pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0010227**
Facility Type	**Industrial**	APS ID	**14118**
Major / Minor	**Minor**	Authorization ID	**1021292**

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

Applicant and Facility Information

Applicant Name	**F.L. Smidth, Inc.**	Facility Name	**FL Smidth Gas Compressor & Conveyor Manufacturing**
Applicant Address	236 South Cherry Street Manheim, PA 17545	Facility Address	236 South Cherry Street Manheim, PA 17545
Applicant Contact	Lance Heisey	Facility Contact	Lance Heisey
Applicant Phone	(717) 664-9272	Facility Phone	(717) 664-9272
Client ID	80272	Site ID	238270
SIC Code	3561	Municipality	Manheim Borough
SIC Description	Manufacturing - Pumps And Pumping Equipment	County	Lancaster
Date Application Received	April 7, 2014	EPA Waived?	No
Date Application Accepted	April 30, 2014	If No, Reason	Chiques Creek Alternate TMDL
Purpose of Application	NPDES Renewal.		

Summary of Review

F.L. Smidth, Inc. has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit. The permit was issued on April 10, 2009, and became effective on May 1, 2009. The permit authorized discharge of industrial wastewater and stormwater from the existing facility located in Manheim Borough, Lancaster County into Chiques Creek. The existing permit expiration date was April 30, 2014, and the permit has been administratively extended since that time.

Per the previous permit renewal fact sheet, F.L. Smidth manufactures pumps and compressors. Additionally, the site conducts machining of grey iron, stainless steel, and aluminum casting. There is no process water involved at this site; all discharge is either noncontact cooling water (NCCW) or stormwater. The NCCW discharges to the Manheim Borough storm sewer, which empties into an open storm water drainage ditch 100 feet from Chiques Creek.

Changes in this renewal: Updated monitoring requirements for Stormwater Outfalls 002 and 002A have been included in the permit.

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

Approve	Deny	Signatures	Date
X		Benjamin R. Lockwood / Environmental Engineering Specialist	February 12, 2020
X		Daniel W. Martin, P.E. / Environmental Engineer Manager	May 12, 2020
X		Maria D. Bebenek, P.E. / Program Manager	May 12, 2020

Summary of Review

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.

Supplemental information for this report is located in an attachment.

F.L. Smidth
PA0010227 Supplem

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.12
Latitude	40º 9' 20"	Longitude	76º 23' 32"
Quad Name	Manheim	Quad Code	1734
Wastewater Description:	Noncontact Cooling Water (NCCW), Stormwater		
Receiving Waters	Chiques Creek (WWF, MF)	Stream Code	7919
NHD Com ID	57462607	RMI	20.0
Drainage Area	29.1 mi^2	Yield (cfs/mi^2)	0.12
Q_{7-10} Flow (cfs)	3.49	Q_{7-10} Basis	USGS Gage #01576500
Elevation (ft)	384	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Siltation, Siltation		
Source(s) of Impairment	Source Unknown, Agriculture, Urban Runoff/Storm Sewers		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Columbia Borough Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	22.2

Changes Since Last Permit Issuance: A drainage area of 29.1 mi^2 and a Q_{7-10} flow of 3.49 cubic feet per second (cfs) were determined by establishing a correlation to the yield of USGS Gage Station #01576500 on the Conestoga River. The Q_{7-10} and drainage area at the gage are 38.6 cfs and 324 mi^2, respectively. These values are taken from the USGS document "Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania". The Q_{7-10} runoff rate at the gage station was calculated as follows:

Yield = (38.6 cfs)/ 324 mi^2 = 0.12 cfs/mi^2

The drainage area at the discharge point, taken from USGS PA StreamStats = 29.1 mi^2

The Q_{7-10} at the discharge point = 29.1 mi^2 x 0.12 cfs/mi^2 = 3.49 cfs

Other Comments: None

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	Variable (stormwater)
Latitude	40º 9' 21"	Longitude	76º 23' 26"
Quad Name	Manheim	Quad Code	1734
Wastewater Description:	Stormwater		
Receiving Waters	Chiques Creek (WWF, MF)	Stream Code	7919
NHD Com ID	57462607	RMI	20.0
Drainage Area	29.1 ft^2	Yield (cfs/mi^2)	0.12
Q_{7-10} Flow (cfs)	3.49	Q_{7-10} Basis	USGS Gage # 01576500
Elevation (ft)	384	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Siltation, Siltation		
Source(s) of Impairment	Source Unknown, Agriculture, Urban Runoff/Storm Sewers		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Columbia Borough Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	22.2

