



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

October 13, 2021

Via Email to: hladislav@uss.com
Mr. Ladislav Halaj, Plant Manager
US Steel, Midwest Plant
6300 US Highway 12
Portage, Indiana 46368

Dear Mr. Halaj:

Re: Inspection Summary/ Enforcement Referral
US Steel Corporation Midwest Plant
NPDES Permit No. IN0000337
Portage, Porter County

An inspection of the above-referenced facility or location was conducted by a representative of the Indiana Department of Environmental Management, Northwest Regional Office, pursuant to IC 13-18-3-9. A summary of the inspection is provided below:

Date(s) of Inspection: September 27, 2021 and September 28, 2021
Type of Inspection: Reconnaissance Inspection
Inspection Results: Violations were observed and will be referred to the Enforcement Section.

The following concerns were noted:

1. Part I. B. of the permit prohibits the discharge from any and all point sources specified within the permit from causing receiving waters, including the mixing zone, to contain substances, materials, floating debris, oil, or scum:
 - 1) that will settle to form putrescent or otherwise objectionable deposits;
 - 2) that are in amounts sufficient to be unsightly or deleterious;
 - 3) that produce color, visible oil sheen, odor, or other conditions in such degree as to create nuisance.

The Receiving Waters Appearance and Effluent Appearance were rated as unsatisfactory due to orange water discharges into Burns Waterway to Lake Michigan from discharge Outfall 004 on September 27 and September 28, 2021. In addition IDEM's Emergency Response Section staff deployed on September 26, 2021, in response to public reports of orange discolored water in the Burns Waterway. IDEM's Emergency Response staff noted the discolored discharge from the U.S. Steel Midwest discharge Outfall 004.

2. Operation and Maintenance were rated as unsatisfactory. Part II. B. 1. of the permit requires that all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of the permit in accordance with 327 IAC 5-2-8(9) must be maintained in good working order and efficiently operated at all times.

On September 26, 2021, the lack of sulfuric acid at the Final Treatment Wastewater Treatment Plant (WWTP) caused the operator at the Final Treatment WWTP to request additional acid from the pickle operations in order to add more lime to increase sludge levels within the sedimentation basins in response to low solids within the basins. Acid was sent from the bath tanks of the pickle operation. The flow rate appears to have been faster than in usual operations and contained substantial iron within the discharge.

Problems with lime feeding were also occurring due to a plugged feed line. A manual lime feed was initiated. Additionally, the spencer blower failed at approximately 4:30 PM CDT and was brought back on-line at approximately 6 PM CDT. The air from the spencer blower assists in oxidation of the iron and, thus, the removal of iron.

After halting the pickle line discharge on September 26, 2021, the incoming wastewater was primarily neutral in pH and, thus, very little lime was added. The orange color returned in the morning of September 27, 2021 at approximately 3 AM CDT as lime could not be added. Operations at the facility were idled until the Final Treatment WWTP could be stabilized. At approximately 10 AM CDT a shipment of sulfuric acid arrived and was fed into the Final Treatment WWTP. US Steel personnel stated that the color in the effluent was gone by 3 PM CDT.

At approximately 8 AM CDT on September 27, 2021 the facility initiated a slow startup of operations that was completed at approximately 7 AM on September 28, 2021.

3. US Steel- Midwest is currently under a federal Consent Decree (Case No. 2:18-cv-00127) and a state Agreed Order (Case Nos. 2019-26434-W and 2019-26665-W). This matter is being referred to the U.S. Environmental Protection Agency (EPA), the U.S. Department of Justice (DOJ), and to the IDEM Office of Water Quality (OWQ) Enforcement Section in conjunction with the existing actions.

Within 10 days of receipt of this letter, a written detailed response documenting correction of the concerns listed above and/or a plan for assuring future compliance must be submitted to this office. Please direct your response to this letter to our letterhead address or via email to Amari Farren at afarren@idem.in.gov. Additionally, this matter is being

referred to the IDEM, OWQ Enforcement Section, the U.S. EPA, and U.S. DOJ for appropriate action. If formal action is initiated, you will be issued correspondence informing you of how to proceed in resolving this matter. Any questions regarding the enclosed report should be directed to Nick Ream at nream@idem.in.gov. A copy of the NPDES Industrial Facility Inspection Report and associated Attachments are enclosed for your records.

Sincerely,



Rick Massoels, Deputy Director
Northwest Regional Office

Enclosure

Cc: Amari Farren, Water Enforcement Section Chief
Ryan Bahr, U.S. EPA Region 5



NPDES Industrial Facility Inspection Report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

