

## REGION 5 Enforcement and Compliance Assurance Division

### Clean Water Act (CWA) INSPECTION REPORT

Inspection Entry Date/Time:	October 26, 2022 9:00 AM	Announced: Yes
Inspection Exit Date/Time:	October 27, 2022 1:30 PM	Access: Granted
Statute(s)/Program(s):	Clean Water Act – National Pollutant Discharge Elimination System (NPDES), Industrial Wastewater	
In-Person Inspection:	Yes	
Facility Name:	Cleveland-Cliffs Steel, LLC – Indiana Harbor East	
System Physical Address:	3210 Watling Street	
(City, state, zip code)	East Chicago, IN 46312	
County/Borough/Parish:	Lake County	
System GPS Coordinates:	41°39'16.05"N, 87°26'50.35"W	
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NPDES Permit No.:	IN0000094	
Primacy Agency:	Indiana Department of Environmental Management (IDEM)	

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Cleveland-Cliffs Steel, LLC – Indiana Harbor East  
Inspection Dates: October 26, 2022 to October 27, 2022

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## SECTION I – INTRODUCTION

On October 26 and 27, 2022, representatives from U.S. Environmental Protection Agency (EPA) Region 5 and EPA contract inspectors from PG Environmental (hereinafter, the EPA Inspection Team), conducted a compliance evaluation inspection at the Cleveland-Cliffs Steel, LLC – Indiana Harbor East steel mill facility in East Chicago, Indiana (hereinafter, Facility). Staff from the Indiana Department of Environmental Management (IDEM) also attended the inspection to observe and receive on the job training.

Cleveland-Cliffs Steel, LLC – Indiana Harbor East (Cleveland-Cliffs) is identified as the Permittee and owns and operates the Facility. Cleveland-Cliffs employs a wide variety of subcontractors to provide support for specific operations throughout the Facility. These organizations are discussed where applicable in this report.

The purpose of the inspection was to review basic industrial processes at the Facility, evaluate wastewater conveyance and treatment operations, review the accuracy and reliability of the Permittee's self-monitoring and reporting program, and obtain information that will assist EPA in assessing the Permittee's compliance with the requirements of its National Pollutant Discharge Elimination System (NPDES) permit. The weather at the time of the inspection was cold and sunny.

### NPDES Permit

The Permittee's activities are regulated under NPDES Permit No. IN0000094 (hereinafter, Permit), which became effective on July 21, 2017, expired August 31, 2022, and was administratively extended at the time of the inspection. The Permit was modified and amended in December 2018 and May 2021. The Facility submitted a Permit renewal application in March 2022. The Facility was also under consent decree from EPA (Civil Action H90-0328; refer to [Appendix A](#)) and a September 2021 Agreed Order from IDEM (refer to [Appendix B](#)). Permit compliance was evaluated through interviews with Facility staff, records review, and an onsite inspection of the Facility's treatment trains, monitoring locations, and laboratory facility. These activities are discussed in more detail in the *Facility Description* and *Facility Walkthrough* sections of this report. Documentation of the records reviewed for the inspection is included in the *Records Review* section of this report.

### Facility Description

Cleveland-Cliffs Steel LLC – Indiana Harbor East is an over 2,000-acre integrated steel-making facility located on the Indiana Harbor Ship Canal and the south shore of Lake Michigan. As part of the inspection, the EPA Inspection Team reviewed basic industrial processes, treatment systems, and sampling and analysis protocols with Facility personnel.

#### Industrial Processes

Steel-making operations at the Indiana Harbor East location include blast furnaces, basic oxygen furnaces, ladle metallurgy facilities and vacuum degassing operations, continuous casting machines, slab dimensioning, an 80-inch hot strip mill, pickling line, tandem mill, annealing line, a temper mill, hot-dip galvanizing lines, and a recycling plant. Facility representatives noted that the No. 5 Galvanizing Line had been idle for several years prior to the inspection. At the time of the inspection, all galvanizing was occurring at the Indiana Harbor West

facility, which is covered by a separate NPDES permit. Water to support the steel making process is pulled directly from Lake Michigan through two intakes (Main Intake and No. 7 Intake).