Changes Since Last Permit Issuance: None

Other Comments: None

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002A	Design Flow (MGD)	Variable (stormwater)
Latitude	40º 9' 17"	Longitude	76º 23' 31"
Quad Name	Manheim	Quad Code	1734
Wastewater Description:	Stormwater		
Receiving Waters	Chiques Creek (WWF, MF)	Stream Code	7919
NHD Com ID	57462607	RMI	20.0
Drainage Area	29.1 ft^2	Yield (cfs/mi^2)	0.12
Q_{7-10} Flow (cfs)	3.49	Q_{7-10} Basis	USGS Gage # 01576500
Elevation (ft)	384	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Siltation, Siltation		
Source(s) of Impairment	Source Unknown, Agriculture, Urban Runoff/Storm Sewers		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Columbia Borough Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	22.2

Changes Since Last Permit Issuance: None

Other Comments: None

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	Variable (stormwater)
Latitude	40º 9' 16"	Longitude	76º 23' 34"
Quad Name	Manheim	Quad Code	1734
Wastewater Description:	Stormwater		
Receiving Waters	Chiques Creek (WWF, MF)	Stream Code	7919
NHD Com ID	57462607	RMI	20.0
Drainage Area	29.1 ft^2	Yield (cfs/mi^2)	0.12
Q_{7-10} Flow (cfs)	3.49	Q_{7-10} Basis	USGS Gage # 01576500
Elevation (ft)	384	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Siltation, Siltation		
Source(s) of Impairment	Source Unknown, Agriculture, Urban Runoff/Storm Sewers		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Columbia Borough Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	22.2

Changes Since Last Permit Issuance: None

Other Comments: None

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	Variable (stormwater)
Latitude	40º 9' 25"	Longitude	76º 23' 41"
Quad Name	Manheim	Quad Code	1734
Wastewater Description:	Stormwater		
Receiving Waters	Chiques Creek (WWF, MF)	Stream Code	7919
NHD Com ID	57462607	RMI	20.0
Drainage Area	29.1 ft^2	Yield (cfs/mi^2)	0.12
Q_{7-10} Flow (cfs)	3.49	Q_{7-10} Basis	USGS Gage # 01576500
Elevation (ft)	384	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Siltation, Siltation		
Source(s) of Impairment	Source Unknown, Agriculture, Urban Runoff/Storm Sewers		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Columbia Borough Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	22.2

Changes Since Last Permit Issuance: None

Other Comments: None

Discharge, Receiving Waters and Water Supply Information

Outfall No.	005	Design Flow (MGD)	Variable (stormwater)
Latitude	40º 9' 23"	Longitude	76º 23' 43"
Quad Name	Manheim	Quad Code	1734
Wastewater Description:	Stormwater		
Receiving Waters	Chiques Creek (WWF, MF)	Stream Code	7919
NHD Com ID	57462607	RMI	20.0
Drainage Area	29.1 ft^2	Yield (cfs/mi^2)	0.12
Q_{7-10} Flow (cfs)	3.49	Q_{7-10} Basis	USGS Gage # 01576500
Elevation (ft)	384	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Siltation, Siltation		
Source(s) of Impairment	Source Unknown, Agriculture, Urban Runoff/Storm Sewers		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Columbia Borough Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	22.2

Changes Since Last Permit Issuance: None

Other Comments: None

Discharge, Receiving Waters and Water Supply Information

Outfall No.	006	Design Flow (MGD)	Variable (stormwater)
Latitude	40º 9' 24"	Longitude	76º 23' 42"
Quad Name	Manheim	Quad Code	1734
Wastewater Description:	Stormwater		
Receiving Waters	Chiques Creek (WWF, MF)	Stream Code	7919
NHD Com ID	57462607	RMI	20.0
Drainage Area	29.1 ft^2	Yield (cfs/mi^2)	0.12
Q_{7-10} Flow (cfs)	3.49	Q_{7-10} Basis	USGS Gage # 01576500
Elevation (ft)	384	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Siltation, Siltation		
Source(s) of Impairment	Source Unknown, Agriculture, Urban Runoff/Storm Sewers		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Columbia Borough Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	22.2