NPDES Permit Number: IN0000337	Facility Type: Industrial	Major	Facility Classification: IV	TEMPO AI ID 14435																				
Date(s) of Inspection: September 27, 2021 and September 28, 2021																								
Type of Inspection: Reconnaissance Inspection																								
Name and Location of Facility Inspected: US Steel Corporation Midwest Plant 6300 US Highway 12 Portage IN 46368			Receiving Waters/POTW: Burns Waterway to Lake Michigan	Permit Expiration Date: 9/30/2026 Design Flow: NA																				
On Site Representative(s): <table border="0"> <tr> <td>First Name</td> <td>Last Name</td> <td>Title</td> <td>Email</td> <td>Phone</td> </tr> <tr> <td>Joe</td> <td>Hanning</td> <td>Manger - Environmental Control</td> <td>jehanning@uss.com</td> <td>219-888-4500</td> </tr> <tr> <td>Tim</td> <td>Sullivan</td> <td>Coordinator - Environmental</td> <td>tlsullivan@uss.com</td> <td></td> </tr> <tr> <td>Alexis</td> <td>Piscitelli</td> <td>Director of Environmental Compliance</td> <td>apiscitelli@uss.com</td> <td></td> </tr> </table>					First Name	Last Name	Title	Email	Phone	Joe	Hanning	Manger - Environmental Control	jehanning@uss.com	219-888-4500	Tim	Sullivan	Coordinator - Environmental	tlsullivan@uss.com		Alexis	Piscitelli	Director of Environmental Compliance	apiscitelli@uss.com	
First Name	Last Name	Title	Email	Phone																				
Joe	Hanning	Manger - Environmental Control	jehanning@uss.com	219-888-4500																				
Tim	Sullivan	Coordinator - Environmental	tlsullivan@uss.com																					
Alexis	Piscitelli	Director of Environmental Compliance	apiscitelli@uss.com																					
Was a verbal summary of the inspection given to the on-site rep? Yes, by Phone																								
Certified Operator: Monique Beybley	Number: 21038	Class: D	Effective Date: 7-1-21	Expiration Date: 6-30-24																				
Email: mbeybley@uss.com																								
Cyber Security Contact																								
Name: _____ Email: _____																								
Responsible Official: Mr. Ladislav Halaj, Plant Manager 6300 US Highway 12 Portage, Indiana 46368			Permittee: US Steel, Midwest Plant Email: hladislav@uss.com Phone: _____ Fax: _____ Contacted? No																					
INSPECTION FINDINGS																								
<input type="radio"/> Conditions evaluated were found to be satisfactory at the time of the inspection. (5) <input type="radio"/> Violations were discovered but corrected during the inspection. (4) <input type="radio"/> Potential problems were discovered or observed. (3) <input type="radio"/> Violations were discovered and require a submittal from you and/or a follow-up inspection by IDEM. (2) <input checked="" type="radio"/> Violations were discovered and may subject you to an appropriate enforcement response. (1)																								
AREAS EVALUATED DURING INSPECTION																								
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)																								
U	Receiving Waters	N	Facility/Site	S																				
U	Effluent/Discharge	U	Operation	N																				
N	Permit	U	Maintenance	N																				
		N	Sludge	N																				
			Self-Monitoring	N																				
			Flow Measurement																					
			Laboratory	N																				
			Records/Reports	U																				
			Other:	Enforcement Orders and Attachments																				
DETAILED AREA EVALUATIONS																								
On September 26, 2021 citizens reported observing orange water discharging into Burns Waterway from US Steel Midwest's Outfall 004. Reports were made to the National Response Center (NRC), Incident Report #1317929, at approximately 6:04 PM Central Daylight Time (CDT). Mr. John Lankowicz, IDEM Emergency Response Section, responded overnight to the incident. The EPA contracted Tetra Tech to collect water samples, who began taking grab samples on the night of September 26, 2021.																								
On September 27, 2021 Sonia Vega with the EPA, Derek Beamer with Indiana Department of Natural Resources, Eric																								

Krukar with the US Coast Guard, Nicholas Heiple with the US Coast Guard, David Greinke of IDEM - Emergency Response, and I met with Joe Hanning of US Steel.

I observed the area approximately 500 feet downstream (North) of Outfall 004. It was difficult to discern if any orange was present due to the sunlight and silt within the waterway. The discharge observed from Outfall 004 was orange in color. A vactor truck was present at Outfall 004. Mr. Hanning stated that the vactor truck crew was attempting to remove solids that settled on the rip rap and the boom.

The Final Treatment facility was observed. The east train was noticeably orange in color. The west train was also orange, but to a much lesser degree.

The Chromium Treatment facility was inspected and was not in operation at the time of the inspection. It was later learned the facility ceased discharging due to US Steel shutting down processes at the facility to minimize the impact of the orange discharge.

Mr. Hanning stated that grab samples were being taken at Outfall 004 every 12 hours for all permitted parameters. Additionally, 24 hour composite samples were being collected every morning at approximately 7 AM CDT for all permitted parameters. Samples taken by US Steel Midwest were taken to ALS for expedited analysis.

When asked what caused the orange discharge, Mr. Hanning stated the incident was still under investigation, but initially it appeared problems occurred when on-site staff observed solids were depleting within the sedimentation basins. Additional acid was requested in order to feed additional lime which would generate more solids. Initial investigations by US Steel personnel indicated the sulfuric acid sent from the pickle operations "overshot" the requirements of Final Treatment.

US Steel attempted to obtain additional sulfuric acid to add to Final Treatment, into which they could add lime to improve solids control in the facility. A shipment of sulfuric acid originally designated for the powerhouse was diverted to the wastewater facility late in the morning of September 27, 2021.

September 27, 2021 was primarily dedicated to spill response.

US Steel personnel left a voice mail on September 28, 2021 at approximately 8 AM CDT stating that the wastewater plant had stabilized and production lines were being brought on-line in a staggered fashion to ensure a smooth startup.

Mr. Keith Middleton, US EPA, and I entered US Steel at approximately 9 AM CDT on September 28, 2021. We met with Alexis Pisiciteli and Eric Williams in the Environmental Building. We were taken to Outfall 004 and met with Mr. Joe Hanning. The discharge from Outfall 004 appeared generally colorless, though red/orange-stained vegetation was observed discharging periodically.

Both East and West sedimentation basins appeared improved in color compared to the previous day, September 27, 2021. All treatment processes associated with Final Treatment appeared to be in operation. Sulfuric acid was still being added from a semi truck in order to lower the influent pH in preparation for lime addition.

US Steel internal investigations were still ongoing.

The following information was requested from US Steel:

- A timeline of events leading to the initial pH fluctuation, including internal notifications.
- Operator records and internal monitoring results leading to the incident.
- Any 'dump sheets' leading up to the incident.
- pH logging graphs at the plant for a reasonable time period leading to the incident.
- Identify the exact wastestream or event that caused the pH swing leading to the incident.
- A listing of impacted entities notified of the incident.

The information given by US Steel personnel in response to the data requested is attached to this inspection report. One of the responses given on September 30, 2021 contained a detailed timeline of events.

Receiving Waters:

Comments:

Part I. B. of the permit prohibits the discharge from any and all point sources specified within their permit from causing receiving waters, including the mixing zone, to contain substances, materials, floating debris, oil, or scum:

- 1) that will settle to form putrescent or otherwise objectionable deposits;
- 2) that are in amounts sufficient to be unsightly or deleterious;

3) that produce color, visible oil sheen, odor, or other conditions in such degree as to create nuisance.