### Process Water/Wastewater Treatment

The Facility is supported by multiple wastewater treatment systems, including three main process wastewater terminal treatment plants (North, East, and West), the No. 7 Blast Furnace Blowdown Treatment System, the No. 4 Steel Plant Treatment System, and three sanitary sewage wastewater treatment plants. According to Facility representatives, about 90 percent of treated process wastewater is recycled back into the Facility as process or cooling water. The Facility contracts with Nalco for treatment chemical supply and management on site.

Treated wastewater from the Facility is discharged through three outfalls to the Indiana Harbor Turning Basin at the south end of Lake Michigan. In addition to the Facility's three outfalls to receiving waters, the Facility also has two permitted internal outfall locations for monitoring discharges from the No. 7 Blast Furnace and the No. 4 Steel Plant. Facility outfalls are summarized in Table 1.

**Table 1. Outfall Summary\***

Outfall No.	Ave. Flow (MGD)	Max Flow (MGD)	Potential Discharges	Receiving Water
011	0.5	--	Non-contact cooling water, stormwater	Indiana Harbor Turning Basin
014	8.71	24.8	Treated process and sanitary wastewater, plant recycle system blowdown, stormwater	Indiana Harbor Turning Basin
018	20.4	25.4	Non-contact cooling water, treated process wastewater, cooling tower blowdown, stormwater	Indiana Harbor Turning Basin
518	0.115	0.250	Internal outfall for No. 7 Blast Furnace gas scrubbing system	Internal Outfall to 018
618	0.361	0.717	Internal outfall for No. 4 Steel Plant, vacuum degasser, and the No. 1 Continuous Caster process water systems	Internal Outfall to 018

\*Data from Cleveland Cliffs March 2022 permit renewal application

Sludge/solids and oil are removed at various locations throughout the treatment systems for disposal or reclamation. Cleveland-Cliffs contracts with Oil Tech for reclaiming and recycling oil from treatment processes to be used as a supplemental fuel source in the Facility's lime kiln. The Facility also utilizes Sandling for solids processing and disposal, including at the No. 4 Steel Plant and No. 7 Blast Furnace Blowdown treatment systems. Waste acid from the annealing process is collected by Republic and hauled offsite.

The *Facility Walkthrough* section of this report includes additional details related to each of the treatment systems reviewed as part of the inspection. Treatment system schematics showing treatment systems and contributing waste/process streams are included in [Appendix C](#).

The Facility, including wastewater treatment systems, is staffed 24 hours per day, 7 days per week (three shifts per day; 3,500-4,000 total staff for the entire site). The Facility employs one certified wastewater operator (Indiana Class D) that oversees all wastewater operations at the Facility. The certified operator is supported by other technical staff assigned to specific treatment systems around the Facility.

### Laboratory

The Facility has a certified onsite laboratory, which conducts all compliance analyses except for mercury, zinc, lead, and whole effluent toxicity (WET), which are contracted out. Mercury, zinc and lead are contracted to Microbac, and WET analyses are contracted to EnviroScience. The lab is overseen by the Laboratory Supervisor, Samantha Banks; the Laboratory Supervisor is supported by multiple technicians, responsible for collecting grab and composite samples for compliance and process control as well as running most of the onsite analyses. The onsite laboratory was current in its certification at the time of the inspection (A2LA Certificate No. 6271.01). As part of the inspection, the EPA Inspection Team reviewed laboratory data and associated records for the period of June 2022 through the date of inspection; no effluent limit exceedances were observed during the period of review. Observations related to the laboratory inspection are included in Observations 2 through 5 in Section III of this report.

## **SECTION II– INSPECTION ACTIVITIES**

The following subsections describe the inspection activities completed by the EPA Inspection Team.

### **Opening Conference**

The EPA Inspection Team arrived at the Facility, located at 3210 Watling Street, at 9:00 AM on October 26, 2022 for the inspection. Jake Albright and Sirese Jacobson presented their Clean Water Act inspector credentials to Facility representatives and informed them that this was an EPA Region 5 inspection to determine compliance with the Permit. The opening conference included a discussion of the Facility’s history and operational status at the time of the inspection. The EPA Inspection Team informed the Permittee during the opening conference that any information that the Facility deemed to be confidential business information (“CBI”) should be identified to EPA representatives during the inspection and it would be handled as CBI according to EPA’s CBI procedures.

