

**United States Steel Corporation  
Midwest Consent Decree  
September 13, 2019 Semi-Annual Report**

This is the third semi-annual progress report that satisfies Section VIII Paragraph 18 of the Midwest Consent Decree (effective date March 1, 2018) which states the following:

***“U. S. Steel shall submit a semi-annual progress report no later than March 15 and September 15 of each year, with the first semi-annual report due on the first March 15 or September 15 that occurs more than ninety (90) Days after the Effective Date. Each semi-annual report shall contain the following information with respect to, respectively, the half-year between July 1 and December 31, or the half-year between January 1 and June 30, commencing on the date of Entry of the Consent Decree:”***

This semi-annual progress report covers the time period between January 1, 2019 and June 30, 2019.

- a) ***Identification of Work performed and progress made toward implementing the requirements of Section VI (Compliance Requirements), including a narrative description of activities undertaken, the status of any construction or compliance measures, and the completion of any milestones;***

Section VI, Paragraph 9.a-d items are complete.

Section VI, Paragraph 10.a-d items are complete.

As per Section VI, Paragraph 10.e, the results of the annual review and revisions to the O&M Plan are documented in a revision log contained within the O&M Plan.

As per Section VI, Paragraph 10.f, at the time of the next NPDES renewal application, U. S. Steel will request that the renewed permit include the requirements to develop, implement, and review the O&M Plan pursuant to Paragraph 10(a) – (e) of the Consent Decree.

Section VI, Paragraph 11.a-d are complete.

As per Section VI, Paragraph 11.e, U. S. Steel is maintaining the results of the enhanced wastewater process monitoring in accordance with its NPDES Permit.

Section VI, Paragraph 12.a item is complete. The Paragraph 12.b item will be included at the time the NPDES permit renewal application is submitted.

- b) ***Any significant problems encountered or anticipated in complying with the requirements of Section VI (Compliance Requirements), including implemented or proposed solutions;***

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The Chemsan inline hexavalent chromium monitoring trials at the Final Treatment Plant, Chrome Treatment Plant and heat exchangers determined that the units are not capable of the required detection limits or general accuracy to identify possible permit exceedances at these locations. See the Enhanced Monitoring Assessment Summary attachment for details at each location.

- c) *Identification and description of all non-compliance with any of the requirements under Section VI (Compliance Requirements), including description of the likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such noncompliance;***

There were no issues of non-compliance with any of the requirements under Section VI (Compliance Requirements) of the Consent Decree from the period of January 1, 2019 through June 30, 2019.

- d) *A statement of any exceedances of its NPDES Permit limitations;***

There were no NPDES Permit limitation exceedances at the Midwest Plant for the period of January 1, 2019 through June 30, 2019.

- e) *A summary of any spills and unpermitted Discharges occurring within the reporting period, and reported pursuant to the requirements included in Appendix B of this Decree, including the actual or estimated frequency, duration, and volume of each spill, unpermitted discharge or Permit limit exceedance; and***

There were no spills that occurred at the Midwest facility between January 1, 2019 and June 30, 2019.

During the period of January 1, 2019 through June 30, 2019, there was one incident that resulted in a violation of the narrative water quality standards at Outfall 004. The incident occurred on May 9, 2019. See the attached 5-day letter, which details our investigation into the cause of the incident. Refer to IDEM's Virtual File Cabinet for additional inspections and documentation prepared by IDEM related to this incident. No unauthorized or bypassed material was released from the facility.

- f) *The results of any O&M Plan review, conducted pursuant to paragraph 10, completed within the reporting period.***

Revisions to the O&M plan during this report period were made to address items found in the annual review as well as incorporating the additional enhanced wastewater monitoring equipment. The O&M revision log is attached to this report and below is a summary of the revisions made.

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04/15/2019 revision (Annual Review)

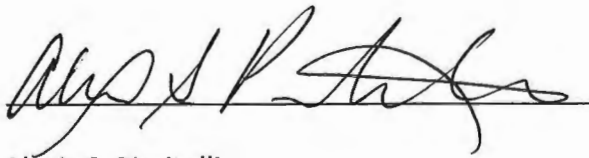
- Appendix III – updated lab certifications

05/28/2019 revision

- Distribution log – Updated to reflect one electronic copy on network drive
- II.C.5 & II.D.5 – Incorporated enhanced wastewater process monitoring equipment
- III – Calibration of flow meters

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

Signature:



Name: Alexis S. Piscitelli

Title: Director, Environmental, Great Lakes and Midwest

Date: September 13, 2019



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 9<sup>th</sup>. 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 9<sup>th</sup>.

On May 9<sup>th</sup> 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 9<sup>th</sup> 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 9<sup>th</sup>. 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  
David Shelton, U. S. Steel