The Receiving Waters Appearance and Effluent Appearance were rated as unsatisfactory due to orange water discharges into Burns Waterway to Lake Michigan from discharge Outfall 004 on September 27 and September 28, 2021. While the mixing zone appeared to be improved on September 28, the red-orange vegetation and a slight orange tinge were still visible. In addition IDEM's Emergency Response Section staff deployed on September 26, 2021, in response to public reports of orange discolored water in the Burns Waterway. IDEM's Emergency Response staff noted the discolored discharge from the U.S. Steel Midwest discharge Outfall 004.

Effluent/Discharge:

Comments:

Effluent Appearance was rated as unsatisfactory. Please refer to the Receiving Stream category for more information.

Operation:

Comments:

Operation was rated as unsatisfactory. Part II. B. 1. of the permit requires that all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of the permit in accordance with 327 IAC 5-2-8 (9) must be maintained in good working order and efficiently operated at all times.

On September 26, 2021, the lack of sulfuric acid at the Final Treatment Wastewater Treatment Plant (WWTP) caused the operator at the Final Treatment WWTP to request additional acid from the pickle operations in order to add more lime to increase sludge levels within the sedimentation basins in response to low solids within the basins. Acid was sent from the bath tanks of the pickle operation. The flow rate appears to have been faster than in usual operations and contained substantial iron within the discharge.

Problems with lime feeding were also occurring due to a plugged line. A manual lime feed was initiated. Additionally, the spencer blower failed at approximately 4:30 PM CDT and was brought back on-line at approximately 6 PM CDT. The air from the spencer blower assists in oxidation of the iron and, thus, the removal of iron. Maintenance records were requested early on October 5, 2021, but no response to the request had been received by the time this report was drafted.

After halting the pickle line discharge on September 26, 2021, the incoming wastewater was primarily neutral in pH and, thus, very little lime was added. The orange color returned in the morning of September 27, 2021 at approximately 3 AM CDT as lime could not be added. Operations at the facility were idled until the Final Treatment WWTP could be stabilized. At approximately 10 AM CDT a shipment of sulfuric acid arrived and was fed into the Final Treatment WWTP. US Steel personnel stated that the color in the effluent was gone by 3 PM CDT.

At approximately 8 AM CDT on September 28, 2021 the facility initiated a slow startup of operations that was completed at approximately 7 AM on September 29, 2021.

Maintenance:

Comments:

Maintenance was rated as unsatisfactory. Please refer to the Operation category for more information.

Self-Monitoring:

Comments:

US Steel personnel initiated grab sampling of the event by taking grab samples every 12 hours at approximately 7 PM and 7 AM CDT for all permitted parameters and iron. US Steel was already obligated to take 24-hour composites of all permitted parameters at Outfall 004.

A review of the results taken by the EPA and US Steel Midwest personnel did not indicate numerical effluent limits exceedances. The discoloration appears to be caused by the presence of high iron concentrations, which is not a permitted limit.

Effluent Limits Compliance:

No 1. Were DMRs reviewed as part of the inspection?

Comments:

Other:**Enforcement Orders and Attachments**

Comments:

US Steel- Midwest is currently under a federal Consent Decree (Case No. 2:18-cv-00127) and a state Agreed Order (Case Nos. 2019-26434-W and 2019-26665-W). This matter is being referred to the U.S. Environmental

Protection Agency (EPA), the U.S. Department of Justice (DOJ), and to the IDEM Office of Water Quality (OWQ) Enforcement Section in conjunction with the existing actions.

Attachments are included in this report.

Attachment A: USS Midwest 5-day letter

Attachment B: Notifications made by USS Midwest

Attachment C: Final treatment Equalization Basin pH chart

Attachment D: Operator sheets

IDEM REPRESENTATIVE

Inspector Name:	Email:	Phone Number:
Nicholas Ream	nream@idem.IN.gov	219-730-1691

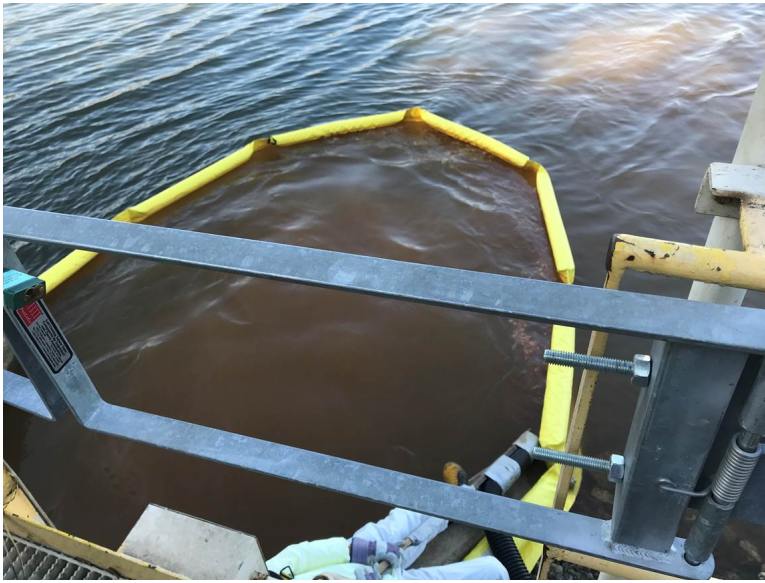
Other staff participating in the inspection:

Name(s)	Phone Number(s)
David Greinke	219-730-4035 IDEM
John Lankowicz	574-309-0338 IDEM
Sonia Vega	630-481-5025 EPA
Derek Beamer	317-232-4010 Indiana DNR
Eric Krukar	630-986-2155 U.S. Coast Guard
Nicholas Heiple	U.S. Coast Guard
Keith Middleton	312-866-6465 EPA

