



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

ELECTRONIC EMAIL
CONFIRMATION OF EMAIL RECEIPT REQUESTED

Mr. Rick Baldwin
Environmental Manager
Challenge Richmond, LLC
110 Continental Drive
Richmond, KY 40475
rbaldwin@challenge-mfg.com

Re: Compliance Evaluation Inspection Report
NPDES Permit No. KY0074748

Dear Mr. Baldwin:

The U.S. Environmental Protection Agency Region 4 and the Kentucky Division of Water conducted a Compliance Evaluation Inspection of the Challenge Richmond, LLC industrial storm water system on July 27, 2021. The objective of the inspection was to assess the permittee's compliance with the Clean Water Act and to the National Pollutant Discharge System (NPDES) permit. The inspection results have been summarized in the enclosed Compliance Evaluation Inspection Report.

The EPA appreciates your cooperation. If you have specific questions about the inspection report, please contact Dennis Sayre at (404) 562-9756 or at Sayre.Dennis@epa.gov. Please verify receipt of this letter and report by emailing Mr. Sayre at the email address provided.

Sincerely,

JAIRO
CASTILLO

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CASTILLO
Date: 2021.09.29
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Jairo Castillo, P.E., Chief
Wastewater Enforcement Section
Water Enforcement Branch

Enclosure

cc: Constance Coy, constance.coy@ky.gov
Kentucky Division of Water

United States Environmental Protection Agency Region 4
Enforcement and Compliance Assurance Division
Water Enforcement Branch
61 Forsyth Street, SW
Atlanta, Georgia 30303



Compliance Evaluation Inspection Report

Challenge Richmond, LLC
NPDES Permit: KY0074748
Project No. CV-KY0074748-072721

110 Continental Drive
Richmond, KY 40475

Inspection Date: July 27, 2021

Inspector:
Dennis Sayre, EPA Region 4

Inspection Report Prepared by: Dennis Sayre

September 3, 2021

Approval Sheet

Title: Compliance Evaluation Inspection Challenge Richmond, LLC

Approving Official:

**JAIRO
CASTILLO**

Digitally signed by JAIRO
CASTILLO
Date: 2021.09.29
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9/29/2021

Jairo Castillo, P.E., Chief
Wastewater Enforcement Section
Water Enforcement Branch

Date

Enforcement Officer:

**DENNIS
SAYRE**

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DENNIS SAYRE
Date: 2021.09.29
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9/29/2021

Dennis Sayre, Environmental Engineer
Wastewater Enforcement Section
Water Enforcement Branch

Date

COMPLIANCE EVALUATION INSPECTION REPORT
Challenge Richmond, LLC, Project No. CV-KY0074748-072721

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COMPLIANCE EVALUATION INSPECTION REPORT
Challenge Richmond, LLC, Project No. CV-KY0074748-072721

1. INTRODUCTION

The U.S. Environmental Protection Agency, Region 4 and the Kentucky Division of Water (KDOW) conducted a Compliance Evaluation Inspection (CEI) at the Challenge Richmond, LLC facility (Facility) located at 110 Continental Drive in Richmond, Kentucky on July 27, 2021. The inspection was conducted under the authority of Section 308 of the Clean Water Act (CWA), as amended. This narrative report and attachments present the results of the inspection.

2. PARTICIPANTS

<u>Name</u>	<u>Position</u>	<u>Phone Number</u>
Dennis Sayre	EPA Inspector	404-562-9756
Brad Ammons	EPA Inspector	404-562-9769
John Hanks	KDOW Inspector	502-330-6414
Rick Baldwin	Environmental Manager	859-595-0148
Justin Grace	Engineering Manager	502-592-4967

3. FACILITY DESCRIPTION

The Facility discharges industrial storm water collected from the parking lot and loading docks located on the north side of the Facility. Collected storm water is conveyed to Outfall 001. Outfall 001 effluent is discharged into Harts Fork through a grass covered open channel ditch.