### **Facility Walkthrough**

The EPA Inspection Team conducted the Facility walk through over the course of two days, October 26 and 27, 2022. Facility over maps and treatment process schematics are included in [Appendix C](#). The following locations/assets were observed (in chronological order of inspection):

#### Outfall 018 (October 26)

The EPA Inspection Team observed Outfall 018, located on the eastern side of the Indiana Harbor Turning Basin (refer to [Appendix D, Photographs 1 through 5](#)). The outfall receives flow from internal Outfalls 518 and 618 (i.e., No. 4 Steel Plant Treatment System and No. 7 Blast Furnace Blowdown Treatment System), as well as from boiler house operations, non-contact cooling water, cooling tower blowdown, and stormwater runoff. Observations related to receiving water conditions in the vicinity of the outfall as well as material storage practices (i.e., limestone) around the outfall vicinity are included in Observations 1 and 6 in Section III of this report. The compliance monitoring location for this outfall appeared representative of all flow being discharged.

#### No. 4 Steel Plant Treatment System and Outfall 618 (October 26)

The EPA Inspection Team observed the treatment system for the No. 4 Steel Plant, located approximately 1,500 feet northeast of Outfall 018 (refer to [Appendix D, Photographs 6 through 12](#)). The system includes grit removal, four scrubbers for furnace gas, three clarifiers, and three sand filters. Facility representatives stated that under normal operations, 30 percent of the flow from the filters is discharged to Outfall 018 and 70 percent is recycled back through the sand filters. In addition to physical treatment units, operators also utilize carbon dioxide, sulfuric acid, and polymer at various stages of the treatment train for pH control and to promote solids precipitation.

Effluent from the treatment system is discharged through internal Outfall 618, and ultimately through Outfall 018, to the Indiana Harbor Turning Basin. The compliance monitoring location for Outfall 618 appeared representative of all flow being discharged.

The No. 4 Steel Plant Treatment System has three filter presses for dewatering sludge pulled from the clarifiers. One filter press was down for repair at the time of the inspection. Facility representatives explained that the system can run on two presses; it was unclear at the time of the inspection when the third press would be put back into service. Filter press operations and solids disposal at the No. 4 Steel Plant were contracted to Sandling.

Observations related to vegetation in the clarifier weirs and a leaking clear well pump are included in Observation 7 in Section III of this report.

#### Terminal Wastewater Treatment Plant West (TTPW) and Outfall 014 (October 26)

The EPA Inspection Team observed Terminal Treatment Plant West and Outfall 014, located on the southeastern perimeter of the Indiana Harbor Turning Basin (refer to [Appendix D, Photographs 13 through 17](#)). The treatment plant receives process wastewater and sanitary wastewater and primarily consists of two sets of scalping tanks and settling basins (north and south). Polymer can be added between the scalping tanks and settling basins to promote solids precipitation. The majority of the flow from the treatment plant is recycled back to the steel making process through the No. 6 Pump House.

Sludge from both the scalping tanks and settling basins is removed and disposed of as needed, and oil is skimmed and processed by Oil Tech for reuse as fuel in the Facility's lime kiln.

Outfall 014 was located about 65 feet northwest of the treatment plant. The area along the turning basin in this area was bermed to protect from any potentially polluted runoff or spills/overflows. Discharges to Outfall 014 are primarily made up of blowdown from the Facility's master recycle system. The compliance monitoring location for this outfall appeared representative of all flow being discharged.

Observations related to a leaking pipe and treatment plant tank walls are included in Observation 7 in Section III of this report.

#### Terminal Wastewater Treatment Plant East (TTPE) (October 26)

The EPA Inspection Team observed Terminal Treatment Plant East, located on the south side of the Facility (refer to [Appendix D, Photographs 18 through 20](#)). The treatment plant receives process wastewater from the 80-inch Hot Strip Mill, No. 3 Cold Strip Mill, and the No. 5 Pickle Line, and primarily consists of two scalping tanks and three settling basins with a cooling tower in between the tanks and basins. Flows from the industrial

processes are pretreated prior to entering the treatment plant as follows, as described in Attachment 1 of the Facility's March 2022 Permit renewal application (refer to Appendix E, Exhibit 1):