IDEM MANAGER REVIEW

IDEM Manager:	Date:
Rick Massoels	10/8/2021

Inspection Photographs



Facility:
US Steel Corporation Midwest Plant

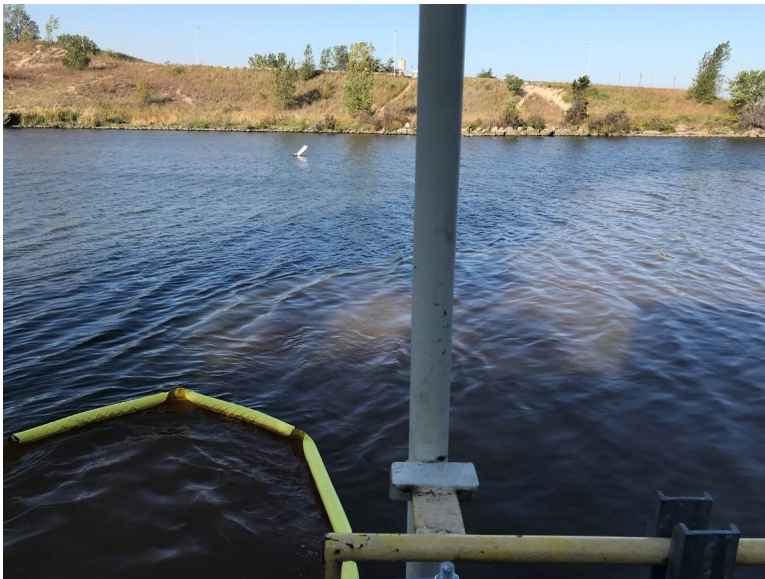
Photographer:
Picture provided to IDEM

Date: 09/27/2021 Time: 9:30 AM

Others Present:

Location/Description:
West view of Outfall 004. Orange discharge was visible in the wastewater.

Other Present: Joe Hanning



Facility:
US Steel Corporation Midwest Plant

Photographer:
Picture provided to IDEM

Date: 09/27/2021 Time: 9:30 AM

Others Present:

Location/Description:
West view of Outfall 004 and immediately downstream.

Others Present: Joe Hanning



Facility:
US Steel Corporation Midwest Plant

Photographer:
Picture provided to IDEM

Date: 09/27/2021 Time: 10:00 AM

Others Present:

Location/Description:
Southwest view of the east sedimentation basin of Final Treatment. The basin was orange in appearance.

Others Present: Joe Hanning



Facility:
US Steel Corporation Midwest Plant

Photographer:
Picture provided to IDEM

Date: 09/27/2021 Time: 10:00 AM

Others Present:

Location/Description:
Southeast view of the west sedimentation basin of Final Treatment. The basin was a thin-orange in appearance.

Others Present: Joe Hanning



Facility:
US Steel Corporation Midwest Plant

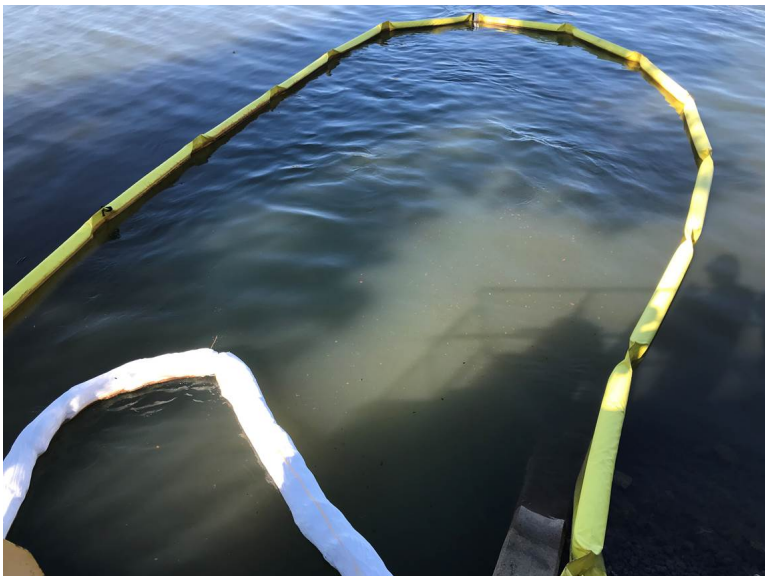
Photographer:
Picture provided to IDEM

Date: 09/27/2021 Time: 9:30 AM

Others Present:

Location/Description:
South view of Burns Waterway, approximately 500 feet north (downstream) of Outfall 004.

Others Present: Joe Hanning, Lucas Stamps, Isaac Sageman



Facility:
US Steel Corporation Midwest Plant

Photographer:
Picture provided to IDEM

Date: 09/28/2021 Time: 10:40 AM

Others Present:

Location/Description:
West view of Outfall 004. The discharge was not orange as the previous days, but orange vegetation was observed periodically discharging.

Others Present: Joe Hanning, Keith Middleton, Dave Greinke, Alexis Piscitelli, Eric Williams



Facility: US Steel Corporation Midwest Plant	
Photographer: Picture provided to IDEM	
Date: 09/28/2021	Time: 10:45 AM
Others Present:	
Location/Description: Southeast view of the west sedimentation basin of Final Treatment.	
Others Present: Joe Hanning, Keith Middleton, Dave Greinke, Alexis Piscitelli, Eric Williams	



Facility: US Steel Corporation Midwest Plant	
Photographer: Picture provided to IDEM	
Date: 09/28/2021	Time: 11:00 AM
Others Present:	
Location/Description: North view of the lime addition.	
Others Present: Joe Hanning, Keith Middleton, Dave Greinke, Alexis Piscitelli, Eric Williams	



Facility: US Steel Corporation Midwest Plant	
Photographer: Picture provided to IDEM	
Date: 09/26/2021	Time:
Others Present:	
Location/Description: Outfall 004 in Burns Waterway, provided via email on September 26, 2021.	

Attachment A



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

VIA ELECTRONIC SUBMITTAL

September 30, 2021

Mr. Jason House
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 (Midwest)
NPDES Permit IN0000337
Outfall 004 Discoloration

Dear Mr. House:

This letter is the written follow up for the discoloration observed at Outfall 004 on Sunday September 26, 2021 at Midwest. This letter also satisfies Part IX.28 of the Midwest Consent Decree United States v. United States Steel Corporation, 2:18-CV-127 JD (Consent Decree).