4. INSPECTION PROCEDURES

The overall objective of this CEI was to evaluate the condition and operational performance of the Facility's industrial storm water best management practices, storm water collection system and the permittee's self-monitoring program and offer compliance assistance as needed. Specific tasks included an opening conference, conducting an interview with the Facility management, reviewing Discharge Monitoring Reports (DMRs) and other records, conducting a site visit, and a closing conference.

5. FINDINGS AND CONCLUSIONS

(Refer to Attachment 1 for cited photographs)

- Storm water drains were observed on the north-northeast and north-northwest side of the Facility. Storm drain socks were installed in the grated storm drains to catch sediment and other solids, (Photos 1, 2 and 3).
- The gravel lot located on the north-northwest side of the building deposits sediment into the storm drain socks. Sediment and gravel were observed in the drainage sock. Facility management stated that they plan to pave the parking lot in front of the scrap metal dock on the northwest side of the facility, (Photo 4).
- Uncovered dumpsters on the northwest side of the Facility in the gravel parking lot. (Photo 5)
- Fence line in front of Outfall 001, northwest corner of the Facility, had drainage pipe laid next to the fence to control gravel and solids runoff from the parking lot (Photo 6).
- No discharges were observed from Outfall 001 (Photo 7).
- Silt fence lining was installed in the construction zone on the east side of the Facility. Construction activity is to extend the existing parking lot (Photos 8 and 9).
- The south side of the Facility's roof is drained to the west from a sloped area (Photo 10).

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Construction activity plans on the north side of the Facility includes paving to replace portions of the gravel parking lot, mostly in front of the scrap metal dock, to better control storm water runoff and as a part of the Facility's Zinc exceedance mitigation plan. (Figure 1)

The Facility's Stormwater Best Management Practices Plan (SWBMPP) states in Section 3.1, "Scrap metal is separated by metal type and is stored in dumpster or bins under and awning outside the northwest corner of the property structure."