- *The 80" hot strip mill is equipped with four scalping tanks and four large diameter clarifiers for preliminary removal of heavy solids and oil prior to discharge to the TTPE scale pits.*
- *No. 3 Cold Strip Mill process wastewaters (cold rolling, alkaline cleaning and hot coating line) are treated in a clarifier and a dissolved air floatation unit to remove emulsified oils and then are combined with 80" hot strip mill wastewater for additional treatment in large diameter clarifiers prior to discharge to the TTPE scalping tanks.*
- *Pickling rinse water from the No. 5 Pickle Line is neutralized with caustic at the No. 3 Cold Strip Mill neutralization facility prior to discharge to the TTPE scalping tanks. Rinse water from the [continuous annealing line] CAL line discharges directly to the TTPE scalping tanks.*

Discharges from the treatment plant are recycled back to the steel making process through the No. 6 Pump House and master recycle system.

Sludge from both the scalping tanks and settling basins is removed and disposed of as needed, and oil is skimmed and processed by Oil Tech for reuse as fuel in the Facility's lime kiln.

#### No. 6 Pump House/Main Intake (October 26)

The EPA Inspection Team observed the No. 6 Pump House and Main Intake location (refer to Appendix D, Photographs 21 and 22) where the Facility had experienced overflows/bypasses in April and May 2020 and May 2021. Specifically, during periods of heavy rain or reduced water needs in the plant (e.g., hot strip mill running at reduced capacity), treated process water had overflowed from the master recycle system into the intake, creating the potential for discharges from the terminal treatment plants to enter the sinter plant non-contact cooling water system line and be discharged from Outfall 011 instead of the permitted location at Outfall 014.

Part I.A.1 of the Permit states, "The discharge [at Outfall 011] is limited to the non-contact cooling water(NCCW) from the No. 2 AC Power Station, sinter plant non-contact cooling water; ground water and miscellaneous non-process discharges and storm water runoff through outfall 011 to the Indiana Harbor Turning Basin." The issue is included in IDEM's Agreed Order with the Facility, requiring corrective action (refer to Appendix C).

At the time of the inspection, the Facility had installed a valve to route excess flow directly to Terminal Treatment Plant West, minimizing the potential for an unauthorized discharged to Outfall 011. Facility representatives explained that at the time of the inspection, the valve was activated manually; however, they were working to automate it. Facility representatives explained no bypasses had occurred since May 2021.

#### No. 7 Blast Furnace Blowdown Treatment System and Outfall 518 (October 27)

The EPA Inspection Team observed the No.7 Blast Furnace Blowdown Treatment System, which consisted of a process wastewater influent pond system, cyanide precipitation in an 8,000-gallon tank with sulfuric acid and ferrous chloride, followed by pH adjustment (multiple locations), flocculation with polymer addition, clarification, multi-chamber breakpoint chlorination reaction process (dictated by oxidation reduction potential (ORP) probes), dechlorination with sodium bisulfite, and multimedia filtration (refer to Appendix D,



Photographs 23 through 30). Facility representatives explained that they were exploring options for increasing the cyanide precipitation tank to 20,000 gallons to increase treatment capacity for removing cyanide in the blowdown coming from the slag granulator.

Sludge from the blast furnace gas scrubber process is collected and dewatered via four filter presses (three in operation; one in standby), an operation contracted to Sandling. Dewatered sludge is sent to a landfill.

Effluent from the treatment system is discharged through internal Outfall 518, and ultimately through Outfall 018, to the Indiana Harbor Turning Basin. The compliance monitoring location for Outfall 518 appeared representative of all flow being discharged.

#### No. 7 Intake and Pump House (October 27)

The EPA Inspection Team observed the No. 7 Intake and pump house (refer to Appendix D, Photographs 31 through 33). The pump house included four large, 30,000 gallons per minute (gpm), intake pumps with dedicated screens. Only one pump was needed to operate at a time, with the remaining units in standby.

#### No. 3 Sewage Treatment Plant (October 27)

The EPA Inspection Team observed the No. 3 Sewage Treatment Plant, which is one of three sanitary sewage treatment plants located at the Facility (refer to Appendix D, Photographs 34 through 36). Sanitary sewage from the northern and eastern portions of the Facility are collected and enter the plant at the primary clarifier. After primary clarification, flow is sent to a trickling filter, then to the secondary clarifier before being discharged back to the Facility's master recycle system. Facility representatives explained that the other two sewage treatment plants are set up similarly to No. 3.

