pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Application Type	**Renewal**	Application No.	**PA0008303**
Facility Type	**Industrial**	APS ID	**732594**
Major / Minor	**Major**	Authorization ID	**1388150**

Applicant and Facility Information

Applicant Name	**Cleveland Cliffs Steelton LLC**	Facility Name	**Cleveland Cliffs Steelton LLC**
Applicant Address	215 S Front Street	Facility Address	215 S Front Street
	Steelton, PA 17113-2538		Steelton, PA 17113-2538
Applicant Contact	Ray Ajalli	Facility Contact	Ray Ajalli
Applicant Phone	(610) 683-2097	Facility Phone	(610) 683-2097
Client ID	221652	Site ID	444261
SIC Code	3312	Municipality	Steelton Borough
SIC Description	Manufacturing - Blast Furnaces And Steel Mills	County	Dauphin
Date Application Received	March 2, 2022	EPA Waived?	No
Date Application Accepted	May 12, 2022	If No, Reason	Major Facility
Purpose of Application	NPDES permit renewal		

Summary of Review

1.0 General Discussion

This fact sheet supports the second draft permit for renewal of an existing NPDES permit for discharge of treated industrial waste from an existing steel pipe manufacturing plant located in Steelton, Dauphin County. Cleveland Cliffs Steelton LLC owns and operates the plant. The site is situated on the east shore of Susquehanna River, just about two (2) miles south of Harrisburg, PA. The facility currently produces railroad rails, various shaped steel products including specialty blooms, flat bars and ingots to serve the rail transportation, forging and re-rolling industries, cold-drawing and various other industrial applications. The facility operates an electric arc furnace (EAF), a three-strand continuous bloom caster, ingot-teeming facility, ladle furnace, vacuum degasser, 44” breakdown, 35”/28” rail mill and 20” bar mill. All finished/semi-finished products during and after operation are being stored at the site. DEP categorized the facility as a major industrial wastewater facility discharging less than 250 MGD based on quality and quality of wastewater generated from the industrial activities conducted at the site. A draft permit was issued on September 8, 2023, but was not finalized due to comments from the permittee and EPA. The permit is being re-drafted to address the comments from permittee and EPA. All limitations and monitoring requirements in the draft permit issued on September 8, 2023 remains in the permit except for the changes discussed in this factsheet. A new internal monitoring point IMP 601 has been established to sample background data to calculate net limits when needed. IMP 601 replaces IMP 501 and is located upstream of an unmonitored non-contact cooling water discharge from the cooling of the 20” bar mill to the canal. Refer to the factsheet developed is support of the September 8, 2023, draft permit for the basis of the limitations and monitoring requirements. Proposed changes are discussed in the factsheet below.

Approve	Deny	Signatures	Date
X		*J. Pascal Kwedza* J. Pascal Kwedza, P.E. / Environmental Engineer	January 28, 2024
		Daniel W. Martin, P.E. / Environmental Engineer Manager	January 29, 2024
		Maria D. Bebenek, P.E. / Program Manager	January 29, 2024

Summary of Review
1.1 Public Participation DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

1.2 EPA Comments Discussion

EPA's comments on the draft permit is presented in attachment A. The first comment recommended discussion of TN and TP data that has been collected. TN and TP data has been discussed in section 1.3. The third comment requested print out of all pollutants results of the Toxic Management Spreadsheet (TMS) that does not need limitation or monitoring as well. Printouts of the missing part of the TMS are presented in attachment C. The last comment indicated that the facility does not meet the requirements for net limits, found at 40 CFR § 122.44(g). This portion of the comments were shared with the permittee. The permittee contends that all regulatory conditions for granting net effluent limits are satisfied and indicated that, without net effluent limits, it would be held responsible for discharges from other entities and external sources over which it has no control. The facility provided reasons/justification in support of the net limit request (presented in attachment B1 and B2) and requested a meeting to discuss further if needed.

EPA and DEP discussed and agreed to the proposal to establish IMP 601 (40° 13' 33.4"/76° 49' 45.3") upstream of all discharges from the facility to collect background data to be used to calculate net limits. The net limit calculation presented in the September 8, 2023, draft permit will be eliminated and replaced with subtracting the background data from the discharged data if needed to calculate net limits. The following parameters will be monitored at IMP 601: Flow, TSS, Oil and Grease, Nitrate-Nitrite, Total Nitrogen, Ammonia, TKN, Total Phosphorus, Total Lead and Total Zinc.

1.3 Total Nitrogen (TN) and Total Phosphorus (TP) Data Analysis

A summary of 4 years TN and TP data is presented on the table below. Most of the concentration data reported in mg/L presented in the last column of the table are non-detect. The loads computed were based on the detection limits used for analyzing the samples. The facility's TN and TP discharge are consistent with non-significant discharger. Quarterly monitoring requirement established in the existing permit will remain to collect additional data and to ensure discharge levels remains consistent.

DMR_RECV_DATE	OUTFALL	MONITORING_LOCATION	PARAMETER	LOAD lbs/day	CONC mg/L
4/28/2021	002	Effluent Net	Nitrate-Nitrite as N	324.892	1.5
4/28/2021	002	Final Effluent	Nitrate-Nitrite as N	324.892	1.5
4/28/2021	501	Intake	Nitrate-Nitrite as N	429	1.5
7/27/2021	002	Effluent Net	Nitrate-Nitrite as N	214.074	1
7/27/2021	002	Final Effluent	Nitrate-Nitrite as N	214.074	1
7/27/2021	501	Intake	Nitrate-Nitrite as N	286	1
10/28/2021	002	Final Effluent	Nitrate-Nitrite as N	< 21.599	< 0.2
10/28/2021	002	Effluent Net	Nitrate-Nitrite as N	< 21.599	< 0.2
10/28/2021	501	Intake	Nitrate-Nitrite as N	42.9	0.3
1/28/2022	002	Final Effluent	Nitrate-Nitrite as N	280.26	1.35
1/28/2022	002	Effluent Net	Nitrate-Nitrite as N	57.46	1.1
1/28/2022	501	Intake	Nitrate-Nitrite as N	394.68	1.38
4/15/2022	002	Final Effluent	Nitrate-Nitrite as N	231.93	1.1
4/15/2022	002	Effluent Net	Nitrate-Nitrite as N	< 210.84	1
4/15/2022	501	Intake	Nitrate-Nitrite as N	314.6	1.1
7/22/2022	002	Final Effluent	Nitrate-Nitrite as N	250.58	1.2
7/22/2022	002	Effluent Net	Nitrate-Nitrite as N	< 208.82	< 1.00
7/22/2022	501	Intake	Nitrate-Nitrite as N	343.2	1.2
10/25/2022	002	Final Effluent	Nitrate-Nitrite as N	< 212.38	< 1.00
10/25/2022	002	Effluent Net	Nitrate-Nitrite as N	< 212.38	< 1.00
10/25/2022	501	Intake	Nitrate-Nitrite as N	< 286.00	< 1.00
1/26/2023	002	Effluent Net	Nitrate-Nitrite as N	< 209.89	< 1.00
1/26/2023	002	Final Effluent	Nitrate-Nitrite as N	< 209.89	< 1.00

1/26/2023	501	Intake	Nitrate-Nitrite as N	< 286.00	< 1.00
4/13/2023	002	Final Effluent	Nitrate-Nitrite as N	< 424.93	< 2.00
4/13/2023	002	Effluent Net	Nitrate-Nitrite as N	< 424.93	< 2.00
4/13/2023	501	Intake	Nitrate-Nitrite as N	< 572	< 2.00
7/27/2023	002	Final Effluent	Nitrate-Nitrite as N	< 103.86	< 2.00
7/27/2023	002	Effluent Net	Nitrate-Nitrite as N	< 103.86	< 2.00
7/27/2023	501	Intake	Nitrate-Nitrite as N	< 286	< 2.00
10/23/2023	002	Effluent Net	Nitrate-Nitrite as N	< 430.90	< 2.00
10/23/2023	002	Final Effluent	Nitrate-Nitrite as N	< 430.90	< 2.00
10/23/2023	501	Intake	Nitrate-Nitrite as N	< 533.87	< 2.00
1/26/2024	002	Effluent Net	Nitrate-Nitrite as N	< 441.35	< 2.00
1/26/2024	002	Final Effluent	Nitrate-Nitrite as N	< 441.35	< 2.00
1/26/2024	501	Intake	Nitrate-Nitrite as N	< 572.00	< 2.00
4/24/2024	002	Effluent Net	Nitrate-Nitrite as N	< 157.34	< 2.00
4/24/2024	002	Final Effluent	Nitrate-Nitrite as N	< 157.34	< 2.00
4/24/2024	501	Intake	Nitrate-Nitrite as N	< 286.00	< 2.00
7/25/2024	002	Effluent Net	Nitrate-Nitrite as N	< 403.58	< 2.00
7/25/2024	002	Final Effluent	Nitrate-Nitrite as N	< 403.58	< 2.00
7/25/2024	501	Intake	Nitrate-Nitrite as N	< 572	< 2.00
10/28/2024	002	Effluent Net	Nitrate-Nitrite as N	< 69.60	0.37
10/28/2024	002	Final Effluent	Nitrate-Nitrite as N	69.6	0.37
10/28/2024	501	Intake	Nitrate-Nitrite as N	< 286.00	< 2.00
4/28/2021	002	Final Effluent	Total Kjeldahl Nitrogen	< 216.594	< 1.0
4/28/2021	002	Effluent Net	Total Kjeldahl Nitrogen	< 216.594	< 1.0
4/28/2021	501	Intake	Total Kjeldahl Nitrogen	< 286.0	< 1.0
7/27/2021	002	Effluent Net	Total Kjeldahl Nitrogen	< 214.074	< 1.0
7/27/2021	002	Final Effluent	Total Kjeldahl Nitrogen	< 214.074	< 1.0
7/27/2021	501	Intake	Total Kjeldahl Nitrogen	< 286	< 1.0
10/28/2021	002	Final Effluent	Total Kjeldahl Nitrogen	< 107.993	< 1
10/28/2021	002	Effluent Net	Total Kjeldahl Nitrogen	< 107.993	< 1
10/28/2021	501	Intake	Total Kjeldahl Nitrogen	< 143	< 1
1/28/2022	002	Effluent Net	Total Kjeldahl Nitrogen	< 207.60	< 1.0
1/28/2022	002	Final Effluent	Total Kjeldahl Nitrogen	< 207.60	< 1.00
1/28/2022	501	Intake	Total Kjeldahl Nitrogen	< 286.00	< 2.38
4/15/2022	002	Effluent Net	Total Kjeldahl Nitrogen	< 210.84	< 1.00
4/15/2022	002	Final Effluent	Total Kjeldahl Nitrogen	< 210.84	< 1.00
4/15/2022	501	Intake	Total Kjeldahl Nitrogen	< 286.00	< 1.00
7/22/2022	002	Effluent Net	Total Kjeldahl Nitrogen	< 208.82	< 1.00
7/22/2022	002	Final Effluent	Total Kjeldahl Nitrogen	< 208.82	< 1.0
7/22/2022	501	Intake	Total Kjeldahl Nitrogen	< 286.00	< 1.00
10/25/2022	002	Final Effluent	Total Kjeldahl Nitrogen	< 212.38	< 1.00
10/25/2022	002	Effluent Net	Total Kjeldahl Nitrogen	< 212.38	< 1.00
10/25/2022	501	Intake	Total Kjeldahl Nitrogen	< 286.00	< 1.00
1/26/2023	002	Effluent Net	Total Kjeldahl Nitrogen	< 209.89	< 1.00
1/26/2023	002	Final Effluent	Total Kjeldahl Nitrogen	< 209.89	< 1.00

