pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0084468**
Facility Type	**Industrial**	APS ID	**618145**
Major / Minor	**Minor**	Authorization ID	**1294946**

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

Applicant and Facility Information

Applicant Name	**Dura Bond Pipe LLC**	Facility Name	**Dura Bond Steel Pipe Coating Steelton Plant**
Applicant Address	2716 S Front Street Steelton, PA 17113-3099	Facility Address	2716 S Front Street Steelton, PA 17113-3099
Applicant Contact	John Hopper	Facility Contact	Kenneth Leach
Applicant Phone	(724) 327-0280	Facility Phone	(717) 986-1100
Client ID	212927	Site ID	253373
SIC Code	3479	Municipality	Steelton Borough
SIC Description	Manufacturing - Metal Coating And Allied Services	County	Dauphin
Date Application Received	November 4, 2019	EPA Waived?	Yes
Date Application Accepted	November 19, 2019	If No, Reason	
Purpose of Application	Permit renewal to discharge treated industrial wastewater		

Summary of Review

1.0 Generation Discussion

This factsheet supports the renewal of an existing NPDES permit for a discharge of treated industrial waste from an existing steel pipe manufacturing plant located in Steelton, Dauphin County. Dura-Bond Pipe LLC(Durabond) owns and operates the facility known as Steelton Plant. The facility manufactures steel pipes ranging in sizes from 24" to 42" from plates and then coats them with epoxy. The facility also fabricates other structural and metal products that falls under Standard Industrial Classification Codes 3317, 3441 and 3499. The major industrial processes performed at the facility are as follows:

1. Storage – All raw materials and any new equipment are temporarily stored in the yard. Stormwater drained from this area will be collected in a pit where a belt type oil skimmer (i.e., oil/water separator) is available to remove oil from stormwater. No industrial wastewater, other than stormwater associated with industrial activities, is expected from this area.
2. Cold Forming Process –After preconditioning process, steel plate is pressed and formed into a pipe through a series of presses (i.e., U & O shape presses). Water is used as lubricant during this process to minimize stress on the weld and reduce the incidence of weld cracking. Following inside/outside welding, all pipes are visually inspected at the fluoroscopic inspection station for any pinholes, lack of penetration, porosity and slag. Process wastewater (i.e., direct contact wastewater) is generated from this process.
3. Hydraulic Expansion/Test Process – Durabond utilizes a pipe mill expander to size steel pipes and to form a watertight seal. The pipe is filled with water and pressurized to expand the pipe against the dies. The pipe is then tested for

Approve	Deny	Signatures	Date
X		J. Pascal Kwedza, P.E. / Environmental Engineer	January 18, 2022
X		*Maria D. Bebenek for* Daniel W. Martin, P.E. / Environmental Engineer Manager	January 20, 2022
X		*Maria D. Bebenek* Maria D. Bebenek, P.E. / Program Manager	January 20, 2022

Summary of Review

pressure holding during the specific time. Process wastewater (i.e., direct contact wastewater) is generated from this operation.

4. X-ray Weld Quality Control – Following the hydraulic expansion and testing process, all pipes are first rinsed for weld inspection and then tested once again by a qualified radiographer (x-ray process). Weld inspection rinse water will be collected in the pit and waste generated from x-ray process is treated by precipitation and neutralization process using the pretreatment device, EPAN Chamber. This device is used for silver and iron removal process, pH adjustment, and potential solid removal process.
5. Ultrasonic Inspection – The pipe is visually inspected for any defects and surface imperfections. Generally, no wastewater is expected from this operation.
6. Coating – Following visual/sonic inspection, water is used to rinse the pipe prior to coating. The inside of the pipe is then sprayed with an amine-cured epoxy and heat cured. The pipe is pre-heated and inspected prior to heating to an exact temperature by three computer-controlled gas furnaces. The outside of the pipe is then coated with epoxy and then water-cooled. Contact cooling water is generated from this operation.
7. Other Relevant Industrial Activities are vehicle/equipment washing and dust control.- Trucks and equipment are washed as needed before leaving the site. The previous factsheet indicated that a vehicle washing area was designated and appropriate BMPs were developed and implemented at DEP's request and only the outside of vehicles without chemicals will be rinsed or washed. This rinse water is collected in a pit for settling prior to discharge to Pennsylvania Canal. Due to heavy trucking operation, an excessive amount of dust is generated onsite and the facility is required, per DEP's Air Quality Program (Title V Permit no. 22-05047), to spray water periodically on the roads/unpaved areas for dust control.
8. The previous factsheet indicated that Durabond also generates contact cooling water resulting from power coating process which involves fusion of epoxy power onto the outside surface of heated pipe. Water is used to cool the coated pipe and the wastewater generated used to be continuously discharged from Outfall 101 to Susquehanna River. However, the outfall was eliminated, and contact cooling water is now sent to a local municipal wastewater treatment plant (Steelton Borough WWTP).

9. Sanitary wastewater generated onsite is discharged to the Steelton Borough WWTP.

Some of the industrial activities conducted at the site are covered under ELG and some of them are not. The existing NPDES permit was issued on March 26, 2015 with an effective date of May 1, 2015 and expiration date of April 30, 2020. The applicant submitted a timely NPDES renewal application to the Department and is currently operating under the terms and conditions in the existing permit under administrative extension provisions pending Department action on the renewal application. A topographical map showing discharge location is presented in attachment A.

2.0 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.