Observations related to plant maintenance are included in Observation 7 in Section III of this report.

#### Outfall 011 (October 27)

The EPA Inspection Team observed Outfall 011, located on the southwest perimeter of the Indiana Harbor Turning Basin (refer to Appendix D, Photograph 37). Facility representatives stated that Outfall 011 had primarily supported the sinter plant in the past, but the plant was idle at the time of the inspection. They explained that the only flow discharging from Outfall 011 at the time of the inspection was from stormwater, groundwater water, and lake water. Flow at the outfall was being estimated at about 0.5 million gallons per day (MGD) on average. Compliance monitoring was being conducted twice per week at the location via grab sample.

#### Laboratory (October 27)

In addition to wastewater treatment assets, the EPA Inspection Team also conducted an inspection of the Facility's certified onsite laboratory on October 27, 2022. As mentioned previously, the onsite lab conducts most compliance analyses, with the exception of mercury, zinc, lead, and WET testing. Observations related to the laboratory inspection are included in Observations 2 through 5 in Section III of this report.

## Records Review

The EPA Inspection Team conducted a records review to evaluate the Permittee's compliance with the Permit. Most of the records and reports required by the Permit were available for review during the inspection. Additional information was requested and provided electronically by the Facility during the week following the inspection. The following were reviewed:

- eDMR and compliance data included in EPA's Enforcement and Compliance History Online (ECHO) database
- Onsite laboratory bench sheets, lab equipment calibration records, and contract laboratory reports/chain of custodies (June 2022 through date of inspection)
- 2022 flow meter calibration records (Outfalls 014, 018, 518 and 618)
- Wastewater treatment system operator log examples (No. 7 and No. 6 Pump Houses, Terminal Treatment Plant West, No. 3 Sewage Treatment Plant, operator daily "Turn" reports)
- Facility Stormwater Pollution Prevention Plan (SWPPP; updated October 2021)
- Most recent quarterly SWPPP inspection report (September 28, 2022)
- Laboratory and operator certifications
- Wastewater treatment flow diagrams and site maps
- IDEM Compliance Evaluation Inspection Reports (September 2020 and January 2021)
- EPA 1993 Consent Decree
- IDEM 2021 Agreed Order
- Facility Permit renewal application (March 2022)

In addition to the records listed above, the EPA Inspection Team also requested the following documents relevant to the EPA consent decree (refer to [Appendix A](#)); however, they were unable to be provided (see Observation 8).

- Sampling and Laboratory Quality Control/Quality Assurance Program (includes a "Sampling and Lab Manual" and "Sampling and Lab Program"). 1993 CD Section V paragraph 2 to 9
- Corrosion Inhibitor Control Program. 1993 CD Section V paragraph 10 to 12
- A Revised Corrective Measures Plan (CMS) for Outfall 014. 1993 CD Section V paragraph 13 to 19
- Sanitary Waste Compliance Measures. 1993 CD Section V paragraph 61 to 71
- The Environmental Communications Program (ECP). 1993 CD Section V paragraph 72 to 77
- Plant-wide Visible Oil Corrective Action and Monitoring Plan. 1993 CD Section V paragraph 78 to 86

## Closing Conference

The EPA Inspection Team held a closing conference with Facility representatives at 1:00 PM on October 27, 2022. Representatives from IDEM also attended the closing conference. The EPA Inspection Team shared preliminary observations and reiterated that all preliminary observations discussed were not compliance determinations. Any and all preliminary observations shared were subject to further investigation by the EPA Inspection Team upon the additional review of records and documentation. Additional observations may be contained in this inspection report that were not identified at the time of the closing conference after the additional review of materials following the inspection.

Observations are described in Section III.

The inspection concluded at approximately 1:30 PM on October 27, 2022.

### **SECTION III– OBSERVATIONS**

The EPA inspection team identified the following observations based on the facilities inspected and review of documentation.