1/26/2023	501	Intake	Total Kjeldahl Nitrogen	< 286.00	< 1.00
4/13/2023	002	Effluent Net	Total Kjeldahl Nitrogen	< 212.46	< 1.00
4/13/2023	002	Final Effluent	Total Kjeldahl Nitrogen	< 212.46	< 1.00
4/13/2023	501	Intake	Total Kjeldahl Nitrogen	< 286	< 1
7/27/2023	002	Final Effluent	Total Kjeldahl Nitrogen	< 51.93	< 1.00
7/27/2023	002	Effluent Net	Total Kjeldahl Nitrogen	< 51.93	< 1.00
7/27/2023	501	Intake	Total Kjeldahl Nitrogen	< 143	< 1.00
10/23/2023	002	Effluent Net	Total Kjeldahl Nitrogen	< 215.45	< 1.00
10/23/2023	002	Final Effluent	Total Kjeldahl Nitrogen	< 215.45	< 1.00
10/23/2023	501	Intake	Total Kjeldahl Nitrogen	< 266.93	< 1.00
1/26/2024	002	Final Effluent	Total Kjeldahl Nitrogen	< 220.68	< 1.00
1/26/2024	002	Effluent Net	Total Kjeldahl Nitrogen	< 220.68	< 1.00
1/26/2024	501	Intake	Total Kjeldahl Nitrogen	< 286.00	< 1.00
4/24/2024	002	Final Effluent	Total Kjeldahl Nitrogen	86.54	1.1
4/24/2024	002	Effluent Net	Total Kjeldahl Nitrogen	78.67	1
4/24/2024	501	Intake	Total Kjeldahl Nitrogen	157.3	1.1
7/25/2024	002	Effluent Net	Total Kjeldahl Nitrogen	< 201.79	< 1.00
7/25/2024	002	Final Effluent	Total Kjeldahl Nitrogen	< 201.79	< 1.00
7/25/2024	501	Intake	Total Kjeldahl Nitrogen	< 286.00	< 1.00
10/28/2024	002	Effluent Net	Total Kjeldahl Nitrogen	< 188.11	< 1.00
10/28/2024	002	Final Effluent	Total Kjeldahl Nitrogen	< 188.11	< 1.00
10/28/2024	501	Intake	Total Kjeldahl Nitrogen	< 143	< 1.00
4/28/2021	002	Final Effluent	Total Nitrogen	541.486	2.5
4/28/2021	002	Effluent Net	Total Nitrogen	541.486	2.5
4/28/2021	501	Intake	Total Nitrogen	715	2.5
7/27/2021	002	Final Effluent	Total Nitrogen	428.149	2
7/27/2021	002	Effluent Net	Total Nitrogen	428.149	2
7/27/2021	501	Intake	Total Nitrogen	572	2
10/28/2021	002	Effluent Net	Total Nitrogen	129.591	1.2
10/28/2021	002	Final Effluent	Total Nitrogen	129.591	1.2
10/28/2021	501	Intake	Total Nitrogen	185.9	1.3
1/28/2022	002	Effluent Net	Total Nitrogen	109.7	2.1
1/28/2022	002	Final Effluent	Total Nitrogen	109.7	2.1
1/28/2022	501	Intake	Total Nitrogen	300.3	2.1
4/15/2022	002	Final Effluent	Total Nitrogen	442.77	2.1
4/15/2022	002	Effluent Net	Total Nitrogen	< 442.77	< 2.10
4/15/2022	501	Intake	Total Nitrogen	600.6	2.1
7/22/2022	002	Final Effluent	Total Nitrogen	459.4	2.2
7/22/2022	002	Effluent Net	Total Nitrogen	< 459.40	< 2.20
7/22/2022	501	Intake	Total Nitrogen	629.2	2.2
10/25/2022	002	Effluent Net	Total Nitrogen	424.76	2
10/25/2022	002	Final Effluent	Total Nitrogen	424.76	2
10/25/2022	501	Intake	Total Nitrogen	572	2
1/26/2023	002	Final Effluent	Total Nitrogen	< 419.77	< 2.00
1/26/2023	002	Effluent Net	Total Nitrogen	< 419.77	< 2.00

1/26/2023	501	Intake	Total Nitrogen	< 572.00	< 2.00
4/13/2023	002	Final Effluent	Total Nitrogen	< 637.39	< 3.00
4/13/2023	002	Effluent Net	Total Nitrogen	< 637.39	< 3.00
4/13/2023	501	Intake	Total Nitrogen	< 858	< 3.00
7/27/2023	002	Final Effluent	Total Nitrogen	< 155.79	< 3.00
7/27/2023	002	Effluent Net	Total Nitrogen	< 155.79	< 3.00
7/27/2023	501	Intake	Total Nitrogen	< 429	< 3.00
10/23/2023	002	Effluent Net	Total Nitrogen	< 646.35	< 3.00
10/23/2023	002	Final Effluent	Total Nitrogen	< 646.35	< 3.00
10/23/2023	501	Intake	Total Nitrogen	< 800.80	< 3.00
1/26/2024	002	Final Effluent	Total Nitrogen	< 662.03	< 3.00
1/26/2024	002	Effluent Net	Total Nitrogen	< 662.03	< 3.00
1/26/2024	501	Intake	Total Nitrogen	< 858.00	< 3.00
4/24/2024	002	Final Effluent	Total Nitrogen	< 239.94	< 3.05
4/24/2024	002	Effluent Net	Total Nitrogen	< 239.94	< 3.05
4/24/2024	501	Intake	Total Nitrogen	< 441.87	< 3.09
7/25/2024	002	Effluent Net	Total Nitrogen	< 605.37	< 3.00
7/25/2024	002	Final Effluent	Total Nitrogen	< 605.37	< 3.00
7/25/2024	501	Intake	Total Nitrogen	< 858.00	< 3.00
10/28/2024	002	Effluent Net	Total Nitrogen	< 257.72	< 1.37
10/28/2024	002	Final Effluent	Total Nitrogen	< 257.72	< 1.37
10/28/2024	501	Intake	Total Nitrogen	< 429	< 3.00
4/28/2021	002	Final Effluent	Total Phosphorus	< 21.659	< 0.1
4/28/2021	002	Effluent Net	Total Phosphorus	< 21.659	< 0.1
4/28/2021	501	Intake	Total Phosphorus	< 28.6	< 0.1
7/27/2021	002	Effluent Net	Total Phosphorus	< 21.407	< 0.1
7/27/2021	002	Final Effluent	Total Phosphorus	< 21.407	< 0.1
7/27/2021	501	Intake	Total Phosphorus	< 28.6	< 0.1
10/28/2021	002	Final Effluent	Total Phosphorus	12.959	0.12
10/28/2021	002	Effluent Net	Total Phosphorus	12.959	0.12
10/28/2021	501	Intake	Total Phosphorus	18.59	0.13
1/28/2022	002	Effluent Net	Total Phosphorus	9.96	0.014
1/28/2022	002	Final Effluent	Total Phosphorus	17.02	0.14
1/28/2022	501	Intake	Total Phosphorus	24.88	0.12
4/15/2022	002	Effluent Net	Total Phosphorus	< 21.08	< 0.10
4/15/2022	002	Final Effluent	Total Phosphorus	< 21.08	< 0.10
4/15/2022	501	Intake	Total Phosphorus	< 28.60	< 0.10
7/22/2022	002	Final Effluent	Total Phosphorus	< 20.88	< 0.10
7/22/2022	002	Effluent Net	Total Phosphorus	< 20.88	< 0.10
7/22/2022	501	Intake	Total Phosphorus	< 28.60	< 0.10
10/25/2022	002	Final Effluent	Total Phosphorus	< 21.24	< 0.10
10/25/2022	002	Effluent Net	Total Phosphorus	< 21.24	< 0.10
10/25/2022	501	Intake	Total Phosphorus	31.46	0.11
1/26/2023	002	Final Effluent	Total Phosphorus	< 20.99	< 0.10
1/26/2023	002	Effluent Net	Total Phosphorus	< 20.99	< 0.10

1/26/2023	501	Intake	Total Phosphorus	< 28.60	< 0.10
4/13/2023	002	Final Effluent	Total Phosphorus	< 21.25	< 0.10
4/13/2023	002	Effluent Net	Total Phosphorus	< 21.25	< 0.10
4/13/2023	501	Intake	Total Phosphorus	< 28.60	< 0.10
7/27/2023	002	Final Effluent	Total Phosphorus	< 5.19	< 0.10
7/27/2023	002	Effluent Net	Total Phosphorus	< 5.19	< 0.10
7/27/2023	501	Intake	Total Phosphorus	< 14.30	< 0.10
10/23/2023	002	Final Effluent	Total Phosphorus	< 21.55	< 0.10
10/23/2023	002	Effluent Net	Total Phosphorus	< 21.55	< 0.10
10/23/2023	501	Intake	Total Phosphorus	< 26.69	< 0.10
1/26/2024	002	Final Effluent	Total Phosphorus	< 22.07	< 0.10
1/26/2024	002	Effluent Net	Total Phosphorus	< 22.07	< 0.10
1/26/2024	501	Intake	Total Phosphorus	< 28.60	< 0.10
4/24/2024	002	Final Effluent	Total Phosphorus	< 7.87	< 0.10
4/24/2024	002	Effluent Net	Total Phosphorus	< 7.87	< 0.10
4/24/2024	501	Intake	Total Phosphorus	< 14.30	< 0.10
7/25/2024	002	Effluent Net	Total Phosphorus	< 20.18	< 0.10
7/25/2024	002	Final Effluent	Total Phosphorus	< 20.18	< 0.10
7/25/2024	501	Intake	Total Phosphorus	31.46	0.11
10/28/2024	002	Final Effluent	Total Phosphorus	< 18.81	< 0.10
10/28/2024	002	Effluent Net	Total Phosphorus	< 18.81	< 0.10
10/28/2024	501	Intake	Total Phosphorus	15.73	0.11

1.4 Cleveland Cliffs Draft Permit Comment Discussion

Cleveland Cliffs provided comments on the draft permit and suggested some modifications to permit conditions, sample type changes and changes to compliance schedule. Some of their comments that DEP agrees with were addressed in the permit.

2.0 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/week	Grab
TRC	XXX	XXX	XXX	0.15	XXX	0.49	1/week	Grab
Temperature (ºF) Jan 1 - Nov 30	XXX	XXX	XXX	XXX	105	110	1/day	I-S
Temperature (ºF) Dec 1 - 31	XXX	XXX	XXX	XXX	104	110	1/day	I-S
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS Effluent Net	Report	Report	XXX	30.0	60.0	75	1/week	Calculation
TSS	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease Effluent Net	Report	Report	XXX	10.0	15.0	25	1/week	Calculation
Oil and Grease	Report	Report	XXX	Report	Report	XXX	1/week	Grab
Nitrate-Nitrite Effluent Net	XXX	Report	XXX	XXX	Report	XXX	1/quarter	Calculation
Nitrate-Nitrite	XXX	Report	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite

Outfall 002, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Nitrogen	XXX	Report	XXX	XXX	Report	XXX	1/quarter	Calculation
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen Effluent Net	XXX	Report	XXX	XXX	Report	XXX	1/quarter	Calculation
Ammonia	XXX	Report	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Ammonia Effluent Net	XXX	Report	XXX	XXX	Report	XXX	1/quarter	Calculation
TKN Effluent Net	XXX	Report	XXX	XXX	Report	XXX	1/quarter	Calculation
TKN	XXX	Report	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus Effluent Net	XXX	Report	XXX	XXX	Report	XXX	1/quarter	Calculation
Total Phosphorus	XXX	Report	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Total Aluminum	Report	Report	XXX	Report	Report	XXX	2/month	24-Hr Composite
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Copper	Report	Report	XXX	Report	Report	XXX	2/month	24-Hr Composite
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Other Comments: Total Nitrogen = Kjeldahl-N plus Nitrate-Nitrite as N.