Midwest is in the process of completing our investigation into this issue, but sampling results show there was not a violation of permit parameters and there were no visible adverse impacts to the environment, aquatic life or wildlife. This is based upon both grab and composite samples taken during and after event. The samples taken were analyzed for permit parameters as well as iron, which is not a permit parameter. Results from the samples were received Monday afternoon (9/27/2021). The sampling results were provided to IDEM and USEPA. The sampling results did show there was elevated amounts of iron. The elevated iron was determined to be the contributing factor to the color of the discharge. Analytical results for iron at the final Outfall 004 are summarized below.

24-hr composite Samples for Iron	Outfall 004	
Date	Concentration (mg/l)	Loading (lbs/day)
7:00 am 9/25/21 - 7:00 am 9/26/21	0.28	31
7:00 am 9/26/21 - 7:00 am 9/27/21	5.7	598
7:00 am 9/27/21 - 7:00 am 9/28/21	2.0	226
7:00 am 9/28/21 - 7:00 am 9/29/21	0.93	116



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

Description of event:

On Sunday September 26, 2021, a discoloration was observed at Outfall 004. At approximately 6:55 pm CDT, U. S. Steel Management received a call from IDEM concerning an issue at Outfall 004. Shortly after that the call from IDEM, the National Park Service called and inquired if there were any issues at Midwest or outfalls. An investigation into the matter was started immediately. The United States Coast Guard contacted U. S. Steel Security about the incident around 7:17 pm CDT.

Once Midwest confirmed the discoloration at Outfall 004, proper notifications were started. At the time of the notifications, it was uncertain what was causing the discoloration. Out of an abundance of caution, the 24-hour reporting requirements commenced as required in part II.C.3 of the Consent Decree. Notifications were made to the following: Indiana Department of Environmental Protection (IDEM), National Response Center (NRC), United States Environmental Protection Agency (USEPA), Indiana Dunes National Park, Town of Ogden Dunes Fire Chief, U. S. Coast Guard, Indiana American Water, City of Portage, Senator Karen Tallian, Port of Indiana, Porter County Sheriff's Office, Michigan City Water Department, East Chicago Water Department, and Hammond Water Works.

At this time Midwest has reviewed information and determined there are different contributing factors to this event. These factors are discussed below and how those items impacted the operations at the Final Treatment Plan.

First, the sludge bed levels in the sedimentation basins at the Final Treatment Plant were decreasing on Sunday (9/26/21) morning around 8:00 am CDT. The decrease in sludge levels correspond to a decrease in solids loading coming to the plant due to various operations within Midwest being on a scheduled downturn. As sludge levels continued to decrease, the wastewater Operator (Operator) determined there would need to be acid added to the treatment system to depress the pH at the equalization basins which would then result in more lime (solids) addition.

Next, when the Operator went to add acid to the wastewater treatment system the sulfuric acid supply levels were too low to allow for an adequate feed of acid. The low supply of sulfuric acid was due to an acid delivery that was scheduled for Friday September 24, 2021 was not completed by the chemical vendor. The Operator contacted the pickle lines at around noon for them to supply some acid from the pickle operations to supplement for the sulfuric acid.

Then at approximately 1:10 pm CDT, the EQ Basin pH started to drop. In response to the dropping pH, lime addition was increased. At approximately 3:00 pm CDT, one of the rotodip lime feeders became plugged, so the operator mitigated the plugged line by opening the manual



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

feed to add additional lime. The Operator cleaned the rotodip feed line to restore proper operation. The Operator then noticed that both rotodips were maxed out and that the recirculation feed was darker than normal. The Operator realized the acid (approx. 7% HCL) feed from pickle line was being overfed to the system and contacted the pickle line to shut off the acid. The acid was shut off at approximately 3:20 pm CDT. It is estimated that approximately 14,000 gallons of acid was fed from the pickle line during this time. Based upon recent usage that amount is consistent with the daily acid demand of the treatment plant. In this event the investigation has noted one difference - the rate of the acid feed from the pickle line was faster than in usual operations.

Also, the spence blower, which supplies aeration to the EQ Basin, failed at approximately 4:30 pm CDT. Electricians were contacted and the Operator switched to backup plant air to maintain aeration. The spence blower was back in operation at approximately 6:00 pm CDT.

Once the acid from the pickle line was shut off and lime feeders returned to operation, the water within the Final Treatment Plant began to improve gradually until approximately 3:00 am CDT Monday (9/27/21) morning. At that time, the water started to deteriorate again due to incoming wastewater being relatively neutral in pH and very little lime was being added.

Operations at Midwest were idled until the Final Treatment Plant could stabilize operations. A delivery of sulfuric acid arrived Monday (9/27/21) at Midwest around 10:00 am CDT. The sulfuric acid was immediately fed into the Final Treatment Plant. The water gradually improved and at approximately 3:00 pm CDT, the discoloration ceased. Based upon a review of available operations information it is estimated the discoloration at Outfall 004 started around 3:00 pm CDT on 9/26/21 and ended around 3:00 pm CDT on 9/27/21. Operations at Midwest remained down until Tuesday (9/28/21) morning, when a slow and methodical startup of operations commenced. The Midwest plant was back to normal operations at 7:00 am CDT Wednesday (9/29/21) morning.

Since the investigation is ongoing, the corrective actions identified so far include the following:

- Improve coordination for sulfuric acid deliveries with suppliers
- Develop a process and procedure for using acid in the wastewater treatment system from alternative sources
- Review internal operating communication procedures and revise if necessary

If other correction actions are found in the investigation those will be identified going forward.

If you have any questions about this matter, please call me at (219) 763-5022 or email me at tlsullivan@uss.com.



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

Sincerely,

A handwritten signature in black ink that reads "Tim Sullivan". The signature is written in a cursive, flowing style.