2.1 Changes to Existing Permit

TSS monitoring frequency has been increased for outfall 007
Fecal Coliform and Total Copper Monitoring has been added to outfall 007.
Nitrate-Nitrite as N monitoring replaced TKN monitoring for outfalls 007 and 008.
Parameters monitored in storm water for outfall 201 has been updated with new requirements.

Summary of Review

2.2 Existing Permit Limitations and monitoring requirements

2.2.1 Outfall 007

Discharge Parameter	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
	Mass Units (lbs/day)		Concentrations (mg/l)				Minimum	Required
	Avg Monthly	Max Daily	Minimum	Average Monthly	Maximum Daily	Inst. Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/week	Grab
TKN	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Chromium	Report	Report	XXX	0.50	1.0	1.25	1/week	24-Hr Composite
Total Copper	Report	Report	XXX	0.40	0.80	1	1/week	24-Hr Composite
Total Iron	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Lead	Report	Report	XXX	0.15	0.30	0.38	1/week	24-Hr Composite
Total Manganese	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Nickel	Report	Report	XXX	0.75	1.50	1.88	1/week	24-Hr Composite
Total Zinc	Report	Report	XXX	0.50	1.0	1.25	1/week	24-Hr Composite

Summary of Review

2.2.2 Outfall 008

Discharge Parameter	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
	Mass Units (lbs/day)		Concentrations (mg/l)				Minimum	Required
	Avg Monthly	Max Daily	Minimum	Average Monthly	Maximum Daily	Inst. Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
TSS	1.36	2.71	XXX	Report	Report	XXX	1/week	24-Hr Composite
Oil and Grease	0.45	1.13	XXX	Report	Report	XXX	1/week	Grab
TKN	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	0.007	0.020	XXX	Report	Report	XXX	1/week	24-Hr Composite
Total Zinc	0.005	0.014	XXX	Report	Report	XXX	1/week	24-Hr Composite

2.2.3 Outfall 201

Discharge Parameter	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
	Mass Units (lbs/day)		Concentrations (mg/l)				Minimum	Required
	Avg Monthly	Max Daily	Minimum	Average Monthly	Maximum Daily	Inst. Maximum	Measurement Frequency	Sample Type
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
COD	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
TKN	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Chromium	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

2.3 Discharge, Receiving Waters and Water Supply Information

Outfall No.	**007**	Design Flow (MGD)	0.0047
Latitude	40° 12’ 38.00”	Longitude	76° 48’ 10.00”
Quad Name	Steelton	Quad Code	1731
Wastewater Description:	Industrial Wastewater & Stormwater		

Outfall No.	**008**	Design Flow (MGD)	0.004
Latitude	40° 12’ 35.00”	Longitude	76° 48’ 9.00”
Quad Name	Steelton	Quad Code	1731
Wastewater Description:	Industrial Wastewater & Stormwater		

Outfall No.	**201**	Design Flow (MGD)	N/A
Latitude	40° 12’ 34.00”	Longitude	76° 48’ 01.00”
Quad Name	Steelton	Quad Code	1731
Wastewater Description:	Stormwater		

Receiving Waters	(1) Pennsylvania Canal (Susquehanna River) (2) UNT of Laurel Run	Stream Codes	(1) 06685 (2) 10097
NHD Com ID	133783733	RMI	(1) 65 (2) 0.10
Drainage Area	*See comments below	Yield (cfs/mi^2)	*See comments below
Q_{7-10} Flow (cfs)	*See comments below	Q_{7-10} Basis	*See comments below
Elevation (ft)	*See comments below	Slope (ft/ft)	*See comments below
Watershed No.	7-C	Chapter 93 Class.	N/A
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Not Assessed		
Cause(s) of Impairment	N/A		
Source(s) of Impairment	N/A		
TMDL Status	N/A	Name	N/A

Background/Ambient Data		Data Source
pH (SU)	7.91	Renewal Application (Intake)
Hardness (mg/L)	112	Renewal Application (Intake)
Ammonia (mg/L)	0.129	Renewal Application (Intake)

Nearest Downstream Public Water Supply	Columbia Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	N/A
PWS RMI	42.5	Distance from Outfall (mi)	22

2.3.1 Receiving Waterbodies

Unnamed Tributary of Laurel Run is intermittent and receives stormwater discharges from Outfall 201. Pennsylvania Canal is used to supply water to Cleveland Cliffs (formerly Arcelor Mittal), a large steel and mining company located west of Durabond. Cleveland Cliffs (NPDES Permit No. PA0008303) operates a pump station and periodically withdraws water from the Susquehanna River and pumps to Pennsylvania Canal to supply water for its industrial activities. Q_{7-10} flows and drainage areas for Pennsylvania Canal and Unnamed Tributary of Laurel Run were not determined since they are not applicable to the two receiving waterbodies. No effort is made to calculate water quality-based effluent limitations (WQBELs for the discharge since is it difficult to determine where exactly surface water quality criteria would apply and where designated uses must be achieved. Accordingly, Q_{7-10} and drainage areas of receiving waterbodies have not been considered during this permit review.

2.3.2 Public water supply intake

The nearest public water supply intake is Columbia Water Company, located on Susquehanna River approximately 22 miles downstream of the discharge point. Considering the dilution and distance from this intake, the discharge from Durabond is not expected to affect the water supply.