2.1 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 005, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

2.2 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 008, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

2.3 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 015, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2)	Required
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

2.4 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 102, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/week	Grab
TSS Effluent Net	1074	2876	XXX	Report	Report	56.7	1/week	Calculation
TSS	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Oil and Grease	Report	Report	XXX	Report	Report	XXX	1/week	Grab
Oil and Grease Effluent Net	244	645	XXX	Report	Report	12.7	1/week	Calculation
Total Lead Effluent Net	Report	Report	XXX	Report	Report	XXX	1/week	Calculation
Total Lead	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Zinc Effluent Net	Report	Report	XXX	Report	Report	XXX	1/week	Calculation
Total Zinc	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite

2.5 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

<u>Outfall 112,</u> Effective Period: <u>Permit Effective Date</u> through <u>Permit Expiration Date</u>.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/week	Grab
TSS	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
TSS Effluent Net	Report	Report	XXX	Report	Report	XXX	1/week	Calculation
Oil and Grease	Report	Report	XXX	Report	Report	XXX	1/week	Grab
Oil and Grease Effluent Net	Report	Report	XXX	Report	Report	XXX	1/week	Calculation
Total Lead	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Lead Effluent Net	0.19	0.56	XXX	Report	Report	0.49	1/week	Calculation
Total Zinc Effluent Net	0.28	0.84	XXX	Report	Report	0.72	1/week	Calculation
Total Zinc	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite

2.6 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 122, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/week	Grab
TSS	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
TSS Effluent Net	Report	Report	XXX	Report	Report	XXX	1/week	Calculation
Total Lead	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Lead Effluent Net	0.20	0.60	XXX	Report	Report	1.8	1/week	Calculation
Total Zinc Effluent Net	0.30	0.90	XXX	Report	Report	2.7	1/week	Calculation
Total Zinc	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite

2.7 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

Outfall 401, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (cfs)	XXX	XXX	XXX	Report	Report Daily Max	XXX	Continuous	Measured

2.8 Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the “NPDES Permit Writer’s Manual” (386-0400-001), SOPs and/or BPJ.

Outfall 601, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
TSS	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Oil and Grease	Report	Report	XXX	Report	Report	XXX	1/week	Grab
Nitrate-Nitrite	XXX	Report	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Total Nitrogen	XXX	Report	XXX	XXX	Report	XXX	1/quarter	Calculation
Ammonia	XXX	Report	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
TKN	XXX	Report	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Total Phosphorus	XXX	Report	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Total Lead	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Zinc	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite

ATTACHMENTS

A. EPA Comments

Outlook

[External] Cleveland Cliffs Steelton, LLC (PA0008030)

From Fulton, Jennifer <Fulton.Jennifer@epa.gov>
Date Wed 10/11/2023 6:03 PM
To Kwedza, John <jkwedza@pa.gov>
Cc Bebenek, Maria <mbebenek@pa.gov>; Furjanic, Sean <sefurjanic@pa.gov>; Schumack, Maria <maschumack@pa.gov>; Martin, Daniel <daniemarti@pa.gov>; Moncavage, Carissa (she/her/hers) <Moncavage.Carissa@epa.gov>; Hales, Dana <Hales.Dana@epa.gov>; Martinsen, Jessica <martinsen.jessica@epa.gov>

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Pascal,

According to our Memorandum of Agreement, the Environmental Protection Agency (EPA) Region III has received the draft National Pollutant Discharge Elimination System (NPDES) permit for:

Cleveland Cliffs Steelton, LLC
NPDES Number: PA0008303
EPA Received: September 12, 2023
30-day Due Date: October 12, 2023

This is a major industrial permit discharging to the Susquehanna River and is a non-significant Chesapeake Bay discharger. EPA has chosen to perform a limited review of the draft permit based on 316(b) requirements, the wasteload allocation assumptions and requirements of the Chesapeake Bay TMDL, the application of net limitations, WQBEL/TBEL evaluations, and the applicable ELGs found at 40 CFR Part 420. EPA has completed its review and offers the following comments:

1. The fact sheet identifies this facility as a non-significant discharger with the potential to introduce nutrients to the Chesapeake Bay. The permit includes continued monitoring and reporting of TN and TP on a quarterly basis to collect data for Chesapeake Bay modeling efforts. There fact sheet would benefit from a discussion of the TN and TP data that has been previously collected over the previous permit term. Are the TN and TP monitoring data consistent with how Pennsylvania's Phase 3 WIP categorizes non-significant discharges? Is the facility adding a net increase of TN and TP? If so, how will PADEP address it?
2. As we discussed on our call on October 3rd, the compliance schedule for the installation of the modified traveling screens needed to be revised to be consistent with the requirements at 122.47. EPA received revisions to the schedule on October 10, 2023 which adequately addresses our concerns. Thank you for addressing our concerns and submitting those changes.
3. The Toxics Management Spreadsheet appears to be missing the last page after the *Recommended WQBELs & Monitoring Requirements* section that lists the remaining pollutants with their calculated WQBELs. Please provide this section of the printout so that EPA may complete its review of the TMS.

4. As we discussed on our October 3rd call, the net limitations in the draft permit are a bit complicated and, as a result, there are concerns as to whether the application of net limits is appropriate here. As we understand it, there are net limits at Outfall 002, and IMPs 102, 112, and 122. The intake on the Susquehanna (IMP 401) is located approximately 2 miles downstream from the discharge of 002. As such, intake sampling is conducted in the canal (IMP 501). However, it appears that process wastewater from the Central Treatment System effluent (IMP 102) is discharged to the canal and this IMP 102 receives flows from all the ELG regulated processes. So it appears that the facility is discharging their process wastewater (regulated under the ELGs) into the canal which is then sampled to be used to calculate net limits which is not appropriate. PADEP clarified that the formula to calculate the net limits was calculated using concentrations upstream of 102. However, according to the map in the application (page 28 of the PDF) the IMPs upstream of 102 are the IMPs that discharge process wastewater. IMP 501, which is the Swatara St pump station, is also located upstream but this pump station receives water from the canal. And water from the canal includes ELG associated process wastewater. In other words, it appears the facility is getting credit for pollutants they are adding to the Susquehanna River. Based on this understanding we offer the following comments on the application of net limits. EPA believes a follow up conversation is appropriate to further discuss how the net limits were calculated and to get additional clarification on the following comments:
   - 122.45(g)(4) states that *credit shall be granted if the discharger demonstrates that the intake water is drawn from the same body of water into which the discharge is made*. Based on the information provided to EPA, the intake water used for the calculation of net limits is not drawn from the same body of water into which the discharge was made. Therefore, the application of net limits for this discharge is not consistent with this regulatory requirement.
   - According to 122.45(g)(1) credits for pollutants in the permittee's intake water can be afforded if (i) *the applicable effluent limitations and standards contained in 40 CFR subchapter N specifically provide that they shall be applied on a net basis* or (ii) *the discharger demonstrates that the control system it proposes or uses to meet applicable technology-based limitations and standards would, if properly installed and operated, meet the limitations and standards in the absence of pollutants in the intake waters*. The applicable ELGs do not appear to require net limitations, as such, 122.45(g)(1)(i) does not apply. Therefore, applicability to 122.45(g)(ii) must be met and the fact sheet has not demonstrated that this regulatory requirement has been met in order for the permittee to be afforded intake credits.
   - 122.45(g)(2) states that *credit for generic pollutants such as TSS should not be granted unless the permittee demonstrates that the constituents of the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere*. The fact sheet does not include a discussion of whether this regulatory requirement was met for the net limits for TSS.

Please address the above and provide us with any changes to the draft permit and/or fact sheet, if necessary. Please contact Carissa Moncavage to set up a call to discuss further via telephone at 215-814-5798 or via electronic mail at moncavage.carissa@epa.gov.

Thank you,
Jen Fulton

B. 1. Cleveland Cliffs' Net Limit Request Justification

DATE: JUNE 21, 2024

Cleveland-Cliffs Steelton Net Effluent Limits for Technology-Based Effluent Limits
Response to USEPA Email from March 14, 2024
IMPs 102, 112, 122 and Outfall 002

We have carefully reviewed EPA's March 14, 2024, email in which Carissa Moncavage asserts that the Cleveland-Cliffs Steelton facility (Steelton) does not meet the requirements for net limits, found at 40 CFR § 122.44(g). Respectfully, we ask that this assertion be reconsidered and request a call to discuss with the Department and EPA. All regulatory conditions for granting net effluent limits are satisfied.

As more fully explained below, without net effluent limits, Cleveland-Cliffs would be held responsible for discharges from other entities and external sources over which it has no control. This is a fundamental reason why intake credits exist in the regulation and why intake credits should be granted in this case.

We are providing the following information in further support of our request.[1]

As you know, 40 CFR § 122.45(g) allows the permitting authority, here PADEP, to grant net credits for the quantity of pollutants in the intake water if properly installed and operated pollution control technology would meet the applicable effluent guidelines limitations and standards in the absence of the pollutants in the intake water. To be eligible for a credit, the following criteria must be met:

(1) The discharger demonstrates that the control system it proposes or uses to meet applicable technology-based limits would, if properly installed and operated, meet the limitations and standards in the absence of pollutants in the intake waters;

(2) Credit for generic pollutants such as BOD and TSS is not granted unless the permittee demonstrates that the constituents of the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere;

(3) Credit shall be granted only to the extent necessary to meet the applicable limitation or standard, up to a maximum value equal to the influent value; and

(4) Credit shall be granted only if the discharger demonstrates that the intake water is drawn from the same body of water into which the discharge is made. The Director may waive this requirement if he finds that no environmental degradation will result.

Cleveland-Cliffs Steelton ("Steelton") meets all four criteria and is eligible to receive net intake credits in its NPDES permit for IMPs 102, 112 and 122, as well as Outfall 002.

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[1] Steelton's initial response to this issue was provided to the Department on January 10, 2024.

> ***(1) The discharger demonstrates that the control system it proposes or uses to meet applicable technology-based limits would, if properly installed and operated, meet the limitations and standards in the absence of pollutants in the intake waters.***

As an overview, Steelton withdraws water from the Susquehanna River via the East End Pump Station which supplies the plant water supply basin. The plant water supply basin is a channel approximately 2.5 miles long. Significant quantities of discharge from the Dura-Bond tubular products plant and stormwater runoff from the Borough of Steelton enter the plant water supply basin prior to the water being used within the Steelton Plant (i.e., prior to the Swatara St. Pump Station (IMP 501).

Available data and engineering knowledge of the capability of Steelton's wastewater system demonstrate that controls at the Steelton Plant can meet the applicable TBELs in the absence of additional pollutant loading in the intake water. Attachment B of our January 10th, 2024, submittal demonstrates that the applicable TBELs would be achieved in the absence of the pollutant in the intake water. Therefore, the criterion under § 122.45(g)(1) is met.

> ***(2) Credit for generic pollutants such as BOD and TSS is not granted unless the permittee demonstrates that the constituents of the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere.***

Steelton's submittal of January 10, 2024, contains a detailed assessment showing that the inorganic pollutants that would contribute to TSS in the intake are substantially similar to those in the effluent, and that any organic contribution to TSS in the intake and effluent would be low in magnitude and substantially similar. EPA made no substantive comment on this assessment in its March 14, 2024, response.

Steelton acknowledges the EPA's comments regarding the discharge from IMP 102 entering the plant water supply basin. It is not Steelton's intent to claim any credit for the constituents in this discharge. Rather, as suggested by PADEP, Steelton will establish a sampling point prior to the discharge of IMP 102 into the plant water supply basin (IMP 601), so that the pollutants being contributed to the facility's intake water from external sources can be quantified, while excluding any contribution from Steelton[2].

> ***(3) Credit shall be granted only to the extent necessary to meet the applicable limitation or standard, up to a maximum value equal to the influent value.***

EPA states in its March 14, 2024, email that because Steelton can meet its effluent limits without the application of net limits, it is not eligible to receive net limits. We acknowledge that credits can only be granted "to the extent necessary to meet the applicable limitation or standard." **However, Steelton has no control over the quality of the water withdrawn from the East End Pump Station or the discharges from the Dura-Bond facility or the Borough of**

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[2] This approach will rely on sampling instead of calculation (as is current practice) to eliminate any credit for the 102 discharges.

Steelton. The potential variability in the quality of the intake water, without the application of net limits, could significantly impact Steelton's ability to meet the effluent limitations in its own NPDES permit, through no fault of its own and with no change in its own processes. Without net limits, Steelton could be held responsible for the pollutants from external sources.