ENVIRONMENTAL PL 11 ZINC EXCEEDANCE MITIGATION (STORMWATER)
7/20/21

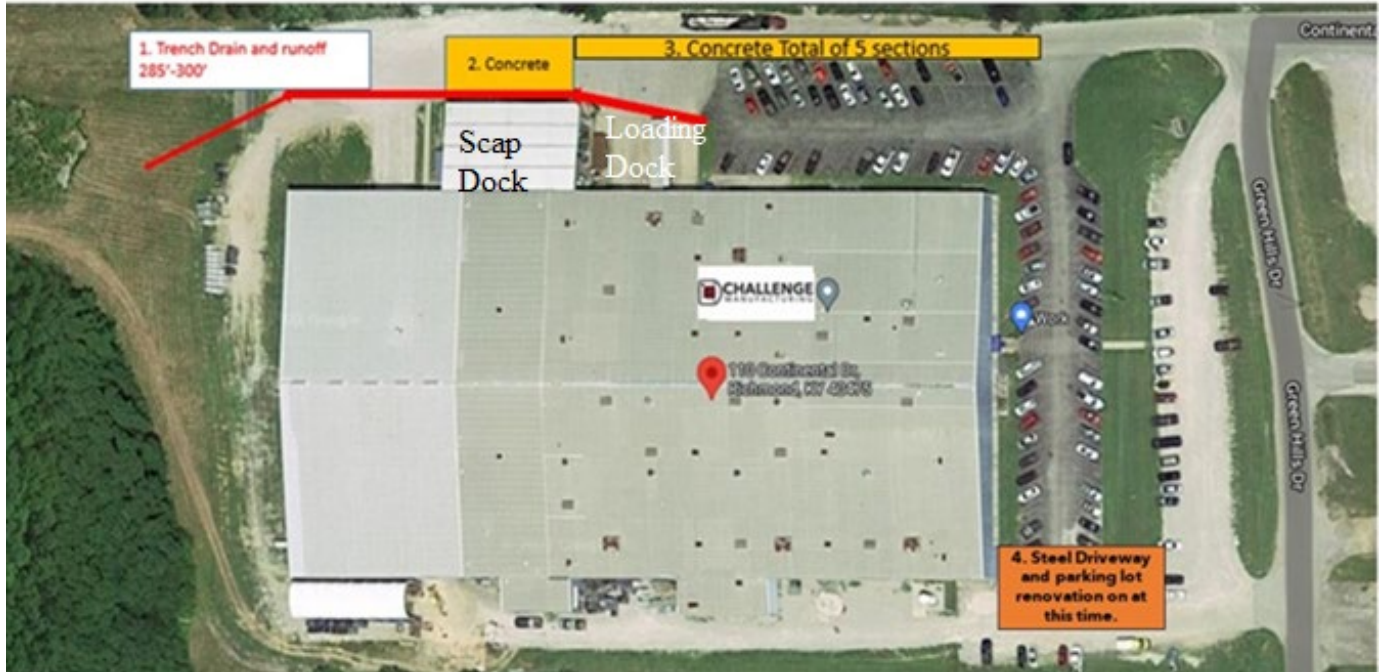


Figure 1. Construction activity map.

6. PERMIT

The National Pollutant Discharge Elimination (NPDES) permit number KY0106194 (Permit) became effective on September 1, 2018 for the previous owner, Gill Industries, Inc, and was transferred to the Facility on May 29, 2020. The Permit expires on August 31, 2023.

Pollutants of interest in the Permit includes pH, Total Suspended Solids (TSS), Oil & Grease, Hardness (as mg/l CaCO₃), and Total Recoverable Zinc. The Facility is permitted to discharge industrial storm water into Harts Fork, a tributary of Silver Creek.

7. RECORDS AND REPORTS

A review of EPA's Enforcement and Compliance History Online (ECHO) website shows the Facility to be in Significant Non-compliance for effluent exceedances and late DMR submissions. Tables 1 and 2 below is a summary of NPDES effluent limit violations and late DMR submissions.

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Table 1. Effluent limit exceedances from December 1, 2020 to June 30, 2021.

Pollutant of Interest	Effluent Limit (mg/L)	Statistical Basis	Monitoring Period End Date	DMR Value (mg/L)	DMR Report Date
TSS	30	MO AVG	7/31/2020	201	12/15/2020
TSS	60	Daily Maximum	7/31/2020	201	12/15/2020
TSS	60	Daily Maximum	8/31/2020	365	12/15/2020
TSS	30	MO AVG	8/31/2020	365	12/15/2020
Zinc	0.203	Daily Maximum	8/31/2020	0.22	12/15/2020
TSS	60	Daily Maximum	9/30/2020	204	12/15/2020
TSS	30	MO AVG	9/30/2020	204	12/15/2020
Zinc	0.203	Daily Maximum	9/30/2020	0.25	12/15/2020
TSS	60	Daily Maximum	11/30/2020	67	3/18/2021
TSS	30	MO AVG	11/30/2020	67	3/18/2021
TSS	30	MO AVG	1/31/2021	266	3/18/2021
TSS	60	Daily Maximum	1/31/2021	266	3/18/2021
Zinc	0.203	Daily Maximum	1/31/2021	0.26	3/18/2021
Zinc	0.203	Daily Maximum	3/31/2021	0.35	5/11/2021
Zinc	0.203	Daily Maximum	4/30/2021	0.28	6/24/2021
TSS	30	Monthly Average	5/31/2021	185	6/24/2021
TSS	60	Daily Maximum	5/31/2021	185	6/24/2021
Oil & Grease	10	Monthly Average	5/31/2021	32.8	6/24/2021
Oil & Grease	15	Daily Maximum	5/31/2021	32.8	6/24/2021
Zinc	0.203	Daily Maximum	5/31/2021	0.52	6/24/2021

Table 2. Late DMR records from December 1, 2020 to June 30, 2021.