Changes Since Last Permit Issuance: None

Other Comments: None

Discharge, Receiving Waters and Water Supply Information

Outfall No.	007	Design Flow (MGD)	Variable (stormwater)
Latitude	40º 9' 22"	Longitude	76º 23' 28"
Quad Name	Manheim	Quad Code	1734
Wastewater Description:	Stormwater		
Receiving Waters	Chiques Creek (WWF, MF)	Stream Code	7919
NHD Com ID	57462607	RMI	20.0
Drainage Area	29.1 ft^2	Yield (cfs/mi^2)	0.12
Q_{7-10} Flow (cfs)	3.49	Q_{7-10} Basis	USGS Gage # 01576500
Elevation (ft)	384	Slope (ft/ft)	
Watershed No.	7-G	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Siltation, Siltation		
Source(s) of Impairment	Source Unknown, Agriculture, Urban Runoff/Storm Sewers		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Columbia Borough Water Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	22.2

Changes Since Last Permit Issuance: None

Other Comments: None

Compliance History	
Summary of DMRs:	A summary of the past 12-month DMR effluent data is presented on the next page of this fact sheet.
Summary of Inspections:	6/2/2010: A routine inspection was conducted. The plant operation looked good. The effluent was clear. 6/27/2011: A routine inspection was conducted. The discharge was good and clear. Field readings were within permitted limits. 3/13/2012: A routine inspection was conducted. The discharge appeared clear, and the receiving stream was good and clear. Field readings were within permitted limits. 6/25/2014: A routine inspection was conducted. No water quality concerns were noted during the inspection. The grounds and stormwater outfalls were free of concerns and effluent was clear. Field readings were within permitted limits. 4/27/2017: A routine inspection was conducted. No apparent issues were noted at Chiques Creek. The stormwater outfalls were observed. Outfall 002 appeared to discharge to gravel, Outfall 002a was not observed, Outfall 003 discharged to a stormwater swale at the south end of the property, Outfall 004 and 005 discharged at the northwest end of the site, and Outfall 007 received sheet runoff from the eastern parking lot. Field readings were within permitted limits.

Other Comments: There are currently no open violations associated with the permittee or the facility.

Compliance History

DMR Data for Outfall 001 (from September 1, 2018 to August 31, 2019)

Parameter	SEP-18	OCT-18	NOV-18	DEC-18	JAN-19	FEB-19	MAR-19	APR-19	MAY-19	JUN-19	JUL-19	AUG-19
Flow (MGD) Average Monthly	0.00506	0.00420	0.00397	0.00365	0.00431	0.00406	0.00686	0.00405	0.00471	0.00373	0.00339	
Flow (MGD) Daily Maximum	0.01217	0.00777	0.00849	0.00759	0.01053	0.00851	0.02459	0.01200	0.01901	0.01066	0.00899	
pH (S.U.) Daily Minimum	7.01	6.42	5.36	6.73	5.59	6.39	6.55	6.90	6.80	6.35	6.73	
pH (S.U.) Instantaneous Maximum	7.58	7.30	7.07	7.34	7.05	7.55	7.38	7.56	7.23	7.27	7.24	
Temperature (ºF) Daily Average	69.2	64.6	60.5	60.2	57.5	56.4	59.2	63.3	66.5	69.3	72.7	

Compliance History

Effluent Violations for Outfall 001, from: October 1, 2018 To: August 31, 2019

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
pH	01/31/19	Daily Min	5.59	S.U.	6.0	S.U.
pH	11/30/18	Daily Min	5.36	S.U.	6.0	S.U.

Existing Effluent Limitations and Monitoring Requirements

The table below summarizes the effluent limits and monitoring requirements implemented in the existing NPDES permit.

Outfall 001

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 (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/day	Grab
Temperature (ºF)	XXX	XXX	XXX	110 Daily Max	XXX	XXX	1/day	Grab

Compliance Sampling Location: At discharge from facility

Other Comments: None

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	0.12
Latitude	40º 9' 20"	**Longitude**	76º 23' 32"

Wastewater Description: Noncontact Cooling Water (NCCW), Stormwater

Technology-Based Limitations

pH

PA Code §§ 95.2(1) requires effluent pH limits of 6.0 to 9.0 standard units (S.U.) at all times in effluent. The permit will continue to require pH limit of 6.0 to 9.0 S.U.