The purpose of the net intake credit provision is to ensure dischargers are not being held responsible for the pollution of others. In this situation, Steelton should not be held responsible for the pollutants in its intake water from Dura-Bond, the Borough of Steelton, or the Susquehanna River. EPA has stated that it believes "a discharger should not be held responsible for pollutants already existing in its water supply." 44 *Fed. Reg.* 32,865 (June 7, 1979).

Courts have similarly held that a discharger should not be held responsible for the pollutants of others. In *Pennsylvania Public Interest Research Group, Inc. v. Department of Environmental Remediation*, the Pennsylvania Environmental Hearing Board stated that "[t]he rationale for allowing intake credits is that one should not be held responsible for pollution created by others." *Pennsylvania Public Int. Res. Group, Inc. v. Dep't Env't Rem.*, No. 89-173, 1991 WL 168042, at *3 (Pa. Env't Hrg. Bd. July 16, 1991) (". . . the entire concept of intake credits is premised on the idea that a discharger should not be held responsible for circumstances (such as the quality of its intake water) which are beyond its control.").

In light of EPA directives and Pennsylvania case law, Steelton should not be held responsible for the quality of its intake water, for which it has no control, and the net intake credit should, therefore, be granted.

> ***(4) Credit shall be granted only if the discharger demonstrates that the intake water is drawn from the same body of water into which the discharge is made. The Director may waive this requirement if he finds that no environmental degradation will result.***

Steelton's withdrawal is from the Susquehanna River at the East End Pump Station. Steelton's effluent from Outfall 002 is also discharged to the Susquehanna River.

While the effluent from IMP 102 discharges to the plant water supply basin, the regulation explicitly allows the Director, meaning the permitting authority, to waive this fourth criterion if environmental degradation will not result. *See Nat. Res. Defense Council, Inc. v. Env't Prot. Agency*, 859 F.2d 156, 228 (D.C. Cir. 1988) ("Second, credit for pollutants in intake water that has been drawn from a body of water different from that into which the discharge flows will be granted only if this will lead to no environmental degradation. . . . It is preferred to leave this matter to the discretion of its permit writers.").

No environmental degradation results from the application of net intake credits at the Steelton Plant; on the contrary, Steelton actually provides an environmental benefit to the Susquehanna River and Steelton Borough because it treats the discharges coming from Dura-Bond and the stormwater runoff from Steelton Borough. The net intake credits provide Steelton the ability and the flexibility to continue treating Dura-Bond's and Steelton Borough's water that would otherwise enter the Borough's stormwater system and/or directly or indirectly enter the

Susquehanna River. In addition, by Steelton accepting the Dura-Bond and Borough water, the volume of water withdrawn from the Susquehanna River is decreased. These environmental benefits support the granting of net credits and justify the permitting authority allowing the waiver in 40 CFR § 122.45(g)(4).

EPA itself has supported the position that "the permitting authority is best positioned to decide when net credits are appropriate" and that the permitting authority has "some discretion available . . . to waive th[is] requirement on a case-by-case basis" if no environmental degradation will result. 49 *Fed. Reg.* 38,026 (Sep't 26, 1984). As you know, PADEP is the delegated permitting authority and has discretion to grant a waiver to § 122.45(g)(4). PADEP has, and continues, to include net intake limits in Steelton's permit, thus agreeing that Steelton meets the regulatory criteria for such credits.

In light of EPA's comments regarding Outfall 002 being two miles upstream of the East End Pump Station, PADEP has suggested that Steelton establish a new monitoring point upgradient of Outfall 002, to account for any constituents in the Steelton discharge. Steelton believes that Outfall 002 should not be expected to impact water quality at the East End Pump Station given the distance between Outfall 002 and the East End Pump Station and the relative Outfall 002 and Susquehanna River flow rates.

As set forth above, Steelton believes that it meets the regulatory criteria under § 122.45(g) and that it is appropriate to include net intake credits in the Steelton's NPDES permit.

B. 2. Cleveland Cliffs' Net Limit Request Justification

Cleveland-Cliffs Steelton Net Effluent Limits for Technology-Based Effluent Limits
Response to USEPA Comment No. 4 of October 11, 2023, Email
IMPs 102, 112, 122 and Outfall 002
TSS, Oil & Grease, Lead and Zinc

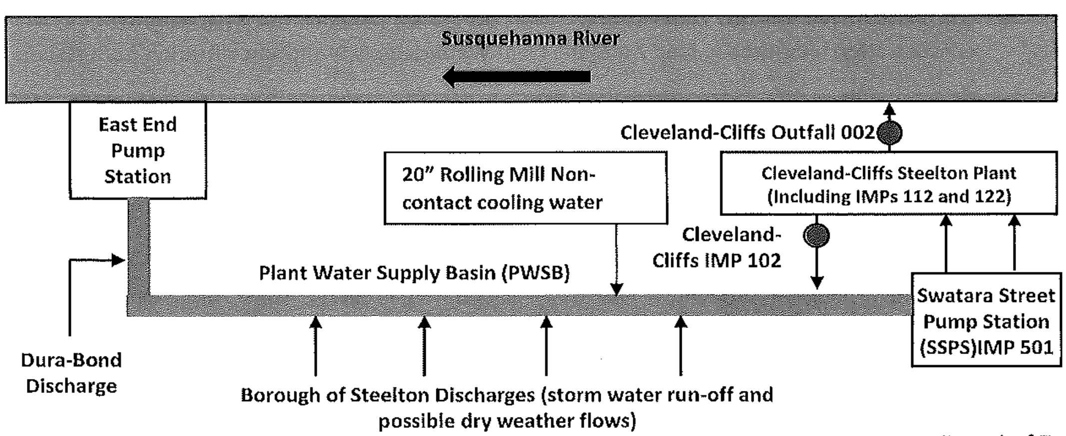
To respond to USEPA's comment with concern over the "net" effluent limits for the referenced pollutants at Outfalls 102, 112, 122, and 002, pertinent background information and a review of the regulatory requirements for "intake credits" at 40 CFR Part 122.45(g) is provided below for the Steelton Plant.

In summary, the circumstances at the Steelton Plant meet the regulatory requirements for "intake credits" at Outfalls 102, 112, 122 and 002 under the applicable regulations, and the net effluent limits as proposed in the draft renewal NPDES permit should be continued into the final renewal NPDES permit.

<u>Background and General Description of Steelton Plant Intake</u>

Water used by the Steelton Plant to support plant operations is a combination of process water discharge from the neighboring Dura-Bond tubular products manufacturing facility, discharges (run-off) from the Borough of Steelton and Susqueahanna River water. Due to these unique circumstances, Cleveland-Cliffs believes it is appropriate to establish "net" effluent limits, where the *addition* of pollutants by the Steelton Plant is compared to the applicable technology-based effluent limits because Cleveland-Cliffs has no control over the quality of discharges from the Dura-bond facility, the Borough of Steelton and the water quality of the Susquehanna River.

Cleveland-Cliffs withdraws water from the Susquehanna River via the 'East End Pump Station'. The 'East End Pump Station' supplies the plant water supply basin. The plant water supply basin is a channel approximately 2.5 miles long that also receives discharges from the Borough of Steelton, the Dura-Bond tubular products plant, the Cleveland-Cliffs Steelton Plant IMP 102 (central wastewater treatment plant effluent), and non-contact cooling water from the Steelton Plant 20" Rolling Mill Complex. Cleveland-Cliffs' Swatara Street Pump Station is located at the west end of the plant water supply basin and supplies the Steelton Plant with water to support plant operations. A general water line diagram is provided below.



Page 1 of 7

Calculation of "Net" Discharges from IMP 102, 112, 122 and 002

For NPDES permits prior to 2017, the facility calculated "net" discharges based upon samples collected at the Swatara Street Pump Station. That is, the concentration measured at the Swatara Street Pump Station was subtracted from the concentration measured at the subject outfalls to report the net discharges. During renewal of the NPDES permit in the 2016 timeframe, the Department initially proposed to move the location for the net intake samples from the Swatara Street Pump Station to the East End Pump Station. The facility then proposed the approach below for calculating net discharges which accounts for Dura-Bond and Borough of Steelton discharges to the plant water supply basin that are beyond the control of the facility. The facility's approach simply subtracts IMP 102 data (loading) from the IMP 501 data (loading) to arrive at a calculated concentration in the plant water supply basin upstream of Outfall 102. This approach is conceptually and mathematically consistent with an intake credit, and does not allow the facility to take "credit" for its own IMP 102 treated process wastewater discharge[1]. The Department agreed with this approach in 2016, and included this net limit calculation in the effective NPDES permit (a mathematically equivalent equation is provided as Part I. A footnote 4 of the effective and draft permits)[2].

1) Measure the pollutant loading at the Swatara Street Pump Station IMP 501 (measured flow rate and concentration)

2) Measure the gross pollutant discharge loading from IMP 102 (measured flow and concentration)

3) Calculate the loading of the Plant Water Supply Basin upstream of IMP 102 as the difference between the Swatara Street pump station IMP 501 loading and the gross IMP 102 loading.

4) Calculate the flow rate of the Plant Water Supply Basin upstream of IMP 102 as the difference between the Swatara Street Pump Station IMP 501 flow rate and the IMP 102 flow rate.

5) Calculate the concentration of the Plant Water Supply Basin upstream of IMP 102 from the Plant Water Supply Basin loading calculated in step 3 and the Plant Water Supply Basin flow rate in step 4.

6) Calculate the net IMP 102 concentration as the difference between the gross IMP 102 concentration measured in step 2 and the Plant Water Supply Basin concentration from step 5.

7) Calculate the net IMP 102 mass loading from the net IMP 102 concentration from step 6 and the IMP 102 flow measured in step 2.

The following is an excerpt from effective and draft renewal NPDES permit (mathematically equivalent to above calculation):

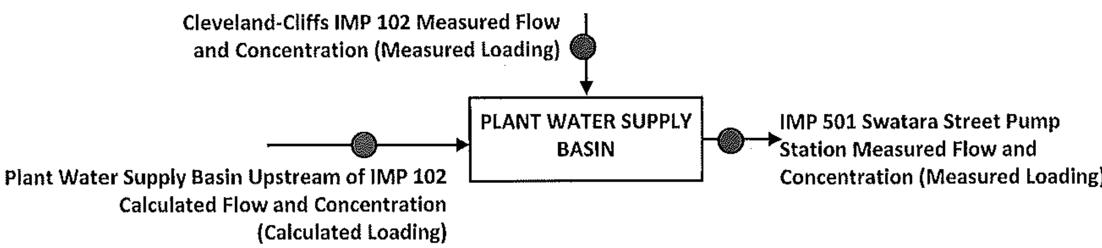
[1] The calculation does not allow the facility to take "credit" for its own IMP 102 discharge. Furthermore, the East End Pump station on the Susquehanna River is approximately 2.4 miles downstream of Outfall 002, and cannot reasonably be considered to be influenced by the Outfall 002 discharge for TSS, oil & grease, lead and zinc at the permitted discharged loadings from IMPs 102, 112 and 122.

[2] See September 2016 NPDES permit fact sheet.

(4) Effluent Net concentration values shall be calculated by subtracting actual intake concentration values from actual effluent concentration values of each monitoring point(s). Actual intake concentration values shall represent pollutant concentration levels in the plant water supply basin (Pennsylvania Canal) immediately upstream of IMP 102 discharge and shall be calculated as the difference between the IMP 501 mass loading and the IMP 102 mass loading divided by multiplication of 8.34 (conversion factor) and the difference between the IMP 501 flow rate and IMP 102 flow rate ($IMP501_{mass} - IMP\ 102_{mass}$) / ([$IMP501_{flow} - IMP102_{flow}$] * 8.34). Effluent Net mass loading values must also be calculated in the same manner and all mass loading values must be calculated by multiplying actual flow (MGD) by concentrations (mg/L), then multiplying by 8.34. In order to accurately determine these Effluent Net values, the permittee must collect intake and effluent samples on the same day and determine mass loading using the flow data for intake and effluent on that day. All calculations including calculated intake concentration and mass loading values must be submitted as an attachment to the DMR(s).

Likewise, the calculated concentration in the plant water supply basin upstream of IMP 102 is used as the intake concentration for the IMP 112, IMP 122 and Outfall 002 net discharge calculations.