Tim Sullivan
Environmental Manager
United States Steel Corporation
Midwest Plant

Attachment B

Reason for Notification: [] Precautionary ☒ Reportable IncidentDate: 9/26/21Time: 19:00

Description of issue:

Notifications made by Tim Sullivan or designee			
Entity	Phone Number	Time	Person contacted or voicemail
National Response Center (NRC)	1-800-424-8802	21:18	Mr. Ganther Report 1317939
Indiana Department of Environmental Protection (IDEM) 24-hr Emergency Spill Line	1-888-233-7745	18:55	TF John Landowicz
USEPA Regional Administrator, Region 5	1-312-886-3000		
Indiana Dunes National Park	Office 1-219-395-1077 Dan Plath cell 1-219-871-9559	18:56 TF	Dan Plath
USEPA On Scene Coordinator	1-312-353-2318	21:30	TF Betsy Nightingale
Porter County Local Emergency Planning Committee (LEPC)	1-219-465-3593	21:58	
Port of Indiana-Burns Harbor Port Director	1-219-734-7076	21:48	Ryan McCoy left voice mail
Porter County Sheriff's Office	1-219-477-3000	21:50 TT	Emily Greg Eckhardt HazMat
Michigan City Water Department	1-219-872-4430	21:44 TT	Tyrrell Grantham
East Chicago Water Department	1-219-391-8469 Filtration Dept. 1-219-391-8487	21:59 TT	Ms. Starr

22:07

Hammond Water Works	1-219-853-6428	22:07	No Answer
City of Portage POTW	1-219-762-1301		

Notifications made by Alexis Piscitelli or designee			
Entity	Phone Number	Time	Person contacted or voicemail
Indiana American Water	1-800-492-8373 Pete Harretos cell 1-219-384-9509	Monday 00:11	Follow up call
City of Chicago Bureau of Water Supply	1-312-907-1676	Monday 00:04	

Notifications made by Paul Vercher or designee			
Entity	Phone Number	Time	Person contacted or voicemail
City of Portage	1-219-763-2986	00:07	Follow up call
Ogden Dunes Fire Chief	Eric Kurtz 1-219-405-9797	00:09	Follow up call
Senator Karen Tallian			

Only if a spill/release to water and If a release meets the definition of a Spill under the Indiana Spill Rule, 327 IAC 2-6.1-1, which applies to the reporting and containment of, and the response to those spills of hazardous substances, extremely hazardous substances, petroleum, and objectionable substances that are of a quantity, type, duration and in a location as to damage the waters of the state. ("Spill" means any unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impermeable surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil. 327 IAC 2-6.1-4)

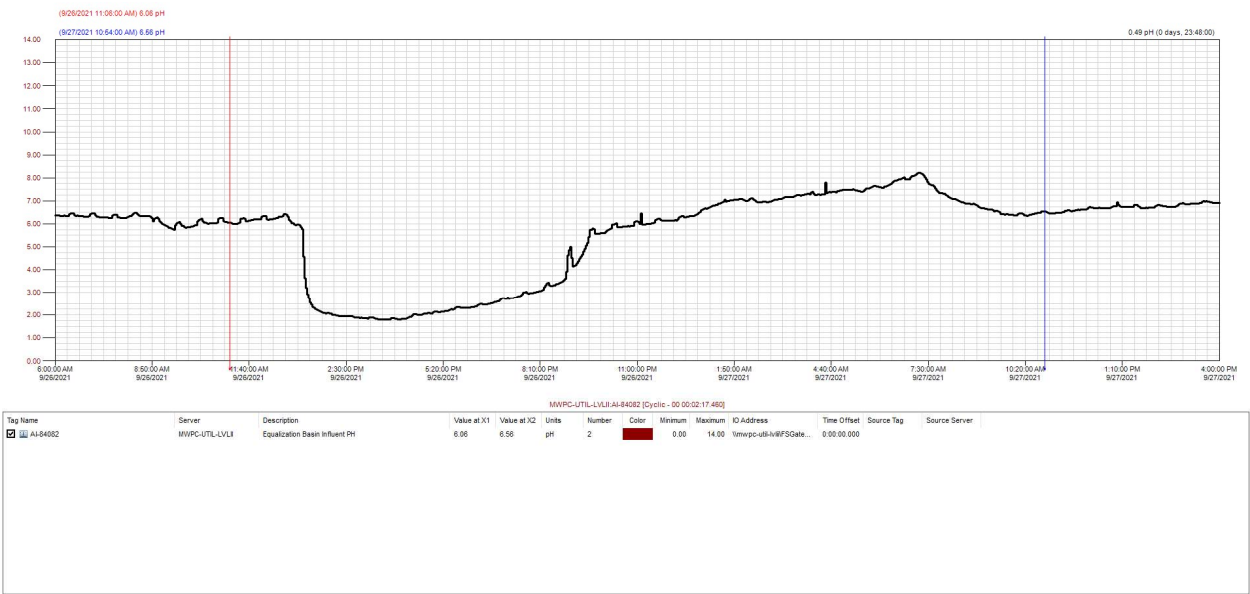
Only for spills and release of oil

Only for spills and releases to POTW

Only for RQ releases

Attachment C

Final Treat EQ Basin effluent pH



7010-01 Release, Spills, Leaks, Dumps/Washdowns Report

Date: 9/25/21

Time:		Event: (Circle one) Release	Spill	Leak	Dump/Washdown
Call from (Name / Area / Contact number)					
Talked with: (Name / Area)					
Material					
Volume:	Discharge rate:				
Start Time:	Concentration:				
Circle one:	APPROVED	NOT APPROVED	DELAYED	End Time: approval	
Management contacted and Time:					
Specials Instructions					

Time:		Event: (Circle one) Release	Spill	Leak	Dump/Washdown
Call from (Name / Area / Contact number)					
Talked with: (Name / Area)					
Material					
Volume:	Discharge rate:				
Start Time:	Concentration:				
Circle one:	APPROVED	NOT APPROVED	DELAYED	End Time: approval	
Management contacted and Time:					
Specials Instructions					

7010-01 Release, Spills, Leaks, Dumps/Washdowns Report

Date: 9/26/21

Time:	10:00	Event: (Circle one) Release	Spill	Leak	Dump/Washdown
Call from (Name / Area / Contact number)	72"				
Talked with: (Name / Area)	Cleaner				
Material	Refused the dump				
Volume:		Discharge rate:			
Start Time:		Concentration:			
Circle one:	APPROVED	End Time:			
Management contacted and Time:	NOT APPROVED	approval			
Specials Instructions					
No cleaner due to zero sledge bed. 72" seemed ok with not sending.					