2.4.0 Wastewater/Treatment Summary

Wastewater/Treatment Summary				
Type of Wastewater	**Volume of Wastewater**	**Outfall**	**Associated Industrial Activities**	**Type of Treatment**
Process Wastewater	1,880 GPD (4 gal/pipe)	008	Cold Forming Process	Settling, Oil/Water Separator
Process Wastewater	4,224 GPD (10 gal/pipe)	007	Hydraulic Expansion Process	Prab Drum type Filtration unit*, Settling, Oil/Water Separator
Process Wastewater	250 GPD	007	X-ray Weld Quality Control	Settling, Oil/Water Separator, Precipitation/Neutralization process
Process Wastewater	200 GPD	007	Coating Process (rinse water)	Recycling, Settling, Oil/Water Separator
Vehicle Washing Wastewater	> 20 GPD	008	Outside Truck Washing/Rinsing	Settling, Oil/Water Separator
Stormwater	N/A	007, 008 & 201	Storage yard, roofs & unpaved/paved areas	Settling, Oil/Water Separator

*The Prab Drum type filtration unit was added in August 2015 as pretreatment (filtering of metals) for the expander. This unit is piped to either discharge back into the expander sump or directly to the sump which discharges to the collection system for 007

2.4.1 Chemical Additive

Durabond historically has never used nor will use chemical additives for any of its industrial activities; therefore, no chemical additive analysis is necessary. However, the draft permit will still include the permit condition, requiring notification to DEP if Durabond decides to use chemical additive in the future.

3.0 Compliance History

3.1 DMR Data for Outfall 007 (from December 1, 2020 to November 30, 2021)

Parameter	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20
Flow (MGD) Average Monthly	0.100	0.0999	0.095	0.0975	0.0904	0.087	0.0951	0.0951	0.067	0.095		
Flow (MGD) Daily Maximum	0.100	0.0999	0.100	0.0999	0.0951	0.095	0.0951	0.0951	0.0951	0.095		
pH (S.U.) Minimum	7.8	7.8	8.2	7.1	7.4	7.8	6.6	7.3	7.3	7.4		
pH (S.U.) Instant. Maximum	8.0	8.4	8.8	8.1	8.0	7.9	7.5	7.3	7.5	7.4		
TSS (mg/L) Daily Maximum						1000.0						65.0
Oil and Grease (mg/L) Average Monthly	< 4.1	< 4.8	< 6.5	5.7	< 5.9	< 6.5	< 4.5	< 3.8	< 3.7	< 3.8		
Oil and Grease (mg/L) Instant. Maximum	< 4.3	< 5.5	9.4	9.3	10.3	11.4	6.7	< 3.8	3.7	< 3.8		
TKN (mg/L) Daily Maximum						2.3						< 1.0
Total Aluminum (lbs/day) Ave. Monthly	0.2039	0.2811	0.4172	< 0.2967	0.1628	0.1259	0.4532	0.1507	0.1194	0.1983		
Total Aluminum (lbs/day)Daily Max.	0.6163	0.5163	0.7059	0.8943	0.2562	0.3357	0.6440	0.1507	0.1221	0.2459		
Total Aluminum (mg/L)Ave. Monthly	0.2448	0.3375	0.5260	< 0.3650	0.2160	0.1726	0.1900	0.1900	0.2150	0.2500		
Total Aluminum (mg/L) Daily Max.	0.7400	0.6200	0.8900	1.100	0.3400	0.46	0.2700	0.1900	0.2200	0.3100		
Total Chromium (lbs/day) Ave. Monthly	< 0.0058	< 0.0087	< 0.0057	< 0.0020	< 0.0019	< 0.0022	< 0.0060	< 0.0020	< 0.0014	< 0.0023		
Total Chromium (lbs/day) Daily Max	0.0133	0.0266	0.0111	< 0.0020	< 0.0019	0.0035	< 0.0060	< 0.0020	< 0.0014	0.0025		
Total Chromium (mg/L) Ave. Monthly	< 0.0070	< 0.0104	< 0.0072	< 0.0025	< 0.0025	< 0.0030	< 0.0025	< 0.0025	< 0.0025	< 0.0029		
Total Chromium (mg/L) Daily Max	0.0160	0.0320	0.0140	< 0.0025	< 0.0025	0.0048	< 0.0025	< 0.0025	< 0.0025	0.0032		
Total Copper (lbs/day) Average Monthly	< 0.0043	< 0.0102	< 0.0105	< 0.0061	< 0.0038	< 0.0056	< 0.0241	0.0048	0.0048	< 0.0067		
Total Copper (lbs/day) Daily Maximum	0.0049	0.0283	0.0293	0.0081	0.0039	0.0109	0.0382	0.0048	0.0056	0.0095		
Total Copper (mg/L) Average Monthly	< 0.0052	< 0.0123	< 0.0133	< 0.0075	< 0.0051	< 0.0077	< 0.0101	0.0048	0.0087	< 0.0085		
Total Copper (mg/L) Daily Maximum	0.0059	0.0340	0.0370	0.0100	0.0052	0.0150	0.0160	0.0048	0.0100	0.0120		