The net calculation listed above is a mass balance around the plant water supply basin upstream of IMP 102 and the Swatara Street pump station. There are no substantive discharges to the plant water supply basin between IMP 102 and the Swatara Street Pump Station. An example calculation is provided as Attachment A. A simplified mass balance diagram and the equations described in steps 1 to 7 are provided below.



Step 1) Q_{501} mgd x C_{501} mg/l x 8.345 = L501 lbs/day
Step 2) Q_{102} mgd x C_{102} mg/l x 8.345 = L_{102} lbs/day

Step 3) L_{PWSB} lbs/day = L_{501} lbs/day – L_{102} lbs/day
Step 4) Q_{PWSB} mgd = Q_{501} mgd – Q_{102} mgd
Step 5) C_{PWSB} mg/l = L_{PWSB} lbd/day / (Q_{PWSB} x 8.345)

Step 6) C_{102} net mg/l = C_{102} mg/l – C_{PWSB} mg/l
Step 7) L_{102} net lbs/day = C_{102} net mg/l x 8.345 x Q_{102} mgd

Where:

Q_{501} mgd = Swatara Street Pump Station Flow, measured
C_{501} mg/l = Swatara Street Pump Concentration, measured
L_{501} lbs/day = Swatara Street Pump Station loading, calculated

Q_{102} mgd = IMP 102 flow rate, measured
C_{102} mg/l = IMP 102 gross concentration, measured
L_{102} lbs/day = IMP 102 gross mass loading, calculated

L_{PWSB} lbs/day = Plant Water Supply Basin Loading, calculated
Q_{PWSB} mgd = Plant Water Supply Basin Flow, calculated
C_{PWSB} mg/l = Plant Water Supply Basin Concentration, calculated

C_{102} net mg/l = IMP 102 net concentration, calculated
L_{102} net lbs/day = IMP 102 net loading, calculated

To simplify the net discharge calculation, Cleveland-Cliffs is amenable to installing a monitoring location in the plant water supply basin upstream of any contribution from the Steelton Plant, and using these results in the net discharge calculation as follows for each day of monitoring. The plant water supply basin monitoring location would be named IMP 601. Under this approach monitoring at location 501 would be unnecessary.

Net concentration (Outfall Y) = Outfall Y gross concentration – Plan Water Supply Basin concentration (IMP 601)

Net loading (Outfall Y) = Outfall Y net concentration * Outfall Y flow rate

Where Outfall Y = Outfalls 102, 112, 122 and 002, respectively

Until such time as IMP 601 is installed and operating, Cleveland-Cliffs would report the gross discharge under both the "gross" and "net discharge" rows in the eDMR.

Review of 40 CFR 122.45(g) Intake Credits: Outfalls 102, 112, 122 and 002

A review of each regulatory requirement at 40 CFR 122.45(g) for intake credits at the Steelton Plant is provided below.

(g) **Pollutants in intake water.**

(1) Upon request of the discharger, technology-based effluent limitations or standards shall be adjusted to reflect credit for pollutants in the discharger's intake water if:

(i) The applicable effluent limitations and standards contained in 40 CFR subchapter N specifically provide that they shall be applied on a net basis; or -

(ii) The discharger demonstrates that the control system it proposes or uses to meet applicable technology-based limitations and standards would, if properly installed and operated, meet the limitations and standards in the absence of pollutants in the intake waters.

The ELGs for the Iron and Steel industry and the Department's reported basis for the Outfall 002 TSS and oil & grease limits are not specified on a net basis. Accordingly, intake credits can be granted based on 122.45(g)(1)(ii) above. The graphs in Attachment B demonstrate that the applicable TBELs would be achieved in the absence of the pollutant in the intake water. The graphs in Attachment B are plots of the IMP 102, 112 and 122 net discharge loadings and Outfall 002 TSS and oil & grease net concentrations with the calculated plant water supply basin concentration removed (i.e., discharges in the absence of the pollutants in the intake water). The provision of 122.45(g)(1)(ii) is therefore satisfied because the control system would meet the TBELs in the absence of the pollutants in the intake water.

> *(2) Credit for generic pollutants such as biochemical oxygen demand (BOD) or total suspended solids (TSS) should not be granted unless the permittee demonstrates that the constituents of the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere.*

Using monitoring data collected with the NPDES permit renewal application, the top three inorganic pollutants with the potential to constitute TSS at IMP 102, the East End Pump Station and Swatara Street Pump Station are the same at all three locations. Those pollutants are iron, aluminum and manganese.

2021 NPDES Permit Renewal Application Inorganic Pollutants with Potential to Contribute to TSS

IMP 102			East End Pump Station			Swatara St. Pump Station-IMP 501		
Concentration Rank	Inorganic Pollutant	Avg. Conc. mg/L	Conc. Rank	Inorganic Pollutant	Avg. Conc. mg/L	Conc. Rank	Inorganic Pollutant	Avg. Conc. mg/L
1	T. Iron	1.37	1	T. Iron	1.41	1	T. Iron	0.68
2	T. Al	0.157	2	T. Al	0.275	2	T. Al	0.125
3	T. Mn	0.157	3	T. Mn	0.116	3	T. Mn	0.056

In November 2023, Cleveland-Cliffs performed three additional sampling events at the East End Pump Station, at the Plant Water Supply Basin upstream of any Steelton Plant discharges, and at Outfall 102. These samples were analyzed for aluminum, iron, manganese, and silica as both total metal and as "dissolved metal" using a TSS filter and sample filter.[3] By using a TSS filter as the sample filter, the difference between the total results and the "dissolved result" is the amount of the metal that contributes to the TSS of the sample.

These results again showed that iron was the top inorganic substance contributing to TSS of the parameters analyzed.

[3] All results obtained from this sampling effort are provided in Attachment C.

IMP 102			**East End Pump Station**			**Plant Water Supply Basin**		
Conc. Rank	Inorganic Pollutant	Avg. Conc. (Total – Diss), mg/L	Conc. Rank	Inorganic Pollutant	Avg. Conc. (Total - Diss), mg/L	Conc. Rank	Inorganic Pollutant	Avg. Conc. (Total – Diss), mg/L
1	**Iron**	**0.48**	**1**	**Iron**	**0.31**	**1**	**Iron**	**0.15**
2	Silica	0.23	2	Al	0.21	2	Mn	0.01
3	Mn	0.14	3	Mn	0.04	3	Silica	0
4	Al	< 0.11	4	Silica	0.03		Al	Can not calculate

Furthermore, the total organic carbon (TOC) concentration of IMP 102, the East End Pump Station and the Swatara Street Pump station are similar and low magnitude, indicating that than any organic contribution to TSS would likely be similar.

2021 NPDES Permit Renewal Application Total Organic Carbon Concentrations

Location	NPDES Permit Renewal Application Average TOC Concentration, mg/L
IMP 102	5.5
East End Pump Station	2.6
Swatara Street Pump Station	3.1

Considered collectively, the information above demonstrates that the constituents of TSS in the IMP 102 discharge are substantially similar to the constituents of TSS in the intake water, and therefore the condition of 40 CFR 122.45(g)(2) is satisfied.

Regarding the Outfall 002 net TSS limits, *appropriate additional limits are placed on process water pollutants* at Outfall 102 (i.e., TSS is limited at the Outfall 102 process water discharge). Therefore, the conditions of 40 CFR 122.45(g)(2) are satisfied for net TSS limits at Outfall 002.

> *(3) Credit shall be granted only to the extent necessary to meet the applicable limitation or standard, up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with permit limits.*

Under the draft permit, both the gross and net discharge loadings are required to be reported. Therefore, the reported data is sufficient to determine when the intake credit was necessary to achieve the limitation. Cleveland-Cliffs believes this reporting requirement satisfies this condition of the intake credits. In the alternative, Cleveland-Cliffs would be amenable to reporting in the "net" discharge row in the eDMR, the net discharge only when necessary to meet the limit. Under this alternative, the gross discharge would be reported under both the "gross" and "net" discharge row when the gross discharge meets the limitation.

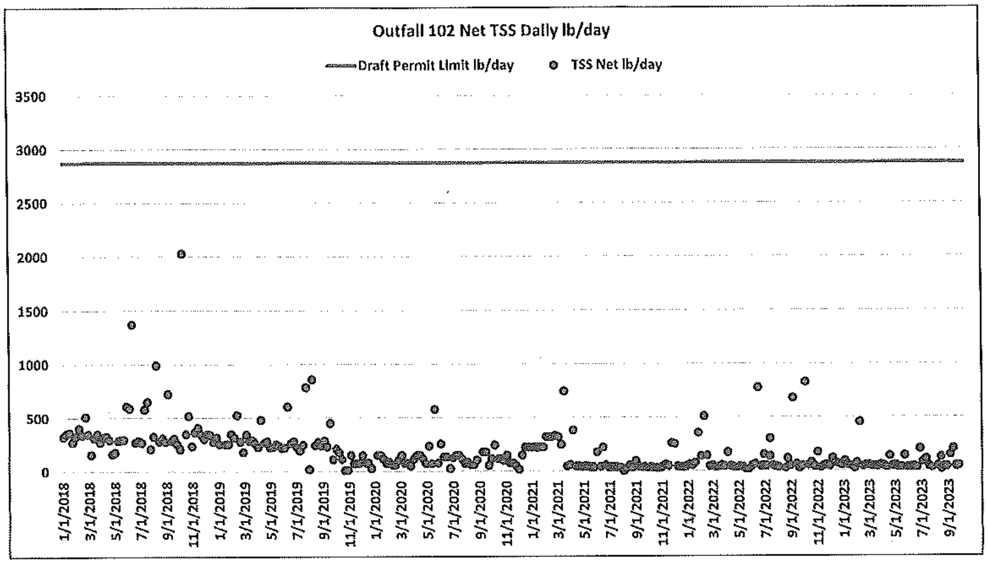
> *(4) Credit shall be granted only if the discharger demonstrates that the intake water is drawn from the same body of water into which the discharge is made. The Director may waive this requirement if he finds that no environmental degradation will result.*

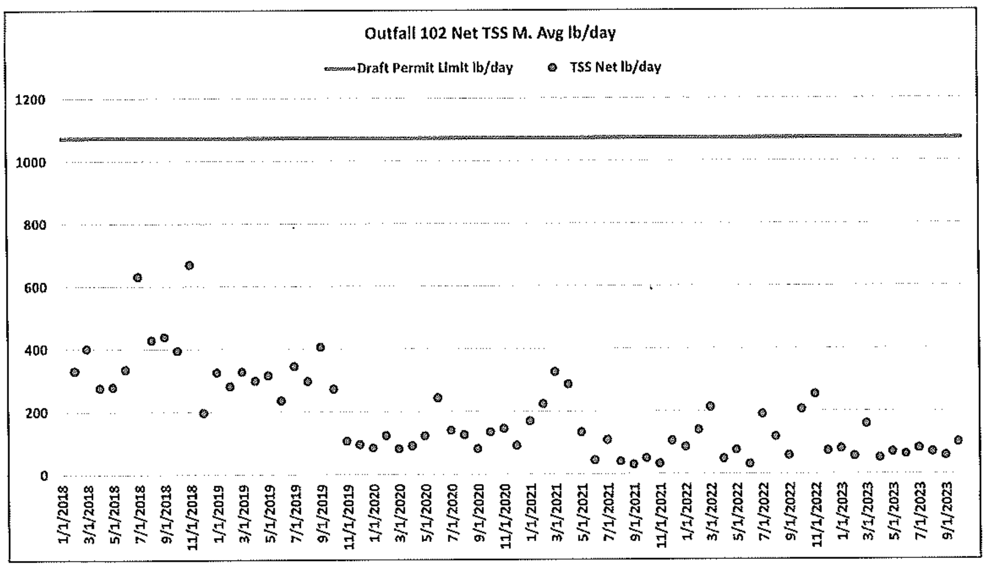
The intake water is drawn from the same body of water into which the discharge is made: the Susquehanna River. Therefore, this condition is satisfied.

(5) This section does not apply to the discharge of raw water clarifier sludge generated from the treatment of intake water.

This section does not apply to the Steelton Plant intake credits.