Temperature Limitations

A reasonable potential (RP) analysis was performed for temperature which is the main pollutant of concern in the NCCW. Effluent limitations for temperature were calculated using the Case 2 Thermal Worksheet with a wastewater flow of 0.12 mgd, which is listed as the maximum daily discharge rate in the application. A stream Q_{7-10} flow of 3.49 cfs was used in the temperature worksheet. The worksheet recommended permit limits for a discharge to WWF of 110°F, which is the cap for limits generated by the worksheet. This is consistent with the existing Temperature limit for Outfall 001; therefore, it will remain the same. A printout of the worksheet is attached.

Chesapeake Bay Total Maximum Daily Load (TMDL)

DEP developed a strategy to comply with the EPA and Chesapeake Bay Foundation requirements by reducing point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP). This strategy can be located in the Pennsylvania Chesapeake Watershed Implementation Plan (WIP), dated January 11, 2011. Subsequently, an update to the WIP was published as the Phase 2 WIP. As part of the Phase 2 WIP, a Phase 2 Watershed Implementation Plan Wastewater Supplement (Phase 2 Supplement) was developed, providing an update on TMDL implementation for point sources and DEP's current implementation strategy for wastewater. The Phase 2 Supplement was most recently revised on September 6, 2017. 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 a Chesapeake Bay industrial waste (IW) monitoring plan for all industrial facilities that discharge to the Chesapeake Bay. This facility is classified as a non-significant discharger with little or no potential to introduce nutrients to the receiving stream; therefore, no monitoring for TP and TN series will be required at this time for Outfall 001.

Chiques Creek Alternate Restoration Plan

This facility discharges to Chiques Creek. Chiques Creek was included on Pennsylvania's 1996 303(d) List of Impaired Waters due to nutrient impairments. A Total Maximum Daily Load (TMDL) for the Chiques Creek Watershed was approved by the United States Environmental Protection Agency (EPA) on April 9, 2001. Due to several deficiencies within the TMDL, it was withdrawn with approval from EPA on October 28, 2015. DEP, Susquehanna River Basin Commission (SRBC) and watershed stakeholders have been in the process of developing a large scale monitoring and restoration plan. The goal of this Alternate Restoration Plan (ARP) is to address impacts to the Chiques Creek Watershed due to suspended solids/siltation and nutrient pollution. During the ongoing ARP development, facilities which discharge to Chiques Creek will include a TP limit of 2.0 mg/l, derived from 25 Pa. Code § 96.5(c). As this discharge consists of only NCCW and stormwater, and will not have a net increase in TP in comparison to source waters, a TP limit will not be included in the permit during this renewal.

Toxics

Effluent sample results for toxic pollutants reported on the renewal application were entered into DEP's Toxics Screening Analysis worksheet and PENTOXSD to develop appropriate permit requirements for toxic pollutants of concern. A stream hardness value of 250.9 mg/l was used in modeling, taken from WQN Station ID 206 from October 1998 to March 2019. Based on effluent sample results reported on the application, Total Antimony, Total Cadmium, Total Phenols, and Total Selenium are candidates for PENTOXSD modeling as these pollutants are discharged at a level that has the reasonable potential to cause excursions above the state water quality criteria.

Total Cadmium had reported concentrations in the application of "non-detect" using a quantitation limit (QL) that as greater than its target quantitation limit. As a result, this parameter was deemed a pollutant of concern due to the use of a QL greater than the Target QL. Additional sampling for Total Cadmium at the Target QL was requested in a letter dated October 16, 2019, to determine if this pollutant needed to be included into toxics modeling. The additional sampling results were received on December 5, 2019. All results for Total Cadmium were non-detect at the Target QL; therefore, it is no longer a pollutant of concern and has been excluded from toxics modeling.