Total Iron (lbs/day) Average Monthly	0.4930	0.8661	0.9232	0.5975	0.4483	0.3240	1.1687	0.4600	0.3137	0.6861		
Total Iron (lbs/day) Daily Maximum	1.2492	1.3325	1.4276	1.7072	0.6028	0.7297	1.5503	0.4600	0.3220	0.8724		
Total Iron (mg/L) Average Monthly	0.5920	1.04	1.1640	0.7350	0.5950	0.4440	0.4900	0.5800	0.5650	0.8650		
Total Iron (mg/L) Daily Maximum	1.5	1.6	1.8	2.100	0.8000	1.0	0.6500	0.5800	0.5800	1.100		
Total Lead (lbs/day) Average Monthly	< 0.0025	< 0.0025	< 0.0030	< 0.0029	< 0.0023	< 0.0029	< 0.0072	0.0026	< 0.0017	0.0028		
Total Lead (lbs/day) Daily Maximum	< 0.0025	< 0.0025	0.0052	0.0042	< 0.0023	0.0058	< 0.0072	0.0026	< 0.0017	0.0028		
Total Lead (mg/L) Average Monthly	< 0.0030	< 0.0030	< 0.0038	< 0.0036	< 0.0030	< 0.0040	< 0.0030	0.0033	< 0.0030	0.0035		
Total Lead (mg/L) Daily Maximum	< 0.0030	< 0.0030	0.0065	0.0052	< 0.0030	0.0080	< 0.0030	0.0033	< 0.0030	0.0035		
Total Manganese (lbs/day) Ave. Monthly	0.0451	0.1049	0.1206	0.1427	0.1484	0.0895	0.2403	0.1190	0.0944	0.1983		
Total Manganese (lbs/day) Daily Max.	0.0691	0.1416	0.1586	0.2439	0.3542	0.1240	0.3101	0.1190	0.0944	0.2538		
Total Manganese (mg/L) Ave. Monthly	0.0542	0.1260	0.1520	0.1755	0.1970	0.1226	0.1008	0.1500	0.1700	0.2500		
Total Manganese (mg/L) Daily Max	0.0830	0.1700	0.2000	0.3000	0.4700	0.1700	0.1300	0.1500	0.1700	0.3200		
Total Nickel (lbs/day) Average Monthly	< 0.0083	< 0.0102	< 0.0086	< 0.0081	< 0.0075	< 0.0073	< 0.0239	< 0.0079	0.0056	< 0.0079		
Total Nickel (lbs/day) Daily Maximum	< 0.0083	0.0158	0.0111	< 0.0081	< 0.0075	< 0.0073	< 0.0239	< 0.0079	< 0.0056	< 0.0079		
Total Nickel (mg/L) Average Monthly	< 0.0100	< 0.0123	< 0.0108	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100		
Total Nickel (mg/L) Daily Maximum	< 0.0100	0.0190	0.0140	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	0.0100	< 0.0100		
Total Zinc (lbs/day) Average Monthly	< 0.0083	< 0.0121	0.0249	< 0.0126	0.0092	< 0.0126	0.0394	0.0167	0.0175	0.0262		
Total Zinc (lbs/day) Daily Maximum	< 0.0083	0.0150	0.0619	0.0203	0.0113	0.0306	0.0525	0.0167	0.0183	0.0381		
Total Zinc (mg/L) Average Monthly	< 0.0100	< 0.0145	0.0314	< 0.0155	0.0123	< 0.0172	0.0165	0.0210	0.0315	0.0330		
Total Zinc (mg/L) Daily Maximum	< 0.0100	0.0180	0.0780	0.0250	0.0150	0.0420	0.0220	0.0210	0.0330	0.0480		

3.2 DMR Data for Outfall 008 (from December 1, 2020 to November 30, 2021)

Parameter	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20
Flow (MGD) Average Monthly	0.0042	0.0042	0.0040	0.0041	0.0038	0.00368	0.0040	0.0040	0.0028	0.0040		
Flow (MGD) Daily Maximum	0.0042	0.0042	0.0040	0.0042	0.0040	0.0040	0.0040	0.0040	0.0040	0.0040		
pH (S.U.) Minimum	7.5	8.1	7.8	7.3	7.3	7.4	7.1	7.78	7.5	7.5		
pH (S.U.) Instant. Maximum	8.04	8.3	8.1	7.9	8.1	8.9	7.3	7.78	7.61	7.71		
TSS (lbs/day) Average Monthly	0.5114	0.9107	0.5588	< 1.7781	0.9745	0.8471	0.6422	0.40	0.40	0.28		
TSS (lbs/day) Daily Maximum	1.2610	1.7864	1.109	4.0691	1.9332	2.76	1.0342	0.40	0.61	0.37		
TSS (mg/L) Average Monthly	14.6	26.0	16.75	< 52	30.75	27.6	19.25	12.0	17.0	8.5		
TSS (mg/L) Daily Maximum	36.0	51.0	33.0	119	61	90.0	31.0	12.0	26.0	11.00		
Oil and Grease (lbs/day) Ave. Monthly	< 0.1436	< 0.1559	< 0.1501	< 0.2607	< 0.1188	< 0.1651	< 0.1243	< 0.12	< 0.09	< 0.13		
Oil and Grease (lbs/day) Daily Max	< 0.1681	< 0.1716	< 0.1535	0.4958	< 0.1236	0.3652	< 0.1268	< 0.12	< 0.09	0.13		
Oil and Grease (mg/L) Average Monthly	< 4.1	< 4.45	< 4.5	< 7.625	< 3.75	< 5.38	< 3.725	3.7	3.7	< 3.75		
Oil and Grease (mg/L) Daily Maximum	< 4.8	< 4.9	< 4.6	14.5	< 3.9	11.9	< 3.8	< 3.7	< 3.7	< 3.8		
TKN (mg/L) Daily Maximum						1.7						< 1.0
Total Iron (mg/L) Daily Maximum						14.5						7.5
Total Lead (lbs/day) Average Monthly	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001		
Total Lead (lbs/day) Daily Maximum	< 0.0001	0.0001	0.0001	0.0001	0.0002	0.0004	< 0.0001	< 0.0001	< 0.0001	0.0001		
Total Lead (mg/L) Average Monthly	< 0.003	< 0.00307	< 0.00305	< 0.0035	< 0.0039	< 0.0052	< 0.0030	< 0.0030	< 0.0030	< 0.0035		
Total Lead (mg/L) Daily Maximum	< 0.003	0.0033	0.0032	0.0042	0.0055	0.014	< 0.0030	< 0.0030	< 0.0030	0.0039		
Total Zinc (lbs/day) Average Monthly	< 0.0004	< 0.0006	0.0010	0.0007	< 0.0007	< 0.0004	< 0.0005	0.0006	0.0009	0.0008		
Total Zinc (lbs/day) Daily Maximum	< 0.0004	0.0012	0.0019	0.0009	0.0010	0.0005	0.0006	0.0006	0.0011	0.0009		
Total Zinc (mg/L) Average Monthly	< 0.01	< 0.01725	0.029	0.021	< 0.022	< 0.01148	< 0.01375	0.0190	0.0370	0.0230		