ATTACHMENT B: Demonstration of compliance in the absence of pollutants in the intake water





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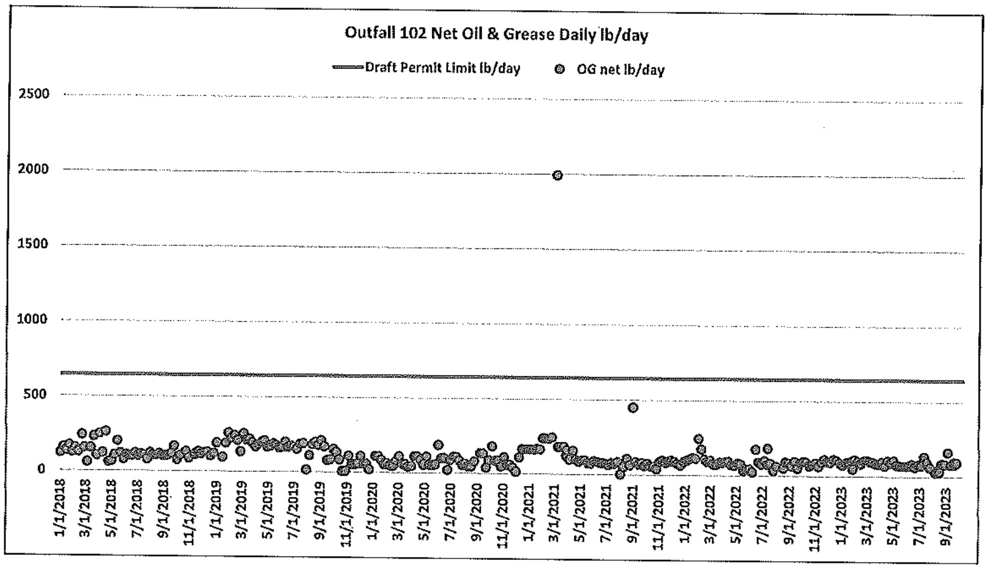

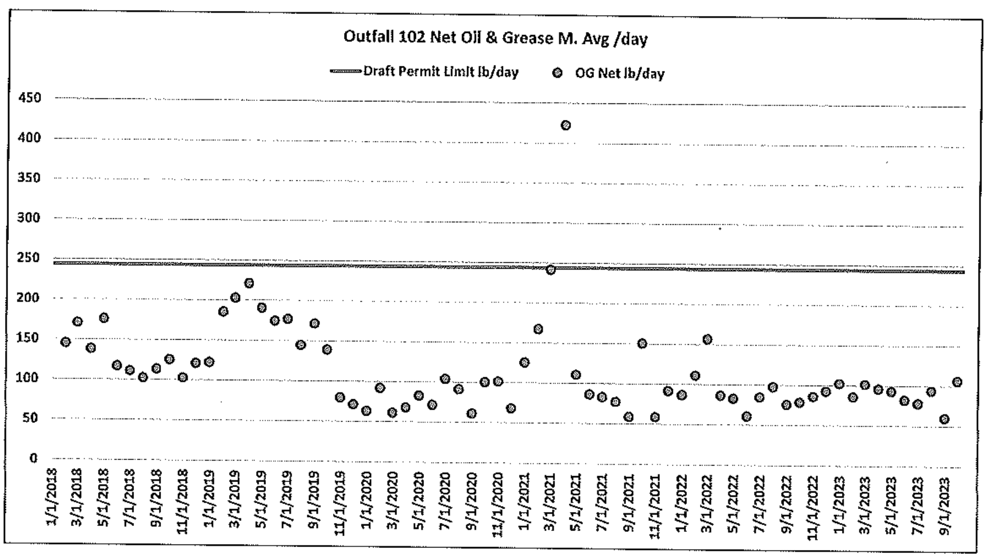

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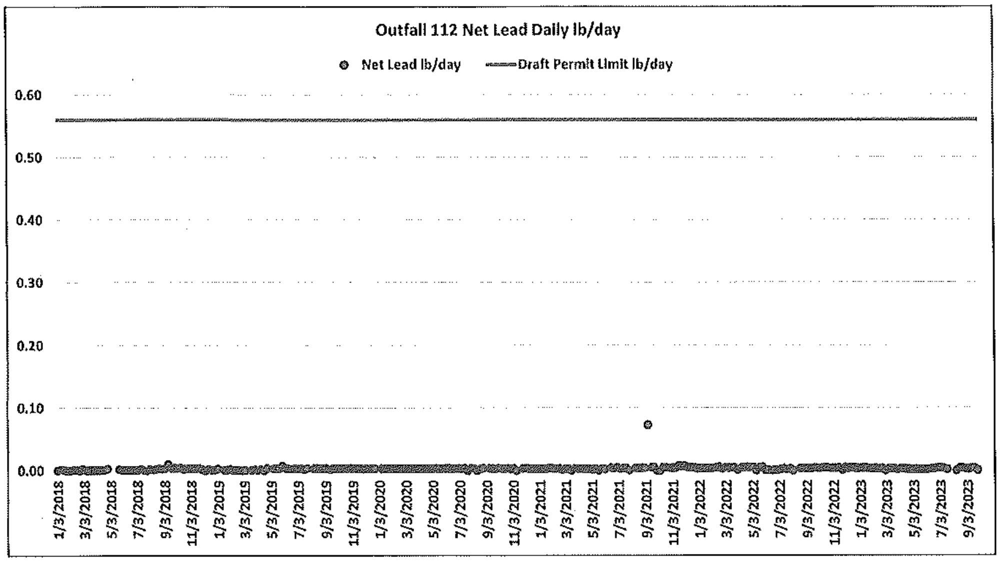

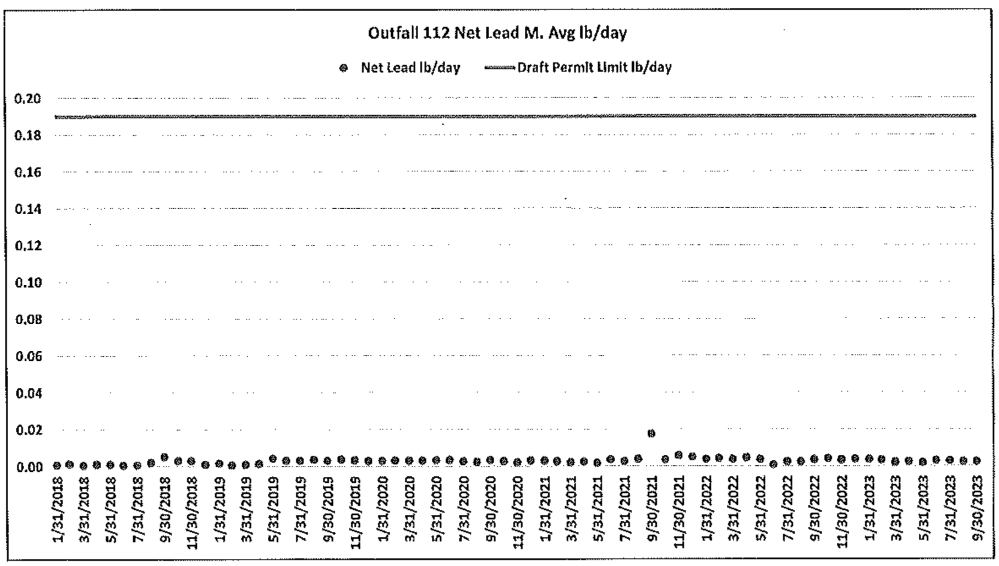

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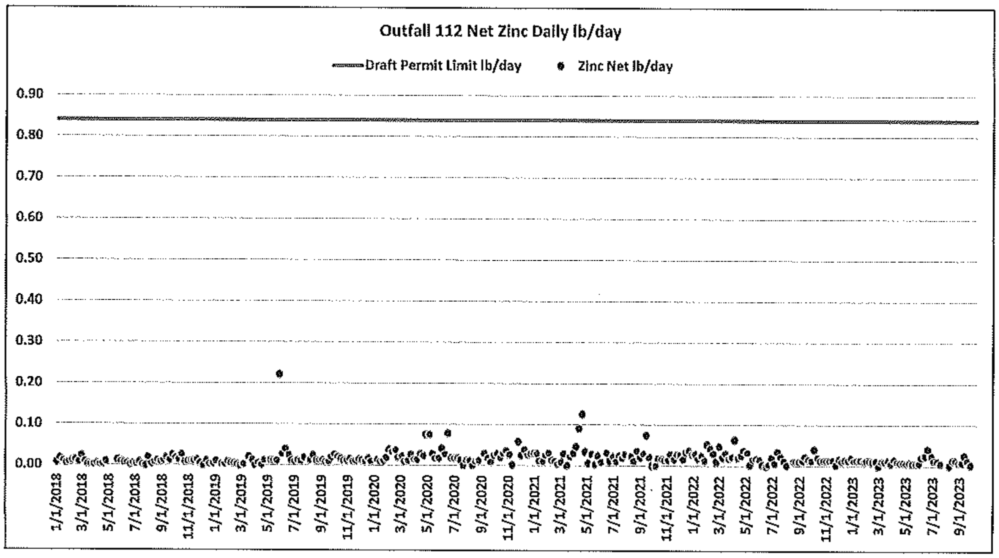

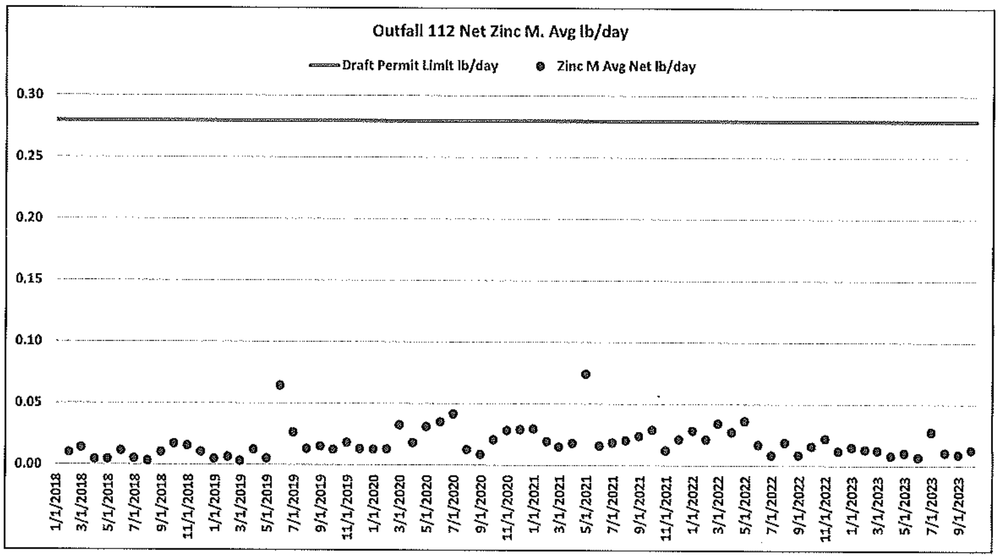

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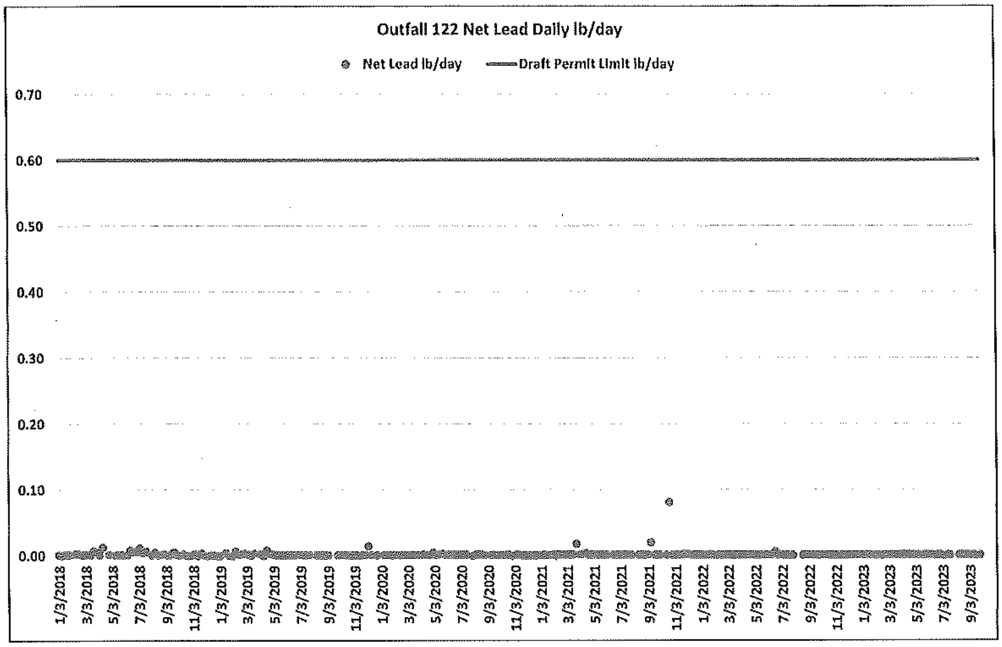