Time:	1430	Event: (Circle one) Release	Spill	Leak	Dump/Washdown
Call from (Name / Area / Contact number)	Dave				
Talked with: (Name / Area)	FP				
Material	taking it while using the pickel acid to be after				
Volume:		Discharge rate:			
Start Time:		Concentration:			
Circle one:	APPROVED	End Time:			
Management contacted and Time:	NOT APPROVED	approval			
Specials Instructions					

Form: 7010-01
Date: 3-24-20

7010-01 Release, Spills, Leaks, Dumps/Washdowns Report

Date: 9-27-21

Time: <u>0230</u>	Event: (Circle one) <u>Release</u>	Spill	Leak	Dump/Washdown
Call from (Name / Area / Contact number) <u>Gilbert/melissa / Emergency plant / 5092</u>				
Talked with: (Name / Area) <u>Gilbert/melissa / Emergency plant.</u>				
Material <u>Acid. Caustic</u>				
Volume: <u>N/A</u>		Discharge rate: <u>N/A</u>		
Start Time:		Concentration: <u>N/A</u>		
Circle one: <u>APPROVED</u>	<u>NOT APPROVED</u>	End Time: <u>N/A</u>		
Management contacted and Time:		approval <u>NO NO NO</u>		
Specials Instructions <u>called Tim Sullivan @ 0235. discussion went on. Decided Tim will decide later in morning.</u>				

Time:	Event: (Circle one) <u>Release</u>	Spill	Leak	Dump/Washdown
Call from (Name / Area / Contact number)				
Talked with: (Name / Area)				
Material				
Volume:		Discharge rate:		
Start Time:		Concentration:		
Circle one: <u>APPROVED</u>	<u>NOT APPROVED</u>	End Time: <u>approval</u>		
Management contacted and Time:				
Specials Instructions				

Date: 9-27-21

2nd Turn Op. JK

3rd Turn Op. LB

[x] = normal range

	2nd Turn	3rd Turn
Acid Integrator gal	9868	10353
Acid Tank Level gal	1013	3205
Acid used	—	531
gallons used	—	—
#2 Lime gallons used	—	—
Total Lime Used	—	2100
Lime Tank 1 Gallons	9960	6790
Lime Tank 2 Gallons	8630	10040
Outfall 104 Final Eff Mil. Gal	1942531	1746429
Air to mix tank, psi (30-35)	330	340
Sludge flow to SDW	0	0
Sludge Flow Integrator to SDW	778105	778131
CA Charge Ltr - Pump N/S	46 N/S	46 N/S
Bulk CA Tank Level, Inch	42.6	42
Wastewater Skimming Tank Level	17	45
Antifoam Bulk Tank Level	—	2

IF ANY ANOMALIES FOUND, ADDRESS CAUSE & DOCUMENT CORRECTIVE ACTIONS BELOW.

	2nd Turn	3rd Turn
Cooling Water Temp	—	—
Outfall 004 pH (7.0 - 8.5)	8.0	8.5
Outfall 004 visual check	✓	✓
Outfall 104 pH (7.5 - 8.5)	7.6	7.9
Outfall 104 visual check	✓	✓
Outfall 104 Average Iron mg/l [0-0.6]	—	—
Outfall 104 Average Turbidity FTU [0-8]	50	72
Outfall 104, Iron mg/l, 6 read [0-0.6]	1.1, 1.1, 1.1, 1.06, 1.5, 2.6	0.8, 0.5, 1.4
Outfall 104, Turb FTU, 6 read [0-8]	72, 64, 73, 72, 12, 11	14, 10, 9, 8, 7, 6
Outfall 104, Hex Cr, ppb, 3 read [0-0.02]	0.018, 0.015, 0.003	0.011, 0.005, 0.005

Tower measure range

IF ANY ANOMALIES FOUND, ADDRESS CAUSE & DOCUMENT CORRECTIVE ACTIONS BELOW.

	2nd Turn	3rd Turn
Subdrains Equal Basin Total Min.	—	—
Subdrains Sed. Basin Total Min.	—	—
Scum & Oil Strainer Cleaned?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

Maintenance Requested put in Comments section:

COMMENTS:

JK Requests Turbidity rounds every hour

	2nd Turn	3rd Turn
Lime Tanker Received	4200	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Acid Tanker Received	one truck	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Other Chemical Delivery	3200	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Oil Transferred to Tanker	—	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

	Equal Basin pH [3-9] portable/chart	Mix Tank pH [7-9] portable/chart	104 pH [7.5-8.5] portable/chart	Sludge Levels % sand/west	Sludge to SDW	ACH Pump Settings	Starch Pump Settings
Time	min 4 x shift	min 4 x shift	min 4 x shift	min 6 x shift			
7:00 AM	6.7 6.9	8.0 8.2	7.6	100 50	4200	70 70	70 70
8:00 AM	—	—	—	100 50	190	—	—
9:00 AM	6.3 6.5	8.0 8.1	7.5	100 50	190	—	—
10:00 AM	—	—	—	100 50	190	—	—
11:00 AM	6.3 6.5	8.2 8.4	8.3	90 50	190	—	—
12:00 PM	—	—	—	75 75	40	—	—
1:00 PM	6.6 6.7	8.2 8.3	8.2	48 90	0	—	—
2:00 PM	—	—	—	48 90	0	—	—
3:00 PM	6.7 6.9	8.1 8.3	7.8	40 50	0	—	—
4:00 PM	—	—	—	75 60	0	—	—
5:00 PM	6.8 7.0	8.0 8.2	7.6	85 80	0	—	—
6:00 PM	—	—	—	—	—	—	—
7:00 PM	7.1 6.9	8.0 8.4	8.1	85 80	0	70/70	70/70
8:00 PM	—	—	—	85 85	0	—	—
9:00 PM	7.0 7.1	8.0 8.2	7.8	65 65	0	—	—
10:00 PM	—	—	—	65 65	0	—	—
11:00 PM	7.0 7.1	8.0 8.2	7.8	75 75	0	—	—
12:00 AM	—	—	—	75 75	0	—	—
1:00 AM	6.9 7.0	8.0 8.0	7.9	65 60	0	—	—
2:00 AM	—	—	—	50 50	0	—	—
3:00 AM	6.9 7.0	8.0 8.2	7.8	50 30	0	—	—
4:00 AM	—	—	—	30 10	0	—	—
5:00 AM	7.0 7.2	8.0 8.1	7.8	10 10	0	—	—
6:00 AM	—	—	—	—	—	—	—