Total Zinc (mg/L) Daily Maximum	< 0.01	0.034	0.058	0.026	0.033	0.015	0.019	0.0190	0.0460	0.0260		

3.3 DMR Data for Outfall 201 (from December 1, 2020 to November 30, 2021)

Parameter	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20
pH (S.U.) Daily Maximum						8.49						8.0
COD (mg/L) Daily Maximum						55.0						< 15.0
TSS (mg/L) Daily Maximum						637						19.0
Oil and Grease (mg/L) Daily Maximum						< 3.7						< 3.7
TKN (mg/L) Daily Maximum						1.6						< 1.0
Total Chromium (mg/L) Daily Maximum						0.071						0.0038
Total Copper (mg/L) Daily Maximum						0.061						0.0050
Total Iron (mg/L) Daily Maximum						15.0						0.94
Total Lead (mg/L) Daily Maximum						0.052						0.0045

3.4 Effluent Violations for Outfall 008, from: April 1, 2020 To: February 28, 2021

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	08/31/21	Avg Mo	< 1.7781	lbs/day	1.36	lbs/day
TSS	06/30/21	Daily Max	2.76	lbs/day	2.71	lbs/day
TSS	08/31/21	Daily Max	4.0691	lbs/day	2.71	lbs/day

3.5 Summary of DMRs:

Discharge Monitoring Reports (DMRs) review for the facility for the last 12 months of operation presented on tables 3.1 to 3.3 above indicate permit limits have been met most of the time. Three TSS effluent violations occurred during the past 12 months. The violations appear to be operations and maintenance related.

3.6 Inspection Report Summary

The facility was inspected several times during the past permit cycle. No violation found on plant inspections, but a notice of violation was sent on August 1, 2019 for DMR effluent violations in 2018 and 2019. Timely addressing of leaks and spills in addition to calibration of pH prior to use, storm water sample collection during active storm, storm water pH analysis done onsite, and good housekeeping were some of the recommendations made during plant inspections.

4.0 Development of Effluent Limitations and Monitoring Requirements

Outfall No.	007	**Design Flow (MGD)**	0.0047
Latitude	40° 12’ 38.00”	**Longitude**	76° 48’ 10.00”
Wastewater Description:	Industrial Wastewater & Stormwater		

Outfall No.	008	**Design Flow (MGD)**	0.0040
Latitude	40° 12’ 35.00”	**Longitude**	76° 48’ 9.00”
Wastewater Description:	Industrial Wastewater & Stormwater		

Outfall No.	201	**Design Flow (MGD)**	N/A
Latitude	40° 12’ 34.00”	**Longitude**	76° 48’ 01.00”
Wastewater Description:	Stormwater		

4.1 Basis for Effluent Limitations

In general, the Clean Water Act (AWA) requires that the effluent limits for a particular pollutant be the more stringent of either technology-based limits or water quality-based limits. Technology-based limits are set according to the level of treatment that is achievable using available technology. A water quality-based effluent limit (WQBEL) is designed to ensure that the water quality standards applicable to a waterbody are being met and may be more stringent than technology-based effluent limits.

4.2.0 Technology-based limitations

4.2.1 Outfall 008

In accordance to 40 CFR §125.3(c), technology-based treatment requirements in permits should be based on either EPA-promulgated effluent limitation guidelines (ELGs) and standards, or on case-by-case basis where ELGs are not applicable. Discharges from Durabond’s outfalls contain wastewater regulated under the ELG found in 40 CFR Part 420 Subpart J, *Cold Forming Subcategory*. The Best Practicable Control Technology (BPT) standards found in 40 CFR § 420.102 (b)(1), for *Cold worked pipe and Tube using water,* require the following effluent limitations.

	BPT effluent limitations (outfall 008)	
	Maximum for any 1 day	**Average of daily values for 30 consecutive days**
Pollutant or pollutant property	Kg/kkg (pounds per 1,000 lb) of product	
TSS	0.00125	0.000626
O&G	0.000522	0.000209
Chromium[1]	0.0000209	0.0000084
Lead	0.0000094	0.0000031
Nickel[1]	0.0000188	0.0000063
Zinc	0.0000063	0.0000021
pH	6.0 to 9.0	6.0 to 9.0

[1]The limitations for chromium and nickel shall be applicable in lieu of those for lead and zinc when cold forming wastewaters are treated with descaling or combination acid pickling wastewaters

Typically, ELGs are based on production therefore, effluent limitations for Durabond will be based on their production. Durabond’s production rate varies throughout the year. The renewal application listed Durabond’s most recent 5 years pipe production data during the period from 2014 through 2018 and presented on the table below:

