

EXHIBIT 2

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF INDIANA
HAMMOND DIVISION

UNITED STATES OF AMERICA)	
and the STATE OF INDIANA,)	
Plaintiffs,)	
)	Case No. 2:18 cv-00127
v.)	
UNITED STATES STEEL CORPORATION,)	
Defendant.)	

Declaration of Kimberly Siemens

I, Kimberly Siemens, Professional Engineer, hereby declare and say:

1. The statements in this declaration are based on my 16-year career as a consulting engineer, specifically as a Water Resources Engineer with CDM Smith, including my experience reviewing NPDES permit requirements, conducting analyses of receiving water quality data, and assessing Clean Water Act compliance as part of water quality planning and modeling projects and Total Maximum Daily Load studies in Wisconsin, Illinois, Michigan, California, and Texas.

2. I received an M.S. Environmental Engineering, from Tufts University in 2003, and a B.S. Environmental Engineering, from Tufts University in 2001.

3. I have reviewed NPDES Permit No. IN0000337 (“Permit”), as it has been in effect since April 1, 2016, and I am thoroughly familiar with its terms.

4. I have also reviewed all of the “Consent Decree Archived Documents” posted, as of the date of this declaration, at <https://www.in.gov/idem/cleanwater/2582.htm>, the “U. S. Steel Consent Decree” documents posted, as of the date of this declaration, at <https://www.in.gov/idem/cleanwater/2538.htm>, and all documents related to the U. S. Steel Portage facility (“Facility”) posted on IDEM’s Virtual File Cabinet website

(<https://vfc.idem.in.gov/DocumentSearch.aspx?xAIID=14435>) as of the date of this declaration and dating back to April 2017.

5. Based on my review of the above-referenced documents, the incidents that have occurred at the subject Facility since the April 2017 spill at issue in the Governments’ case, and my understanding of the Facility, it is my opinion that the Revised Consent Decree will not bring the Facility into compliance with the Clean Water Act or the Permit.

6. Since December 28, 2018, the date on which USEPA and IDEM approved U. S. Steel’s revised O&M and PM Plans and Enhanced Wastewater Process Monitoring Design, the Facility has sustained at least the Permit violations in the following table. In the table, I have identified the date of each post-December-28-2018 Permit violation known to me, the nature of the violation, and the provision of the permit violated. Insufficient information is available to identify the causes of every violation; however, where applicable, the plan or design whose deficiency or deficiencies is either the cause, or a cause, of the violation is enumerated below.

Date of NPDES Permit Violation	Nature of Permit Violation	Permit Provision Violated
May 9, 2019	Turbid, discolored discharge due to increased suspended solids from Final Treatment Plant	Part I.B.1(a-c) Part II.A.2 Part II.B.1
August 8, 2019	Discharge of oil sheen at Outfall 004	Part I.B.1(b-c)
August 20, 2019	Discolored discharge at Outfall 004	Part I.B.1(b-c)
August 29, 2019	Exceedance of daily max copper concentration at Outfall 004	Part I.A.3
September 6, 2019	Discharge of oil sheen at Outfall 004	Part I.B.1(b-c) Part II.B.1

Date of NPDES Permit Violation	Nature of Permit Violation	Permit Provision Violated
September 7, 2019	Exceedance of daily max copper concentration at Outfall 004	Part I.A.3
October 13, 2019	Exceedance of daily max copper concentration at Outfall 004	Part I.A.3
October 30, 2019	Exceedance of daily loading for hexavalent chromium at Outfall 304	Part I.A.5
November 21, 2019	Discolored discharge due to “solids and small amounts of sheen” observed at Outfall 004	Part I.B.1(a-c)

7. The Permit violations that occurred on May 9, September 6, and October 30, 2019 relate, partially or completely, to basic deficiencies in U. S. Steel’s O&M and PM Plans, which were approved by USEPA and IDEM on December 28, 2018. More specifically:

- a. The May 9, 2019 violation indicates U. S. Steel’s failure to conduct routine inspections, lack of adequate treatment plant capacity during routine maintenance activities, lack of training (operators did not know treatment train capacity and were unable to estimate quantities of discharged pollutants), and missing or unavailable standard operating procedures (the operator could not locate the standard operating procedure for pH calibration when asked by an IDEM inspector). In addition, in the October 30, 2019 Notice of Violation regarding this violation, IDEM states that U. S. Steel failed to maintain equipment in working order by having the western treatment train off-line for cleaning and maintenance, thus likely causing or contributing to the violation.

- b. The September 6 violation is believed to have been caused by an in-plant spill of coating oil, according to on-site staff (IDEM Inspection Summary Letter dated September 30, 2019). IDEM also states that U. S. Steel failed to properly maintain the API separators. IDEM inspectors noted oil on both sides of the Final Treatment Settling Tanks, which IDEM believes may have been attributed to U. S. Steel's failure to properly maintain the API separators.
- c. The October 30 violation indicates a plugged pH monitoring line and that the operator failed to follow standard operating procedures (SOPs) requiring manual pH readings. Had the operator followed the SOPs, the incorrect pH value likely would have alerted operators to the need for further investigation. Since the incident, U. S. Steel has "institute[d] a temporary work instruction that requires the operators to record pH and other relevant information once per hour." (U. S. Steel November 8, 2019 5-Day Letter).
8. The October 30, 2019 Permit violation referenced in the table above also reveals that the early detection system installed by U. S. Steel as part of its USEPA- and IDEM-approved enhanced wastewater process monitoring design failed to detect a hexavalent chromium leak prior to discharging hexavalent chromium from Outfall 304 in violation of the Permit. A component of the early detection system installed by U. S. Steel monitors turbidity in the discharge channel of each of the three Chrome Plant lamella filters. Turbidity is not an indicator of elevated soluble hexavalent chromium because turbidity is a measure of solid material.
9. The May 9, 2019 Permit violation referenced in the table above also indicates that U. S. Steel failed to immediately monitor for affected parameters after a discharge. Part II.A.2 of the NPDES permit requires the permittee to conduct accelerated monitoring for the affected

parameters during periods of non-compliance. According to the IDEM Notice of Violation dated October 31, 2019, U. S. Steel delayed sampling for likely pollutants at the time the incident was first observed and did not commence monitoring until IDEM requested pollutant sampling.

10. The May 9, 2019 Permit violation referenced in the table above also indicates that the subject Facility may be undersized to handle the foreseeable condition that portions of the treatment train are out of service for planned or unplanned maintenance. U. S. Steel has not supplied adequate information for a subject matter expert to evaluate whether the violation was caused by inadequate capacity or other operation and maintenance issues.

11. The number of violations of the Facility's Permit since the April 2017 spill that led to the Revised Consent Decree — both for total chromium and hexavalent chromium and for other parameters — likely indicates O&M, PM, wastewater process monitoring design, and other issues at the Facility that will likely continue to cause violations of the Permit in the future, even with full compliance with the Revised Consent Decree.

12. As a result, it is not reasonable to expect that compliance with the Revised Consent Decree will result in ongoing compliance with the Permit.

13. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on December 19, 2019.



Kimberly Siemens, PE*
Water Resources Engineer
*Registered in Wisconsin