#### **Receiving Water Conditions**

**Part I.B of the Permit** states, “At all times the discharge from any and all point sources specified within this permit shall not cause receiving waters:

1. including the mixing zone, to contain substances, materials, floating debris, oil, scum, or other pollutants:
  - a. that will settle to form putrescent or otherwise objectionable deposits;
  - b. that are in amounts sufficient to be unsightly or deleterious;
  - c. that produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;
  - d. which are in amounts sufficient to be acutely toxic to , or to otherwise severely injure or kill aquatic life, other animals, plants, or humans;
  - e. which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.”

**Observation 1.** The receiving water was cloudy in the vicinity of Outfall 018 at the time of the inspection compared to conditions further out in the lake (refer to [Appendix D, Photographs 2 through 5](#)). Facility representatives stated that this was due to conditions (e.g., wind and recent precipitation) in Lake Michigan stirring up sediment on the bottom of the lake near the outfall. It was unclear whether discharges from Outfall 018 were also contributing to the observed conditions.

Additionally, photographs evaluated following the inspection showed sheen leaching out of the oil booms near where the Outfall 018 effluent area flows under the walkway and into the turning basin (refer to [Appendix D, Photograph 3](#)). This was observed after the inspection and not discussed at the closing conference.

A large stockpile of limestone was observed with portions beyond the concrete barrier containment, adjacent to and entering the Outfall 018 discharge area (refer to [Appendix D, Photograph 5](#)). Refer to Observation 6 for further details.

#### **Sampling and Laboratory Analysis**

**Part I.C.4 of the Permit** states, “The analytical and sampling methods used shall conform to the current version of 40 CFR 136. Multiple editions of Standard Methods for the Examination of Water and Wastewater are currently approved for most methods, however, 40 CFR Part 136 should be checked to ascertain if a particular method is approved for a particular analyte... However, different but equivalent methods are

allowable if they receive the prior written approval of the Commissioner and the U.S. Environmental Protection Agency.”

**Observation 2.** The Facility was not documenting analysis time for all pH analyses to verify all analyses occurred within the required 15-minute holding time. Specifically, laboratory personnel were conducting multiple pH analyses per sample, but only documenting the time of the first analysis (refer to Appendix E, Exhibit 2).

Additionally, laboratory staff were not documenting the time of pH meter calibration to show that calibration occurred prior to analysis (refer to Appendix E, Exhibit 2).

**Observation 3.** Laboratory staff were only documenting sample collection time for composite samples and were not documenting composite sample start times (refer to Appendix E, Exhibit 3). Facility representatives stated composite samples always start at 4:00 a.m. the day before sample collection; however, the EPA Inspection Team could not verify a full 24-hour composite sample was conducted through the recordkeeping.

**Observation 4.** Compliance sample and analysis standards refrigerator holding temperatures were documented as above 6 degrees Celsius for multiple days in August 2022 for the Room 122 and Room 125 refrigerators (refer to Appendix E, Exhibit 4), compromising sample and reagent quality during the affected dates (August 2, 4, 10, 11, and 22, 2022). Facility representatives explained this was due to an air conditioning failure in the lab building during the month, raising temperatures in the building and putting stress on the refrigerators.

**Observation 5.** Old labels documenting critical dates (e.g., receipt, service, calibration, expiration) were observed on multiple chemical bottles/containers and pieces of equipment in the onsite laboratory. In some cases, there were multiple sets of stickers with different dates on a single bottle (refer to Appendix D, Photographs 38 through 40). This could create confusion as to when something was put into service, calibrated, or expires.

#### **Stormwater Pollution Prevention and Good Housekeeping**

**Part I.E.4.b of the Permit** states, “Keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals, store materials in appropriate containers, identify and control all on-site sources of dust to minimize stormwater contamination from the deposition of dust on areas exposed to precipitation, and ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged.”

