United States Steel Corporation – Midwest Plant
U. S. Highway 12
Portage, IN 46368

VIA ELECTRONIC SUBMITTAL

May 14, 2019

Mr. Nicholas Ream
Office of Water Quality
Indiana Department of Environmental Management (IDEM)
100 North Senate Avenue – Post Office Box 6015
Indianapolis, IN 46206

Subject: United States Steel Corporation – Midwest Plant
NPDES Permit IN0000337
Discoloration at Outfall 004

Dear Mr. Ream:

This letter is the written five-day submission regarding discoloration at Outfall 004 at the U. S. Steel Corporation – Midwest Plant ("Midwest") which occurred on Thursday May 9, 2019. Outfall 004 is a permitted outfall to the Portage-Burns Waterway under NPDES Permit IN0000337 effective April 1, 2016. Outfall 004 sources includes the Final Treatment Plant (internal Outfall 104), the Chrome Treatment Plant (internal Outfall 204) as well as non-contact cooling water and stormwater runoff. As described below, the discoloration was found to be due to increased suspended solids that discharged via the Final Treatment Plant. The discoloration did not contain, nor was it caused by, any form of chromium.

A U. S. Steel wastewater treatment operator (operator) observed a turbid discoloration at the influent to Final Treatment at approximately 7:45 am on May 9, 2019. U. S. Steel operations management was immediately notified of the conditions. At approximately 8:50 am management began to notice suspended solids discharging from Final Treatment. At approximately 9:07 am, Midwest Environmental (Environmental) was notified to inspect and confirm the outfall appearance. Environmental called Nick Ream (Industrial Wastewater Inspector) from IDEM at 9:40 am to report a discoloration of the treatment plant effluent, then notified the National Response Center at approximately 10:09 am. The calls to both the National Response Center (NRC) and the Indiana Department of Environmental Management (IDEM) were per the current draft of the Operations and Maintenance Plan Appendix B for a non-compliance with the narrative standards of the NPDES permit. In addition to the oral notifications to IDEM and the NRC, U. S. Steel supplied a press release to notify the general public of the incident.

Nick Ream and Dave Greinke (Emergency Responder), from IDEM, arrived on site at approximately 10:30 am on May 9, 2019 and visually observed the area. A boom was deployed

around the Outfall 004 discharge in Burns Waterway. The boom remained in place until it was removed on May 13, 2019. The discoloration ceased by approximately 12:30pm on May 9th. IDEM personnel who had left returned at approximately 1:30 pm to observe the outfall again later that day.

U. S. Steel personnel began an investigation immediately upon discovery of the issue. The Final Treatment Plant's western settling basin was out of service for regularly scheduled cleaning and maintenance. All Final Treatment Plant flow was directed through the eastern settling basin which reduces the typical retention time for settling. During normal mill operating conditions, the reduced retention time is sufficient, however temporary changes in the mill operations can result in a further reduced margin of capacity when a basin is out of service.

During the investigation U. S. Steel discovered that a leak had originated from the non-chromium plating section of the Tin Line earlier in the day. A roll seal leaked cleaning solution into a sump below the line that is designed to discharge to the Final Treatment Plant. The leak was discovered after a conductivity alarm was triggered in the sump. The line was shutdown and the seal was repaired. The line was returned to operation; however, the conductivity alarm was triggered again. U. S. Steel shut the Tin Line down again along with the line's associated sump pumps. Final Treat was allowed to return to normal operating conditions, and the sumps were pumped down in a controlled manner later throughout the day to provide the solids sufficient settling time based on loading. The Tin Line was returned to operation at approximately 7:00pm on May 9th.

On May 9th Nick Ream of IDEM requested via email that U. S. Steel perform additional sampling and analysis of requested parameters at Outfalls 004, 104 and 204 using a third-party laboratory. The monitored parameters at Outfall 104 and 204 are added together for an effective discharge to Burns Waterway via Outfall 304. U. S. Steel is waiting on the laboratory's analysis completion, but data collected on May 9th via grab sampling and/or composite sampling, were within normal discharge range and were below effluent limits in compliance with the NPDES permit requirements. Chloride and mercury results are still pending from May 9th. Hexavalent chromium was non-detect as expected. Therefore, there was no exceedance of effluent limitations and only a non-compliance with the narrative standards. U. S. Steel will submit the analysis data in a follow up letter once all data has been received.

U. S. Steel continues to emphasize the importance of reacting to any alarms and implementing corrective actions with Midwest's operations management team, particularly during times of wastewater treatment plant maintenance. If you have any questions about this matter, please call me at (313) 749-3900 or email me at APiscitelli@uss.com.

Sincerely,

Alexis Piscitelli
Director – Environmental Compliance
United States Steel Corporation
Great Lakes Works, Midwest Plant

cc: David Greinke, IDEM
Tom Martin, EPA
Tim Sullivan, U. S. Steel
Eric Williams, U. S. Steel
Nicole Benoit, P.E., U. S. Steel
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