the reported downtime.

The period of downtime in late-May/early-June was caused by a much more uncontrollable situation. After investigation, the root cause of the downtime was found to be damage to the monitor probe inside the stack. A brick from the interior liner of the stack above the probe location had fallen and severely damaged the probe beyond repair. When the issue was initially discovered on May 25, SO₂ readings were still being sent to the data acquisition and handling system (DAHS), however the readings were much lower than normal. Plant I&C technicians performed routine and non-routine work on the system in an effort to address the low readings. After this work proved to be unsuccessful in addressing the readings, it was determined that there was indeed a probe issue with the help of internal DTE Energy subject matter experts. The SMEs were able to determine that there was a step change in carbon dioxide (CO₂) percentage values using the EPA CO₂ audit control chart. This determination was made on or around June 1. Although the issue was identified, there was significant work needed to replace the probe including ordering the probe, bringing a contractor from out-of-state to the site to install the probe, installation and startup. The lengthy investigation and coordination of the new installation caused the downtime to be greater than a more simple CEMS equipment issue. Once the new probe was installed and operational, the SO₂ data returned to normal.

Preventive Measures

In addition to the corrective actions outlined above to address these issues at the times of occurrence, several preventive measures have been put in place in an effort to eliminate or limit downtime in similar future situations should they occur. An SME from DTE Energy's Environmental Management and Resources group gave detailed training to all plant supervising operators and other operations personnel to give them a better understanding of when to escalate these issues. Although work was ongoing on addressing the May/June issue, had the SMEs been brought in more quickly to the investigation, some downtime could have been avoided and the issue resolved sooner.

After these incidents, the DAHS was also equipped with new software which includes the capability to send email notification of alarms. This allows SMEs and other staff who are not at the plant actively monitoring the system to be notified of downtime and other events. Proactive steps can be taken to support the plant personnel rather than waiting to be notified by the plant. Some alarm descriptions were also changed to include the escalation level of the alarm which helps plant personnel determine when alarms may need further help to address.

As always, DTE Energy is committed to maintaining compliance with all regulations, permit requirements and limits. DTE Energy is confident that the causes of the issues which resulted in the downtime associated with this VN have been addressed. We strive to continuously improve our CEMS and monitoring program to ensure that accurate readings are maintained and downtime is avoided.

If you have any questions or would like further information, please contact Ms. Amanda Kosch by phone at (313) 297-8230 or email at koscha@dteenergy.com or me at (313) 235-5611 or mariettab@dteenergy.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Barry Marietta', with a long horizontal flourish extending to the right.

Barry Marietta
DTE Energy
Environmental Management & Resources

Cc (electronic):

Amanda Kosch, DTE Energy
Tom Durham, DTE Energy
Tom Batts, DTE Energy
Nazaret Sandoval, MDEQ