AK Steel Corporation
4001 Miller Road
Dearborn, MI 48120-1699

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Nicholas Kohlhas
General Manager
Dearborn Works

July 15, 2016

Ms. Katherine Koster
Senior Environmental Engineer
Air Quality Division
Detroit District Office
Cadillac Place, Suite 2-300
3058 West Grand Blvd
Detroit, MI 48202

Subject: Response of Violation Notice Dated July 1, 2016 – C Blast Furnace Relief Line Stack
AK Steel Dearborn Facility
4001 Miller Road
Dearborn, Michigan 48120-1699
SRN: A8640, Wayne County

Dear Ms. Koster:

AK Steel Dearborn Works (AK Steel) provides this response letter to address the alleged violations identified in MDEQ's violation notice dated July1, 2016. The alleged violations are based on visible emissions observations conducted by Mr. Jonathan Lamb of the MDEQ on the C-Blast Furnace Relief Line on June 18, 2016. The NOV alleges a total of 11 6-minute opacity averages in excess of 20% opacity between 10:00 AM and 11:30 AM.

The cause of the emissions was a malfunction of the hydraulic pumping system at the top of the furnace at approximately 9:15 AM. The system consists of two pumps, a primary pump and a supplementary pump that will activate either when hydraulic pressure is low or when the primary pump fails. The pumps actuate all furnace top hydraulics including the raw material feed hopper and pressure relief valves to the hoppers. In this case, the secondary pump failed shortly after it came on as the back-up to the primary pump. The lack of hydraulic pressure allowed the lower hopper seal and relief valves to drift open. This caused emissions to escape through the upper seal valves and relief lines. Wind was immediately reduced to the furnace and maintenance personnel initiated repairs to the pump system. One of the two hydraulic pumps was partially back in operation by approximately 10:00 AM. The second pump was back in service by approximately 1:00 PM.

The cause of the pump failures was that the set screws on both pumps had loosened and backed out of the connecting coupling. This caused damage to the rubber insert between the couplings which caused the pumps to fail. Two primary corrective actions have been implemented. First, a popup alarm was created for low hydraulic pressure to allow quicker notification to appropriate personnel of potential problems with the hydraulic system. Second, the inspection records for the hydraulic pumps were reviewed. The weekly inspection form consisted of a running inspection of the pump motor but did not require an inspection of the coupling. Specific instructions were added to the form requiring a detailed inspection of the coupling assembly while the motor is in standby.

As a follow-up, the furnace was down for approximately 6 hours on Monday, June 20. During that time, the work completed on June 18 was re-examined. The hopper valves and seals were also checked for proper operation. Observations conducted by Environmental Affairs indicated

that all aspects of the system were operating properly and that no excess emissions were present.

Note that AK Steel does question the alleged number of exceedances of the 20% limit. AK Steel calculated that the number of 6-minute averages above 20% opacity was nine. In addition, according to G.C. 11 of ROP MI-ROP-A8640-2016, a violation of the permit consists of "a 6 minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27% opacity." Each hour observed did contain a 6-minute opacity average that was above 20% but less than 27%. Therefore, AK Steel believes that the number of actual alleged exceedances is seven and not eleven.

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

Sincerely,

N. Kohlhas

Nicholas Kohlhas
General Manager, Dearborn Works

cc. L. Combs
J. Earl
D. Miracle
D. Pate