Monitoring Period End Date	DMR Due Date	Ddays Late	Date DMR Submitted
6/30/2020	7/28/2020	140	12/15/2020
7/31/2020	8/28/2020	109	12/15/2020
8/31/2020	9/28/2020	78	12/15/2020
9/30/2020	10/28/2020	48	12/15/2020
11/30/2020	12/28/2020	79	3/18/2021
12/31/2020	1/28/2021	48	3/18/2021

TSS exceedances are likely a result of storm water runoff depositing gravel fines and dust from the gravel parking lot into the storm water drains. Paving the parking lot and the scrap metal dock to eliminate the gravel may address TSS exceedances. Facility management believes that storm water runoff from the galvanized roof is the source of zinc in the effluent. The Facility has in place a zinc control plan to address zinc exceedances; however, there is no current plan to replace the galvanized roof or provide a protective coating.

8. SAMPLING

McCoy & McCoy Laboratories, Inc. (Lab) conducts sampling for TSS, Oil & Grease, Hardness (as mg/l CaCO₃), and Total Recoverable Zinc. The Facility provides sampling and measures for storm water flow and pH. Various Lab analytical reports were reviewed, no deficiencies were noted. EPA

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also reviewed the Facility's logbook used to record storm water flow and pH data, including pH probe calibration. Inspectors observed that the latest data recorded in the logbook, dated July 13, 2021, indicated that the pH probe was calibrated using 4.0 pH, 7.0 pH, and 10.0 pH buffer solutions (Photo 11). EPA inspectors also observed that pH buffer solutions located next to the pH probe expired in January 2021, July 2020, and August 2020 (Photo 12). The Facility also had on-site a buffer solution for 7.0 that was within its expiration date (Photo 13). The Facility's Environmental Manager mentioned that new buffer solutions are on order.

Flow is calculated using a set volume container and mathematical formula provided to the Facility.

9. DISCUSSION

Using expired pH buffer solutions may provide inadequate pH probe calibration leading to non-representative sampling, as required by Section 2.9 of the NPDES Permit. Also, procedures should be put in place to ensure timely DMR submission to address late DMR violations and to ensure compliance with the NPDES Permit.

Storm water samples collected between June 1, 2018 and June 30, 2021 shows zinc in the analytical data for each month that samples were collected, with concentrations ranging from 0.05mg/L to 0.52mg/L. Trend data provided in Table 3 shows an increase in zinc concentration over time. If the Facility's assumption regarding the source of the zinc is correct, the trending data may be indicative of an aging galvanized coating on the Facility roof. The Facility should evaluate the alternatives to control zinc concentrations in the roof storm water runoff, to include providing a protective coating on the existing roof or replacing the roof as needed.

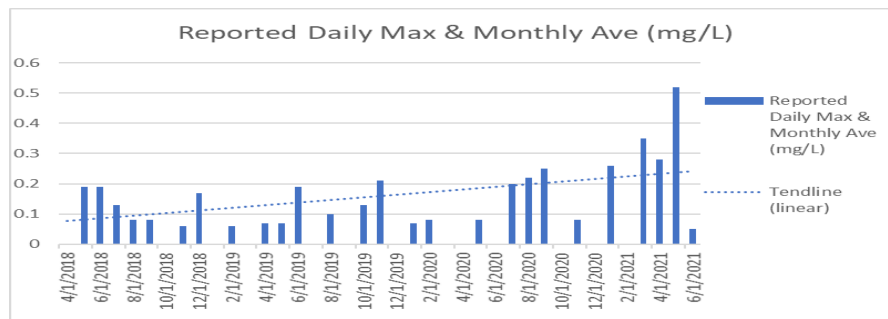


Table 3. Reported Zinc concentrations. Daily Maximum and Monthly Average reported as the same value.