Pipe Production (outfall 008)					
	Production Year				
Parameter	2014	2015	2016	2017	2018
Total Annual Production (tons)	77,298.6	146,364.1	253996.9	256,352.2	77,744.6
Max Monthly Production(tons/month)	13,212.9	26,797.1	28.547.6	30,316.2	9,589.8
Month of Max Production	December	December	December	December	March
Daily Avg (tons/day)	384.6	510.0	881.9	953.0	313.5
Avg Hrs/Day(hrs/day)	9.0	8.7	15.8	17.8	9.6
Avg Days/Mo	16.8	23.9	24	22.4	20.7

The highest production month within the past 5 years production is typically used to develop a rate to calculate TBELs

Highest Production Month (tons/mo) ÷ Average Production Days per Month (days/mo)

= 30,316.2 tons/mo ÷ 22.4 days/mo ≈ **1,353.4 tons/day**

Using this rate, technology-based mass limitations for Total Suspended Solids are calculated as follows:

Average Monthly = (0.000626 lbs TSS /1,000 lbs product) x (2,000 lbs product / 1 ton product) x (1,353.4 tons product /day) = 1.69 lbs TSS/day

Maximum Daily = (0.00125 lbs TSS /1,000 lbs product) x (2,000 lbs product / 1 ton product) x (1,353.4 tons product /day) = 3.38 lbs TSS/day

The table below summarizes limits for all other pollutants that were calculated in similar manner.

	Mass Limitations (lbs/day)		**Concentration Limitations (mg/L)**	
Pollutant	**Avg. Mon**	**Daily Max**	**Avg. Mon**	**Daily Max**
TSS	1.69	3.38	Monitor	Monitor
O&G	0.57	1.41	Monitor	Monitor
Lead	0.008	0.025	Monitor	Monitor
Zinc	0.006	0.017	Monitor	Monitor

The calculated technology limits are applied to outfall 008 in the permit. The calculated technology limits are less stringent than the existing limits, however, since the limits were based on current production data, backsliding is justified in accordance with 40 CFR 122.44(l)(2)i(B)(1). In addition to the technology limits calculated, the existing average monthly and daily maximum monitoring requirement in the permit based on Best Professional Judgment (BPJ) will remain in the permit.

4.2.2 Outfall 007

Processes that discharge wastewater to outfall 007 consists of pressurized water used to expand the pipe into near perfect circular form, weld inspection rinse water, pipe coating rinse water and treated waste from x-ray development lab. Wastewater generated from the expander process combines with the other sources of wastewater and storm water prior to discharge to the oil skimmer pit. (which is considered Outfall 007 collection pit). The x-ray lab waste is precipitated and neutralized by EPAN Chamber prior to comingling with the other sources of wastewater that discharge to the oil skimmer pit. Overall, Outfall 007 receives approximately 4,700 GPD of wastewater from these processes once the facility is in production mode.

Based on the description of these industrial activities, wastewater generated from these processes should be subject to the ELG associated with cold forming operations but the 2000 revision to the ELG did not address these activities unless the process involves the six operations listed in 40 CFR § 433.10(a). During the previous permit renewal, DEP had determined that best professional judgment (BPJ) TBELs are appropriate for Outfall 007 per 40 CFR § 125.3(c)(2).

4.2.3 BTA for Cold forming operations using water

EPA-developed technical documents generally recommended the following control and treatment technologies as the best technology available (BTA):

- 1982 Document : Sedimentation-Primary Scale Pit; Oil Skimmer; Recycle
- 2000 Document : Flow Equalization; Oil Skimming; Chemical Precipitation; Hexavalent Chromium Reduction; Gravity sedimentation/clarification; Sludge dewatering

DEP had determined during previous permit renewal that, the existing treatment process at the site is BTA for the site. DEP discussed in the previous permit the following factors listed in 40 CFR § 125.3(d)(3) in the BTA decision-making process:

i. Age of Equipment and Facilities Involved

Durabond is not a new facility nor is equipped with modern technology. The Steelton plant was previously operated and owned by Bethlehem Steel Company (at the beginning of 1900s). It is unclear when existing treatment units were originally installed at the facility; however, all equipment as well as treatment units used in these processes were also previously operated by Bethlehem Steel Company. The pipe making operations including this pipe expansion process were "resumed" when Durabond purchased the Steelton plant in 2003.

ii. The Process Employed

Although the hydraulic expansion process is unique, wastewater characteristics should not be much different than wastewater generating from other cold worked pipe and tube operations since no special chemical additive is used in such process.

iii. Engineering Aspects of the Application of Various Types of Control Techniques

When EPA prepared technical documents to develop ELGs, several sites were examined on the types of wastewater and treatment technology associated with its wastewater. Many of these sites have already used sedimentation pits and oil skimmers as their main treatment technologies since most of wastewater pollutants are treatable with meeting appropriate effluent levels. Frequently, chemical precipitation/pH adjustment[i] is considered to reduce effluent metal levels when the physical treatment technology is not adequate enough (i.e., ferrous iron (Fe^{+2}) ↔ ferric iron (Fe^{+3})).

iv. Process Changes

It is not necessary for Durabond to consider any major process changes in order to comply with the requirement. A sedimentation pit is already provided for discharges resulting from pipe expansion process. The physical treatment systems such as sedimentation scale pit and oil skimmer are already placed at the site with two (2) underflow weirs. No chemical or biological treatment is currently installed at the facility. The proposed BAT treatment technology should not cause any adverse impact on the current process.