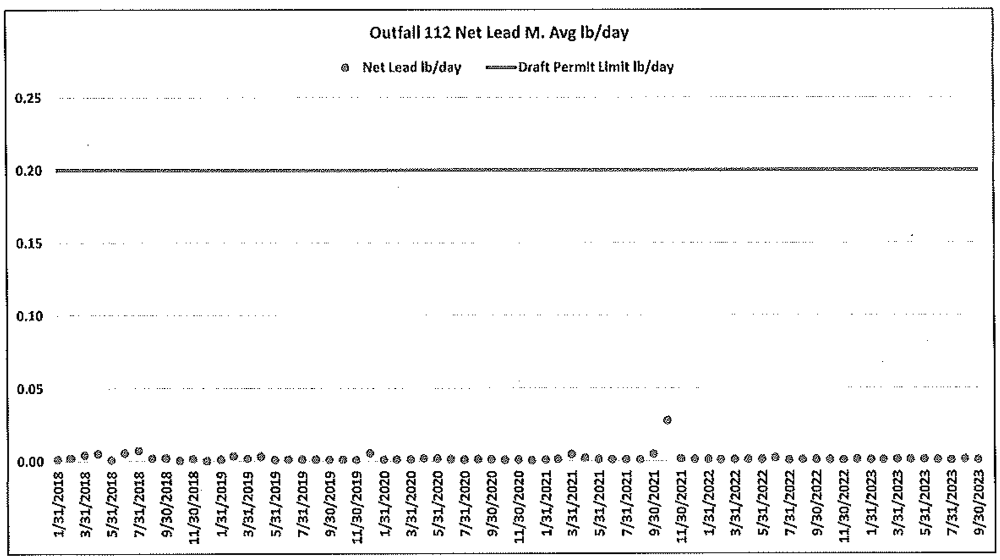

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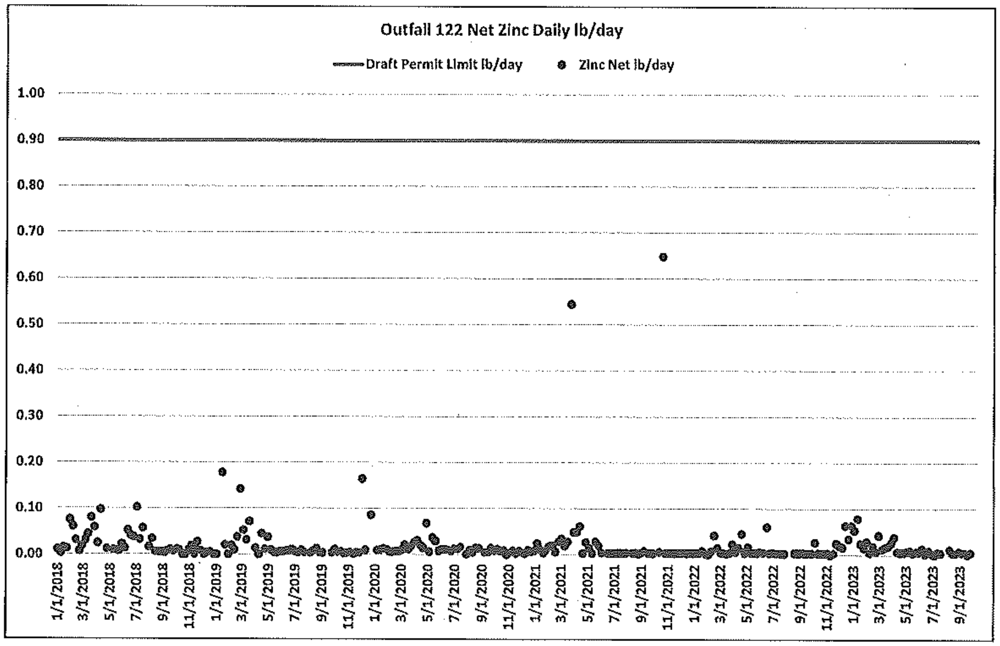

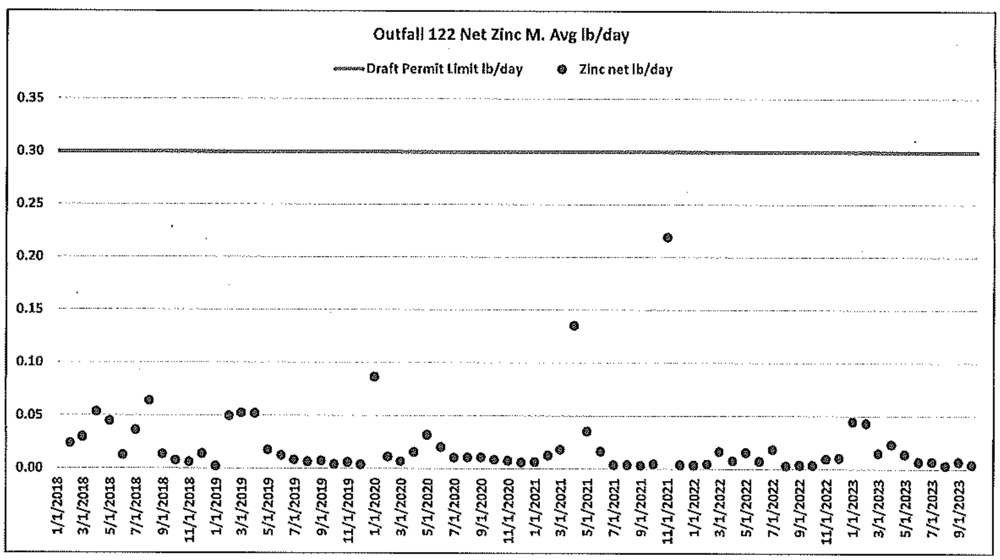

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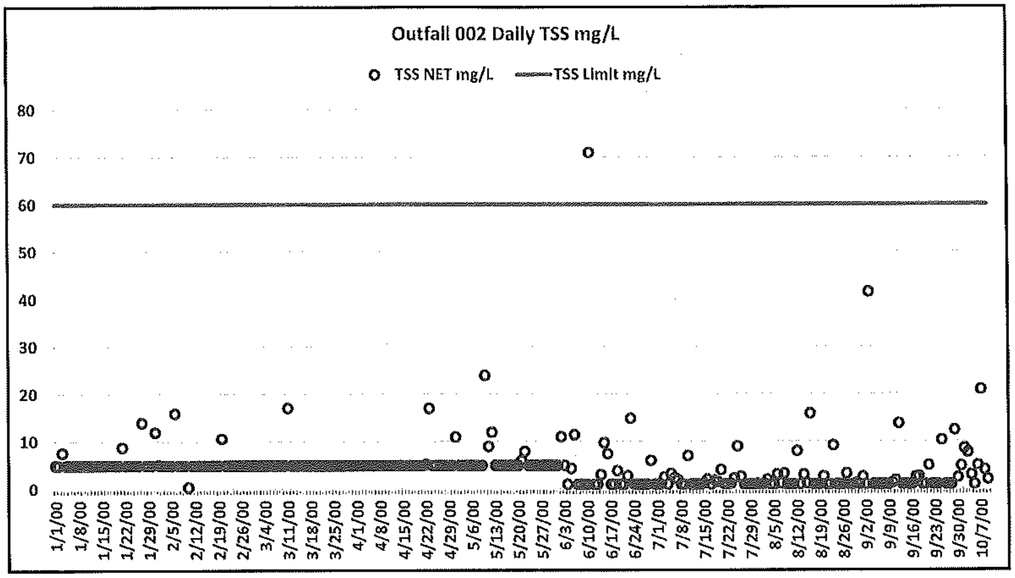

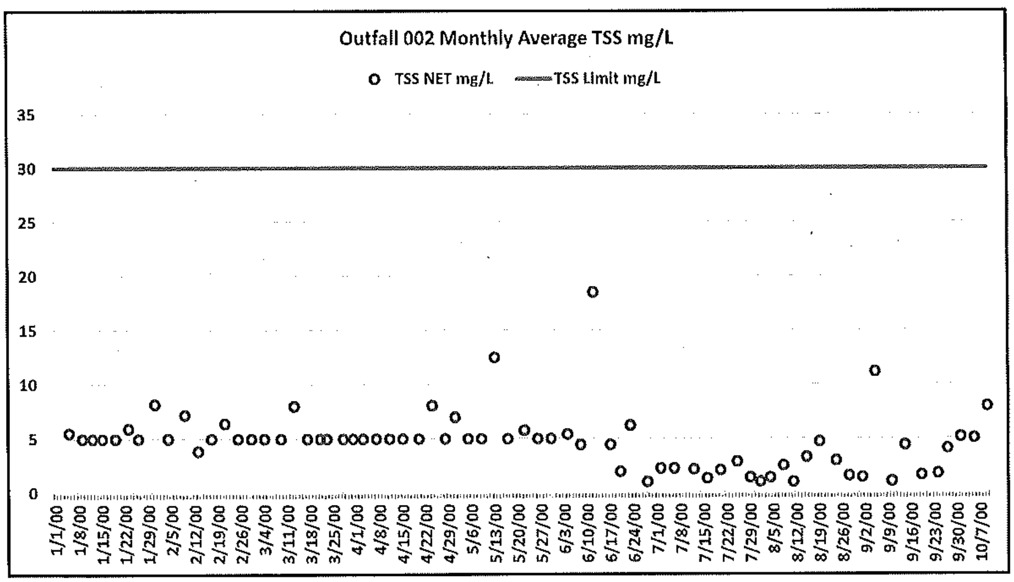

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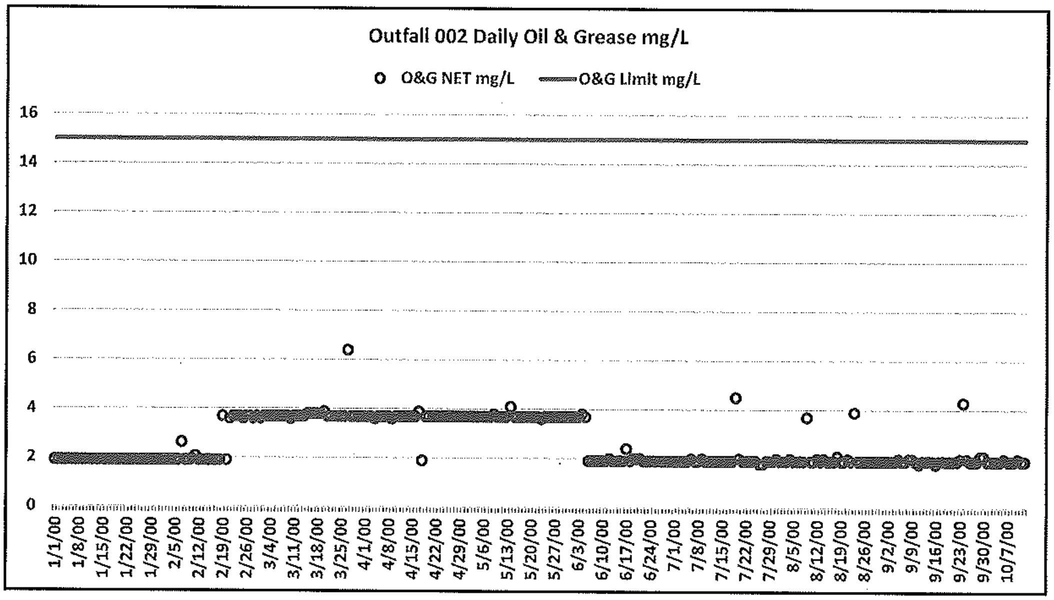