Storm water contacting metal in the dumpsters can wash oxidized metal from the scrap and into the storm water runoff. Dumpsters containing scrap metal should be covered in accordance with the Facility's SWBMPP.

10. ATTACHMENTS

1. Photographs
2. ECHO screenshot

END REPORT

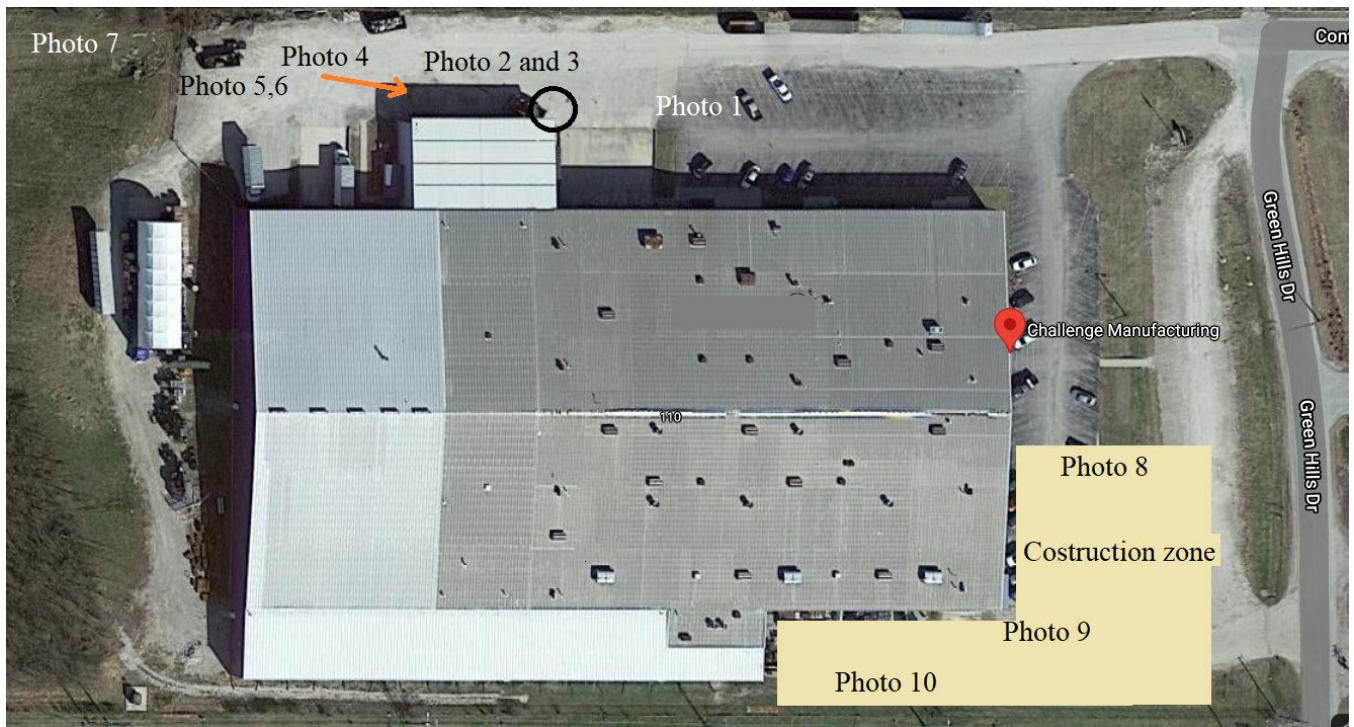


Figure A1: Photo locations.



Photo 1: Loading dock drainage and truck loading garage.
N-NE side of the building.



Photo 2: Loading area storm drainage.
N-NW side of the building.



Photo 3: Loading area storm drain sock to catch gravel and other solids inside the culvert shown in Photo 2.



Photo 4: Gravel lot. N-NW side of the building.



Photo 5: Dumpsters located in gravel lot. N-NE side of the building.



