AK Steel Corporation 4001 Miller Road Dearborn, MI 48121-1699

TELEPHONE (313) 845-3217

James E. Earl **Environmental Alfairs Manager** Dearborn Works RECEIVED

November 25, 2015

Mr. Thomas Maza **Environmental Quality Analyst** Air Quality Division Detroit District Office Cadillac Place, Suite 2-300 3058 West Grand Blvd Detroit, MI 48202

Response of Violation Notice Subject: **AK Steel Dearborn Facility** 4001 Miller Road Dearborn, Michigan 48120-1699 SRN: A8640, Wayne County

Dear Mr. Maza,



AK Steel Dearborn Works (AK Steel) provides this response letter to address the alleged violations identified in MDEQ's violation notice dated November 9, 2015. The alleged violations are based on MDEQ's review of the 3rd Quarter 2015 C-Blast Furnace Stoves CEMS excess emissions report. Specifically, the MDEQ noted that the sulfur dioxide monitor downtime was reported to be 7.4% of the operating time for the quarter.

The downtime was the result of three separate events. The first event occurred from July 18 – July 22 and resulted in a total of 84.6 hours of monitor downtime. The downtime was caused by the failure of the CEMS sample conditioner. A replacement sample conditioner was ordered on July 19 and was installed on July 22 at which point the CEMS system was brought online. The second event occurred on August 7 and resulted in 3.0 hours of downtime. The downtime was caused by a malfunction of the CEMS data logging device. The malfunction was recognized by the CEMS instrument technician during the daily CEMS check. The data logging device was rebooted and the CEMS system was brought back online. The third event occurred from September 20 - September 22 and resulted in 57.0 hours of CEMS downtime. The downtime was caused by the failure of a peristaltic pump which prevented moisture from being removed from the system. The peristaltic pump was replaced on September 22 at which point the CEMS system was brought online.

Two main corrective actions have been implemented to minimize downtime. First, an audit was conducted on the CEMS spare parts list to identify potential gaps. The list was updated to include all components of the sample conditioner. The CEMS maintenance procedure was updated to require an annual inventory of all CEMS spare parts. At this time, all items on the spare parts list are on hand at the facility, have been ordered, or are in the process of being ordered. Second, alarms were created to give a real-time indication of when a problem occurs with the CEMS system. An analysis of the downtime revealed that approximately 76.6 out of the 144.6 hours of downtime were due to not promptly identifying the exact cause of the downtime in order to efficiently implement appropriate corrective actions. In the case of the September 20 – September 22 event, the problem was identified on September 20. However, the root cause of the problem was not identified until September 22. The alarms will enable key personnel to become involved in the troubleshooting process to ensure a quicker resolution to the problem. As of October 28, the new alarms have been implemented.

DEC - 1 2015

Air Quality Division **Detroit Office**

Mr. Thomas Maza November 25, 2015 Page 2 of 2

AK Steel believes that for the remainder of the downtime (68 hours) in the 3rd quarter, the response time and the actions taken to correct the down time were conducted appropriately.

As a measure of the effectiveness of the corrective action implemented, as of November 23 for the 4th quarter, the stoves CEMS has been in operation for 99.7% and the baghouse CEMS has been in operation for 99.2% of the C-Blast Furnace operating time. It should be noted that AK Steel believes that the events that occurred during the third quarter constituted extremely unusual circumstances and that even with the third quarter downtime included, the operating time year to date for the baghouse and stoves CEMS has been 98.2% and 96.2% respectively. In addition, SO₂ emissions have been well below permitted levels for the year to date and no exceedances of the daily emission limit have occurred.

Note that AK Steel does question whether all of the monitor downtime noted in the third quarter CEMS report did in fact constitute noncompliance with the permit. The violation notice alleges a violation of the permit term that requires that "the permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the SO₂ emissions and flow from each EUCFURNACE baghouse stack and stove stack on a continuous basis." Likewise, Appendix 1.3.2 requires compliance with 40 C.F.R. 60.13(e), which states that "except for system breakdowns, repairs, calibrations checks, and zero and span adjustments, . . . all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows . . ." Thus, the permit term at issue requires monitoring on a "continuous basis," however that obligation is qualified by the fact that the requirement to operate the monitor must just be done "in a satisfactory manner." In AK Steel's opinion, operation "in a satisfactory manner" would exclude circumstances such as system breakdowns and repairs. AK Steel believes that much of the monitor downtime at issue was caused by system breakdowns and repairs, and therefore that the monitor did in fact "operate in a satisfactory manner."

If you have any questions regarding the provided information or require additional information, please contact me at 313-845-3217.

Sincerely, James E. Earl

Environmental Affairs Manager AK Steel Dearborn Works

cc. L. Combs P. Gallo

- N. Kohlhas
- D. Miracle
- D. Pate
- D. Pate