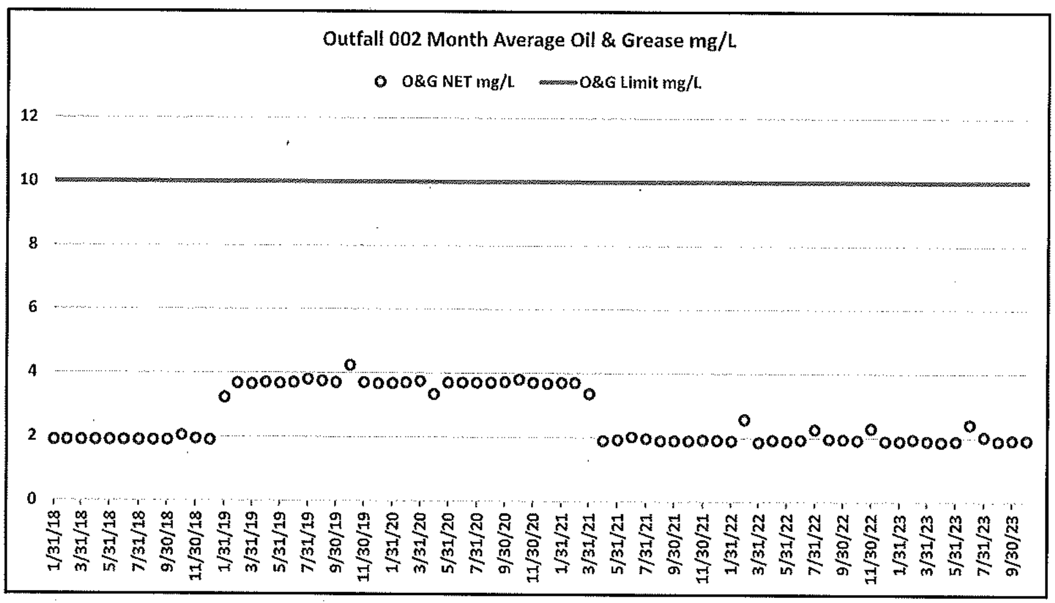

ATTACHMENT C

Suppimental Sampling for TSS Constituents

Summary of TSS Consitutents of Sampling Data (November 1, 10 and 15, 2023)

	TSS Consituent Average (mg/L) (Total metal) - dsissolved metal using TSS filter)			
	Al	Fe	Mn	Silica
Susquehanna River East End Pump Station	0.21	0.31	0.04	0.03
Plant Water Supply Basin Upstream of Outfall 102	< 0.11	0.15	0.01	-0.43
Outfall 102	< 0.11	0.48	0.14	0.23

NC = not calculated

November 2023 TSS constituent sampling data

															TSS Consituent (mg/L)			
Date		T. Pb ug/L	T. Zn ug/L	O&G mg/L	TSS mg/L	T. Al mg/L	T. Fe mg/L	T. Mn mg/L	Silica mg/L	D. Silica mg/L (0.45 micron)	D. Silica TSS filter mg/L	D. Al TSS filter mg/L	D. Fe TSS filter mg/L	D. Mn TSS filter mg/L	Al	Fe	Mn	Silica
11/1/2023	002	1.1	5.7	<3.7	7	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result
11/1/2023	112	<1	13	<3.9	<5	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result
11/1/2023	122	1.1	9.2	<3.7	<5	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result
11/1/2023	102	4.4	18	<3.7	7	< 0.11	0.82	0.19	3.5	3.7	3.6	< 0.11	0.33	0.0083	NC	0.49	0.1817	-0.1
11/1/2023	susquehanna River Upstream of Plant	<1	4	<4.3	6	1.3	1.5	0.16	28.2	3.5	3.6	< 0.11	0.11	< 0.006	1.19	1.39	0.154	24.6
11/1/2023	Plant Water Supply Basin	<1	3.8	<4.0	<5	< 0.11	0.26	0.034	3.3	3.3	3.4	< 0.11	0.089	< 0.006	NC	0.171	0.028	-0.1
11/1/2023	East End Pump House	1.5	10	<4.3	14	0.32	0.96	0.11	4.2	3.6	3.7	< 0.11	0.13	< 0.006	0.21	0.83	0.104	0.5

															TSS Consituent (mg/L)			
Date		T. Pb	T. Zn	O&G	TSS	T. Al	T. Fe	T. Mn	Silica	D. Silica	D. Silica TSS filter	D. Al TSS filter	D. Fe TSS filter	D. Mn TSS filter	Al	Fe	Mn	Silica
11/10/2023	002	2.3	16	<4.1	<5	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result
11/10/2023	112	1.6	20	<4.0	6	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result
11/10/2023	122	1.5	13	<3.7	<5	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result
11/10/2023	102	7	48	4.5	<5	< 0.11	0.79	0.24	3.9	4.2	4.3	< 0.11	0.39	0.13	NC	0.40	0.11	-0.4
11/10/2023	susquehanna River Upstream of Plant	<1	<2.5	<4.2	<5	< 0.11	0.21	0.027	2.4	2.6	2.6	< 0.11	0.15	0.014	NC	0.06	0.013	-0.2
11/10/2023	Plant Water Supply Basin	12	7.4	<4.2	7	0.11	0.43	0.054	2.8	2.9	3.0	< 0.11	0.17	0.019	NC	0.26	0.035	-0.2
11/10/2023	East End Pump House	<1	3.4	<4.0	7	< 0.11	0.24	0.045	2.6	2.9	3.0	< 0.11	0.18	0.029	NC	0.06	0.016	-0.4

															TSS Consituent (mg/L)			
Date		T. Pb	T. Zn	O&G	TSS	T. Al	T. Fe	T. Mn	Silica	D. Silica	D. Silica TSS filter	D. Al TSS filter	D. Fe TSS filter	D. Mn TSS filter	Al	Fe	Mn	Silica
11/15/2023	002	<1	6.9	<3.9	<5	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result
11/15/2023	112	<1	13	<3.7	<5	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result
11/15/2023	122	1.4	19	<4.5	<5	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result	no result
11/15/2023	102	3	23	3.9	<5	< 0.11	0.70	0.15	2.8	1.6	1.6	< 0.11	0.16	0.014	NC	0.54	0.14	1.2
11/15/2023	susquehanna River Upstream of Plant	<1	4	<4.2	<5	< 0.11	0.17	0.015	1.3	1.3	1.3	< 0.11	0.14	0.012	NC	0.03	0.003	0.0
11/15/2023	Plant Water Supply Basin	4.7	5.3	<4.1	<5	< 0.11	0.34	0.044	1.7	2.7	2.7	< 0.11	0.31	0.063	NC	0.03	-0.02	-1.0
11/15/2023	East End Pump House	<1	2.6	<3.9	<5	< 0.11	0.19	0.036	1.6	1.6	1.6	< 0.11	0.16	0.028	NC	0.03	0.01	0.0

C. Missing Portion of Toxic Management Spreadsheet Results

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	PWS Not Applicable
Total Antimony	42.9	µg/L	Discharge Conc ≤ 10% WQBEL
Total Arsenic	76.6	µg/L	Discharge Conc ≤ 10% WQBEL
Total Barium	18,380	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	10,181	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	2.28	µg/L	Discharge Conc ≤ 10% WQBEL
Total Chromium (III)	732	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	20.5	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cobalt	119	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	2,298	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	122,777	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	28.6	µg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	7,658	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.38	µg/L	Discharge Conc ≤ 10% WQBEL
Total Nickel	445	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	38.2	µg/L	Discharge Conc < TQL
Total Silver	5.55	µg/L	Discharge Conc < TQL
Total Thallium	1.84	µg/L	Discharge Conc < TQL
Total Zinc	163	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	3.77	µg/L	Discharge Conc < TQL
Acrylonitrile	1.53	µg/L	Discharge Conc < TQL
Benzene	14.8	µg/L	Discharge Conc < TQL
Bromoform	179	µg/L	Discharge Conc < TQL
Carbon Tetrachloride	10.2	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorobenzene	766	µg/L	Discharge Conc ≤ 25% WQBEL
Chlorodibromomethane	20.4	µg/L	Discharge Conc ≤ 25% WQBEL

Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	22,625	µg/L	Discharge Conc < TQL
Chloroform	43.7	µg/L	Discharge Conc ≤ 25% WQBEL
Dichlorobromomethane	24.2	µg/L	Discharge Conc ≤ 25% WQBEL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	253	µg/L	Discharge Conc ≤ 25% WQBEL
1,1-Dichloroethylene	253	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-Dichloropropane	23.0	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	6.89	µg/L	Discharge Conc ≤ 25% WQBEL
1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	521	µg/L	Discharge Conc < TQL
Methyl Bromide	691	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	35,195	µg/L	Discharge Conc ≤ 25% WQBEL
Methylene Chloride	510	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2,2-Tetrachloroethane	5.1	µg/L	Discharge Conc < TQL
Tetrachloroethylene	255	µg/L	Discharge Conc < TQL
Toluene	437	µg/L	Discharge Conc < TQL
1,2-trans-Dichloroethylene	766	µg/L	Discharge Conc < TQL
1,1,1-Trichloroethane	3,771	µg/L	Discharge Conc < TQL
1,1,2-Trichloroethane	14.0	µg/L	Discharge Conc < TQL
Trichloroethylene	15.3	µg/L	Discharge Conc < TQL
Vinyl Chloride	0.51	µg/L	Discharge Conc < TQL
2-Chlorophenol	230	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	76.6	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	766	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	15.3	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	76.6	µg/L	Discharge Conc < TQL
2-Nitrophenol	10,056	µg/L	Discharge Conc < TQL
4-Nitrophenol	2,891	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	201	µg/L	Discharge Conc < TQL
Pentachlorophenol	0.77	µg/L	Discharge Conc < TQL
Phenol	30,634	µg/L	Discharge Conc < TQL
2,4,6-Trichlorophenol	38.3	µg/L	Discharge Conc < TQL
Acenaphthene	104	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	2,298	µg/L	Discharge Conc < TQL
Benzidine	0.003	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.026	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.003	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.026	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	0.26	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	0.77	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	1,532	µg/L	Discharge Conc < TQL

Bis(2-Ethylhexyl)Phthalate	8.16	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	339	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	0.77	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	6,127	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	3.06	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.003	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	1,031	µg/L	Discharge Conc ≤ 25% WQBEL
1,3-Dichlorobenzene	53.6	µg/L	Discharge Conc ≤ 25% WQBEL
1,4-Dichlorobenzene	918	µg/L	Discharge Conc ≤ 25% WQBEL
3,3-Dichlorobenzidine	1.28	µg/L	Discharge Conc < TQL
Diethyl Phthalate	4,595	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	3,142	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	138	µg/L	Discharge Conc ≤ 25% WQBEL
2,4-Dinitrotoluene	1.28	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	1.28	µg/L	Discharge Conc < TQL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	0.77	µg/L	Discharge Conc < TQL
Fluoranthene	153	µg/L	Discharge Conc < TQL
Fluorene	383	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.002	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	0.26	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	6.28	µg/L	Discharge Conc < TQL
Hexachloroethane	2.55	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.026	µg/L	Discharge Conc < TQL
Isophorone	260	µg/L	Discharge Conc < TQL
Naphthalene	176	µg/L	Discharge Conc ≤ 25% WQBEL
Nitrobenzene	76.6	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.018	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	0.13	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	84.2	µg/L	Discharge Conc < TQL
Phenanthrene	6.28	µg/L	Discharge Conc < TQL
Pyrene	153	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	0.54	µg/L	Discharge Conc < TQL