Photo 6: Fence located behind dumpsters shown in Photo 5.



Photo 7: Outfall 001 located approximately 25 feet from the fence shown in Photo 8.



Photo 8: Construction zone silt fence. East side of the building.



Photo 9: Construction zone SE corner of the building.



Photo 10: Construction zone SE corner of the building.

Date	Time	GPM	pH	INITIAL
02/10/20	1210	181.3 gph / 203 m	8.6	RB
03/19/20		102.4 gph / 11.7 m	7.7	RB
04/20		No Collection	Down / COVID	
05/19/20	0735	2140.18	7.6	RB
06/20		No Sample		
07/28/20	1428	109	7.06	7.6 RB
08/31/20	1530	288.46 / 480	7.8	RB
09/28/20	1555	264.7 / 441	8.9	RB
10/20/20	0815	108.6	7.8	RB
11/11/20	0815	101.58	7.6	RB
12/20		No Sample		
01/25/21	01/25/21	1155	144.23	8.5 RB
02/26/21	02/26/21	1530	136.77	8.8 RB
03/12/21	03/12/21	0800	128.9	8.2 RB
4/29/21	4/29/21	1300	138.8	8.1 RB
5/26/21	5/26/21	1430	127.84	7.9 RB
6/02/21	6/02/21	0735	95.74	7.6 RB
7/13/21	1447	175.09	8.2	RB

Photo 11: Facility pH and storm water flow log.



Photo 12: pH 4, 7, and 10 buffer solutions.



Photo 13: pH 7 buffer solution.

Three-Year Compliance History by Quarter

[Download Data](#)

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13+ ⓘ
CWA (Source ID: KY0074748)					04/01-06/30/18	07/01-09/30/18	10/01-12/31/18	01/01-03/31/19	04/01-06/30/19	07/01-09/30/19	10/01-12/31/19	01/01-03/31/20	04/01-06/30/20	07/01-09/30/20	10/01-12/31/20	01/01-03/31/21	04/01-08/27/21
	Facility-Level Status				Significant/ Category I Noncompliance	Significant/ Category I Noncompliance	Significant/ Category I Noncompliance	Violation Identified	Significant/ Category I Noncompliance	Significant/ Category I Noncompliance	Violation Identified	Significant/ Category I Noncompliance	Violation Identified	Significant/ Category I Noncompliance	Significant/ Category I Noncompliance	Significant/ Category I Noncompliance	Violation Identified
	Quarterly Noncompliance Report History				Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Reportable Noncompliance	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Reportable Noncompliance	Effluent - Monthly Average Limit	Reportable Noncompliance	Failure to Report DMR - Not Received	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	
	Pollutant	Disch Point	Mon Loc	Freq	Gill Industries, LLC Challenge Richmond, LLC (June 1, 2020)												
► CWA	Oil & Grease E	001 - 1	Effluent Gross	Mthly													228%
► CWA	Oil & Grease E	001 - 1	Effluent Gross	NMth													119%
► CWA	Solids, total suspended E	001 - 1	Effluent Gross	Mthly		73%	103%		100%		60%	237%		1117%	123%	787%	517%
► CWA	Solids, total suspended E	001 - A	Effluent Gross	Mthly		93%								Total Suspended Solids exceedances			
► CWA	Solids, total suspended E	001 - 1	Effluent Gross	NMth			2%					68%		508%	12%	343%	208%
► CWA	Zinc, total recoverable E	001 - 1	Effluent Gross	NMth							3%			23%		72%	156%
► CWA	Zinc, total recoverable E	001 - A	Effluent Gross	NMth	58%	8%								Total Recoverable Zinc exceedances			
	Late or Missing Discharge Monitoring Report (DMR) Measurements																
	Counts of Late DMR Measurements												12	36	24		
	Counts of Missing DMR Measurements						2	2			2	4					

Late DMRs June to December 2020.