v. The Cost of Achieving Such Effluent Reduction

Most wastewater pollutants, especially metals, can be treated by treatment units currently installed at the site; therefore, it may not be necessary to consider the cost for new treatment/control technology. Operation and Maintenance cost may increase slightly due to the increased number of pollutants required to be monitored and its associated monitoring frequency. For metal reduction, existing treatment units may or may not reduce effluent levels. Without a robust monitoring data set, it is unclear to determine if the facility continuously discharges high levels of metals. The cost of achieving metal effluent reduction may increase as a result of introducing chemical(s) for pH adjustment/precipitation process.

vi. Non-Water Quality Environmental Impact (Including Energy Requirements)

The proposed BAT requirements should not require energy consumption and any non-water quality environmental impact associated with the proposed BAT requirements should be minimal. Any solids built up on the bottom of the **se**dimentation/oil skimmer pits are currently cleaned as needed. For any minimal adverse energy and non-water quality

environmental impacts, pollutant reduction benefits as a result of effluent limitations and permit requirements recommended through this BAT analysis should outweigh those impacts.

4.2.4 Best Professional Judgement (BPJ) Technology Based-Limits (TBELs)

DEP developed BPJ TBELs in the existing permit for some pollutants of concern presented on the table below based on sampling data and the treatment technology at the site. The limits are TBELs recommended by DEP as the BAT AML based on literature. Most of the existing limits are adequate and will be carried over in the renewed permit. Those parameters not adequate based on current sampling data will be revised.

Pollutant	Mass Loadings, lbs/day	Concentrations, mg/L	SBC
pH	N/A	6.0 – 9.0	Min – Max
Oil and Grease	N/A	15	Average Monthly
	N/A	30	Daily Maximum
Total Chromium	Monitor	0.50	Average Monthly
	Monitor	1.0	Daily Maximum
Total Copper	Monitor	0.40	Average Monthly
	Monitor	0.80	Daily Maximum
Total Lead	Monitor	0.15	Average Monthly
	Monitor	0.30	Daily Maximum
Total Nickel	Monitor	0.75	Average Monthly
	Monitor	1.50	Daily Maximum
Total Zinc	Monitor	0.50	Average Monthly
	Monitor	1.0	Daily Maximum
Total Aluminum, Total Iron, Total Manganese	Monitor	Monitor	Average Monthly
	Monitor	Monitor	Daily Maximum
Total Suspended Solids, TKN	N/A	Monitor	Daily Maximum

4.2.5 Conventional pollutants TSS, Fecal Coliform and Oil & Grease (O&G)

Current samples and DMR results indicate some conventional pollutants TSS, Fecal Coliform and Oil & Grease (O&G) are of concern reported at 133 mg/L TSS, 2500 col/100 mL Fecal Coliform, and 11mg/l O&G. The O&G limit in the existing permit per 25 Pa. Code § 95.2(2)(ii) is adequate and will be carried forward in the renewed permit. The permittee could not identify the source of the elevated Fecal Coliform since all sanitary wastewater is sent to a POTW. The permittee contend the elevated Fecal Coliform is an anomaly and should be discarded, but DEP disagrees and is requiring monthly monitoring of Fecal Coliform to collect additional data for further analysis at the next permit renewal. Semi-annual monitoring of TSS in the existing permit to address stormwater produced 11 data sets as follows:

1/18/17	7/13/17	12/26/17	7/23/18	12/17/18	1/26/19	7/3/19	12/5/19	7/22/20	12/10/20	7/13/21
117	9	5	28	142	142	260	5	158	65	1000

It is unclear if TSS is high in stormwater only or present in the process wastewater as well. Monitoring frequency of TSS will be increased to monthly to collect more data for analysis. Since it is difficult to sample stormwater separately, one sample in each quarter should be collected for TSS during stormwater and the rest should be collected during dry weather. Benchmarks will be added to the permit for TSS to require corrective action plan when the benchmarks are exceeded two consecutive stormwater monitoring period. TKN has been replaced by Nitrate-Nitrite-N to be sampled during storm water. The rest of the existing limitations and permit requirements are adequate and will be carried forward in the renewed permit.

4.3 Water Quality-Based Effluent Limitations (WQBELs)

4.3.1 Water Quality Modeling

No WQBELs were developed for the discharge since no free-flowing conditions exist in the receiving waters. The models determine pollutant loadings generally based on the stream's assimilative capacity using mixing and dilution conditions.

4.3.2 Chesapeake Bay Requirement

In 2003, EPA established state-wide cap loads for Total Nitrogen and Total Phosphorus for Pennsylvania that are needed to ensure compliance with new water quality standards enacted to restore the water quality of the Chesapeake Bay. DEP released Pennsylvania's Chesapeake Bay Tributary Strategy (CBTS) in January of 2005 to guide Pennsylvania's efforts to meet those cap loads and made revisions to the Strategy in 2006-2007 following a stakeholder process. Industrial discharges have been prioritized by Central Office based on their delivered TN and TP loadings to the Bay. Significant industrial wastewater dischargers are facilities that discharge more than 75 lbs/day of TN or 25 lbs/day of TP on an average annual basis and the rest are classified as non-significant dischargers. DEP developed Chesapeake Bay IW monitoring plan for all industrial facilities that discharge to the Chesapeake Bay. This facility is classified as a non-significant discharger with no potential to introduce nutrients to the receiving stream, therefore no Chesapeake monitoring will be required in the permit.