adjusted west down west down again

stopped Pumping Adjusted Back Plushed Sludge Pumps

T46

T26

T50

T-14

T-10

T-9

T-9

T-8

T-8

T-7

T-5

T-6

T-5

iron .41 @ 0600

Date: 9/26/21

2nd Turn Op. 76

3rd Turn Op. 4B

[20] = normal range

	2nd Turn	3rd Turn
Acid Integrator gal	9726	9758
Tank Level gal	802	669
Acid used	133	56
gallons used		
#2 Lime gallons used		
Total Lime Used		2000
Lime Tank 1 Gallons	9770	8510
Lime Tank 2 Gallons	6510	6500
Outfall 104 Final Eff Mil. Gal	1933397	1938100
Air to mix tank, psi (30-35)	251	335
Sludge flow to SDW	160	250
Sludge Flow Integrator to SDW	753926	769494
CA Charge Ltr - Pump N/S	4	44/N/A
Bulk CA Tank Level, inch	43.6	43
Wastewater Skimming Tank Level	1845	59
Anti-foam Bulk Tank Level		2.33

IF ANY ANOMALIES FOUND, ADDRESS CAUSE & DOCUMENT CORRECTIVE ACTIONS BELOW.

	2nd Turn	3rd Turn
Lime Tanker Received	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
Acid Tanker Received	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
Other Chemical Delivery	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
Oil Transferred to Tanker	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>

	2nd Turn	3rd Turn
Cooling Water Temp		
Outfall 004 pH (7.0 - 8.8)	7.8	6.5
Outfall 004 visual check	✓	✓
Outfall 104 pH (7.5 - 8.5)	7.7	7.1
Outfall 104 visual check	✓	✓
Outfall 104 Average Iron mg/l [0-1.5]	1	1.7
Outfall 104 Average Turbidity FTU [0-5]	70	100
Outfall 104, Iron mg/l, 6 read [0-0.6]	3043.8421	1515.61
Outfall 104, Turb FTU, 6 read [0-5]	466.672	70
Outfall 104, Hex Cr, ppb, 3 read [0-0.02]	1005.011	1005.011

IF ANY ANOMALIES FOUND, ADDRESS CAUSE & DOCUMENT CORRECTIVE ACTIONS BELOW.

	2nd Turn	3rd Turn
Subdrains Equal. Basin Total Min.		
Subdrains Sed. Basin Total Min.		
Scum & Oil Strainer Cleaned?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

Maintenance Requested put in Comments section:

COMMENTS: Increased Acid Feed for more time to try to build Sludge bed 0700 No Acid head pressure will not go thru control valve. Running acid manually but only getting a trickle. Blower Spence East blown at MCC Panel. Contacted No she was not able to get in contact with anyone, turned on Plant air EQ Power insp. Larry fixed Blower

Time	Equal Basin pH [3-9] portable/chart	Mix Tank pH [7-9] portable/chart	104 pH [7.5-8.5] portable/chart	Sludge Levels % eastwest	Sludge to SDW	ACH Pump Settings	Starch Pump Settings
	min 4 x shift	min 4 x shift	min 4 x shift	min 5 x shift			
7:00 AM	6.3 6.2	8.1 8.1	7.9	40 50	0	60 60	60 60
8:00 AM				10 10	0		
9:00 AM	6.0 5.9	7.9 8.1	7.9	5 5	0		
10:00 AM				0 0	0		
11:00 AM	6.0 6.1	8.2 8.3	8.1	0 0	0		
12:00 PM				0 0	0		
1:00 PM	5.9 6.0	8.0 8.0	8.0	0 0	0		
2:00 PM				3 5	0		
3:00 PM	1.9 1.8	6.2 6.1	7.6	8 20	100	70 70	70 70
4:00 PM				80 85	100		
5:00 PM	2.0 2.2	6.4 6.2	7.6	90 90	160		
6:00 PM							
7:00 PM	2.8 2.7	8.0 8.1	6.0	90 90	160	70 70	70 70
8:00 PM				90 90	220		
9:00 PM	3.1 3.3	8.0 8.3	7.0	95 95	230		
10:00 PM				95 95	230		
11:00 PM	6.0 6.1	8.1 8.4	7.4	95 95	240		
12:00 AM				95 95	240		
1:00 AM	6.5 6.1	8.1 8.3	7.5	95 95	240		
2:00 AM				95 95	230		
3:00 AM	7.0 7.0	8.0 8.2	7.5	95 95	230		
4:00 AM				75 80	210		
5:00 AM	7.3 7.4	8.0 8.2	7.4	95 95	220		
6:00 AM				100 50	220		

John running Roto + Dog leg to try to keep Ph stable

called had Lesko had him shut Pickler down cones black Hit way to head

-Turbs
40
40
40

Had Pickel send waste Pickel liquor

Got OK Per Dave EP. Per Mo to take Regen. Increased All chemicals

Roto dip failure during Pickel dump worked on using dog leg to control

Neep those Pumps ASAP

East Spence blower Popping me pain! West won't start No one answering radio or phone 1630

3rd turn 300 40 increased Polymer @ 00:00 per T.

Bird Bath Green with purple Acid @ 1200 7pm - spoke with Patrick. He's making sure waste pickle is shut off. Increased Air to 335. Patrick says shut off @ 3:30