**Observation 6.** Portions of the limestone stockpile stored on the north side of the Outfall 018 discharge area were beyond the concrete barricade containment and berm, with material observed at the edge and beyond the banks of the receiving water, entering the area near the Outfall 018 discharge pipe (refer to Appendix D, Photograph 5). Section 5.2.3 of The Facility’s SWPPP states:

*Storm water runoff from this drainage area does not have a defined outfall.  
Therefore, discharges into the Turning Basin occur as diffuse sheet flow. Storm*

*water from this drainage area potentially contributes suspended solids to the Turning Basin. Other potential pollutants of concern are limestone and metals.*

*The pile size and the semi-continuous operations of loading, unloading, distributing, and consolidating the materials render covering the piles impracticable. Appropriate storm water management controls that have been implemented within SW-3 are given in Table 5d. Indiana Harbor East employs proper material unloading and loading practices. The storage piles are consolidated to reduce the potential for contact with storm water.*

*The following engineering controls have been implemented to minimize storm water pollution during storm events:*

- *Storage piles are located at least 15 feet away from the dock face to reduce the potential for storm water runoff.*
- *A slag berm lined by concrete highway barriers exists along at the east end of SW-3 to prevent storm water discharge.*
- *At the west end of SW-3, the dock is sloped away from the Turning Basin and toward a storm water retention basin.*

The SWPPP does not appear to address specific controls to be implemented on the south side of the stockpile (refer to Appendix E, Exhibit 5).

### **Proper Operation and Maintenance**

**Part II.B.1 of the Permit** states, “The permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for the collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of this permit in accordance with 327 IAC 5-2-8(9).”

Neither 327 IAC 5-2-8(9), nor this provision, shall be construed to require the operation of installed treatment facilities that are unnecessary for achieving compliance with the terms and conditions of the permit.”

**Observation 7.** Operations and maintenance observations made during the inspection include:

- Vegetation was observed in the north clarifier of the No. 4 Steel Plant Treatment System (refer to Appendix D, Photograph 7). Vegetation in clarifier weirs prevents water from evenly distributing and may cause short circuiting of the treatment system.
- The No. 8 Clear Well Pump for the No. 4 Steel Plant Treatment System was leaking (refer to Appendix D, Photograph 8) partially treated wastewater/process water onto the operational deck.
- Leaks were observed in piping and the North Settling Basin wall at Terminal Treatment Plant West (refer to Appendix D, Photographs 14 and 15). These leaking assets created a situation where not all flow was undergoing the full treatment process prior to leaking into the effluent channel. Facility representatives noted that the Facility had planned to replace the leaking tank walls but were having difficulty getting enough concrete for the job.
- Vegetation was observed in the secondary clarifier at the No. 3 Sewage Treatment Plant (refer to Appendix D, Photograph 34). Algae was also observed in the weirs of the primary clarifier at the No. 3 Sewage Treatment Plant (refer to Appendix D, Photograph 36). Vegetation in clarifier weirs prevents water from evenly distributing and may cause

short circuiting of the treatment system. Facility representatives stated they performed maintenance as needed and that discharges go to the main plant recycle system.

**Consent Decree Requirements and Reporting**

EPA's Consent Decree (Civil Action No. H90-0328; 1993; refer to Appendix A) requires the Permittee to develop, implement, and annually review several plans to comply with the multiple environmental regulatory statutes it is subject to. Plans required to be developed and implemented for Clean Water Act compliance include, but are not limited to:

- Sampling and Laboratory Quality Control/Quality Assurance Program
- Corrosion Inhibitor Control Program
- Corrective Measures Plan (CMS) for Outfall 014
- Sanitary Waste Compliance Measures
- The Environmental Communications Program (ECP)
- Plant-wide Visible Oil Corrective Action and Monitoring Plan

**Observation 8.** As part of the inspection process, the EPA Inspection Team requested the above referenced documents; however, the Permittee was unable to provide them following the onsite inspection. Specifically, the Permittee sent an email response to the EPA Inspection Team on November 4, 2022, stating:

*“Regarding the Consent Decree, these documents were previously provided to EPA in 1993-1994. The actions in these Plans are reported to the EPA quarterly. The most recent quarterly report is located in the zip folder - “CCIH 3Q22 Consent Decree Report”. The initial documents were sent 29 years ago, prior to our digital file storage system, and are no longer available.”*

While these plans may have been initially submitted in 1993-1994 and progress is included in quarterly reports, the Consent Decree requires each one of these plans to be reviewed and revised annually as needed. The Consent Decree further states that the Permittee shall submit revised plans to EPA annually with that year's first quarterly report. It is unclear if this has ever happened.

Further, the documents described above include elements/programs meant for ongoing implementation. Without the written plans/programs as a reference, proper implementation cannot be evaluated.