43.3. Stormwater Requirements

The activities at the site fall under SIC codes 3317, 3441, and 3499 and the requirements in Appendices B and U of the current NPDES PAG 03 general permit presented on the table below applies and will replace the existing stormwater parameters being monitored. Total Chromium and Oil and Grease have been added to the table based on Best Professional Judgement. The permittee shall monitor and report analytical results for the parameters listed below semi-annually on DMRs for Outfall 201. Since outfalls 007 and 008 also receive some stormwater, pollutants on appendices B and U which are not being monitored at outfalls 007 and 008 will be added to be monitored 1/6 months. The benchmark values listed on the table are not effluent limitations, and exceedances do not constitute permit violations. However, if the permittee's sampling demonstrates exceedances of benchmark values for two consecutive monitoring periods, the permittee shall submit a corrective action plan within 90 days of the end of the monitoring period triggering the plan

Parameter (mg/l)	Minimum Measuring Frequency	Sample Type (mg/l)	Benchmark Values
pH (S.U)	1 / 6months	Grab	XXX
Total Suspended Solids (TSS)	1 / 6months	Grab	100
Oil and Grease	1 / 6months	Grab	120
Total Aluminum	1 / 6months	Grab	XXX
Total Zinc	1 / 6months	Grab	XXX
Total Copper	1 / 6months	Grab	XXX
Total Iron	1 / 6months	Grab	XXX
Total Lead	1 / 6months	Grab	XXX
Nitrate + Nitrite-Nitrogen (mg/L)	1 / 6months	Grab	XXX
Total Chromium	1 / 6months	Grab	XXX

5.0 Other Considerations

5.1 Flow Monitoring

The requirement to monitor the volume of effluent from each outfall will be included in the draft permit in accordance with 40 CFR §122.44(i)(1)(ii).

5.2 Antidegradation Requirements (25 PA Code § 93.4):

The effluent limits for this discharge have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. The facility discharge to a stream segment designated as High-Quality Waters. The discharge is not expected to impact the stream negatively. No Exceptional Value Waters are impacted by this discharge.

5.3 Anti-backsliding

TSS and O&G tech limits for outfall 005 were relaxed in accordance with 40 CFR 122.44(l)(2)i(B)(1) which stated that relaxed limitations may be allowed where there is information available which was not available at the time the permit was issued. The tech limits are based on production data and there is a current production number data which was used for the calculation.

5.4 Class A Wild Trout Streams:

No Class A Wild Trout Fisheries are impacted by this discharge.

5.5 Endangered Species

There is no confirmed existence of endangered species in the area close to the discharge. Therefore, the discharge authorized by this permit is not likely to impact any endangered or threatened species or adversely affect its critical habitat.

5.6 303d Listed Streams:

In 2008, DEP has concluded that Pennsylvania Canal is impaired for siltation as a result of urban runoff/storm sewers in which a TMDL is pending. No further action is warranted at this time prior to TMDL development

5.7 Basis for Effluent and Surface Water Monitoring

Section 308 of the CWA and federal regulation 40 CFR 122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather effluent and surface water data to determine if additional effluent limitations are required and/or to monitor effluent impacts on receiving water quality. The permittee is responsible for conducting the monitoring and for reporting results on Discharge Monitoring Reports (DMRs).

5.8 Effluent Monitoring Frequency

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. Permittees have the option of taking more frequent samples than are required under the permit. These samples can be used for averaging if they are conducted using EPA-approved test methods (generally found in 40 CFR 136) and if the Method Detection Limits are less than the effluent limits. The sampling location must be after the last treatment unit and prior to discharge to the receiving water. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

6.0 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" (362-0400-001), SOPs and/or BPJ.

Outfall 007, 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	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/week	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/month	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Chromium, Total	Report	Report	XXX	0.50	1.0	1.25	1/week	24-Hr Composite
Copper, Total	Report	Report	XXX	0.40	0.80	1	1/week	24-Hr Composite
Iron, Total	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Lead, Total	Report	Report	XXX	0.15	0.30	0.38	1/week	24-Hr Composite
Manganese, Total	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Nickel, Total	Report	Report	XXX	0.75	1.50	1.88	1/week	24-Hr Composite
Zinc, Total	Report	Report	XXX	0.50	1.0	1.25	1/week	24-Hr Composite

Compliance Sampling Location: Outfall 007

6.1 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" (362-0400-001), 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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
Total Suspended Solids	1.69	3.38	XXX	Report	Report	XXX	1/week	24-Hr Composite
Oil and Grease	0.57	1.41	XXX	Report	Report	XXX	1/week	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Copper, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Lead, Total	0.008	0.025	XXX	Report	Report	XXX	1/week	24-Hr Composite
Zinc, Total	0.006	0.017	XXX	Report	Report	XXX	1/week	24-Hr Composite

Compliance Sampling Location: Outfall 008

6.2 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" (362-0400-001), SOPs and/or BPJ.

Outfall 201, 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
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chromium, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Copper, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Lead, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 201

7.0 Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☒	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☒	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: Establishing effluent limitation for individual industrial permit
☐	Other:

- Enhanced Removal of Heavy Metals in Primary Treatment Using Coagulation and Flocculation; Water Environment Research, Vol. 80 No. 5 472 – 479; May 2008.
- Industrial Water Quality, Fourth Edition. Eckenfelder, Ford, and Englande, 2009. Chapter 4.
- Guidance for BAT-Equivalent Control of Selected Toxic Pollutants, EPA-905/2-81-003. Patterson, J.W. May 1981

8. Attachments

A. Topographical Map