Stream pH and temperature inputs for this model run were based on data acquired from the National Water Quality Monitoring Council website. Data was analyzed from the Water Quality Network (WQN) Station ID 206 on Chiques Creek from October 1998 to March 2019 for pH and hardness. A 90th percentile analysis was performed on the data and resulted in a Stream pH of 8.3 and a Stream Hardness of 250.9 mg/l. A discharge hardness of 940 mg/l and pH of 7.0 were used in modeling. The resulting Water Quality-Based Effluent Limits (WQBELs) from PENTOXSD are shown in the following table:

Parameter	Max. Concentration in Application or DMRs (µg/l)	Most Stringent WQBEL (µg/l)	Screening Recommendation
Total Antimony	<6	110.879	No Limits/Monitoring
Total Phenols	<50	412.24	No Limits/Monitoring
Total Selenium	<8	98.784	No Limits/Monitoring

When the resulting WQBELs from PENTOXSD were entered into the Toxics Screening Analysis, the worksheet recommended no limits/monitoring were necessary. This data was analyzed based on the guidelines found in DEP's Water Quality Toxics Management Strategy (Document No. 361-0100-003) and DEP's SOP No. BPNPSM-PMT-033. PENTOXSD Model Results are attached to this fact sheet. The Toxics Screening Analysis uses the following logic:

a. Establish average monthly and instantaneous maximum (IMAX) limits in the draft permit where the maximum reported concentration exceeds 50% of the WQBEL.
b. For non-conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 25% - 50% of the WQBEL.
c. For conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 10%-50% of the WQBEL.

The sampling results were all below 10% of their respective WQBELs; therefore, no additional limits or monitoring are necessary.

Total Dissolved Solids (TDS)

Total Dissolved Solids and its major constituents including Bromide, Chloride, and Sulfate have become statewide pollutants of concern and threats to DEP's mission to prevent violations of water quality standards. The requirement to monitor these pollutants must be considered under the criteria specified in 25 Pa. Code § 95.10 and the following January 23, 2014 DEP Central Office Directive:

For point source discharges and upon issuance or reissuance of an individual NPDES permit:

- Where the concentration of TDS in the discharge exceeds 1,000 mg/L, or the net TDS load from a discharge exceeds 20,000 lbs/day, and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for TDS, sulfate, chloride, and bromide. Discharges of 0.1 MGD or less should monitor and report for TDS, sulfate, chloride, and bromide if the concentration of TDS in the discharge exceeds 5,000 mg/L.

- Where the concentration of bromide in a discharge exceeds 1 mg/L and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for bromide. Discharges of 0.1 MGD or less should monitor and report for bromide if the concentration of bromide in the discharge exceeds 10 mg/L.

- Where the concentration of 1,4-dioxane (CAS 123-91-1) in a discharge exceeds 10 µg/l and the discharge flow exceeds 0.1 mgd, Part A of the permit should include monitor and report for 1,4-dioxane. Discharges of 0.1 mgd or less should monitor and report for 1,4-dioxane if the concentration of 1,4-dioxane in the discharge exceeds 100 µg/l.

F.L. Smidth reported the maximum effluent TDS concentration of 444 mg/l and non-detect for Bromide, based on an MDL of 0.5 mg/l. Based upon the data provided in the application, monitoring of TDS and its major constituents will not be included in the permit.

Stormwater Limitations

The application lists seven (8) stormwater outfalls for this facility. Outfall 001 receives stormwater from the building roofs, parking lot, outdoor casting storage, and access roads, with a drainage area of 3.44 acres. Outfall 002 receives stormwater from the facility fence line in the front of the facility, roof drains from the sides of the property, a portion of the parking lot and sidewalks, with a drainage area of 2.75 acres. Outfall 002A is located at the south end of Fuller Street and receives stormwater from 1.03 acres. Outfall 003 is located at the south end of the site and receives stormwater from unoccupied gravel, with a drainage area of 0.68 acres. Outfall 004 is located at the north west end of the site and receives stormwater from the railroad and buildings, with a drainage area of 1.40 acres. Outfall 005 is located at the north and west ends of the site and receives stormwater from the railroad and street, with a drainage area of 0.34 acres. Outfall 006 is located at the west of the site and receives stormwater from the railroad, with a drainage area of 0.68 acres. Outfall 007 is located at the east of the site and receives stormwater from the parking area, with a drainage area of 0.68 acres.

The existing permit requires annual monitoring of $CBOD_5$, Chemical Oxygen Demand (COD), TSS, TP, Total Kjeldahl Nitrogen (TKN), Dissolved Iron, Oil and Grease, and pH at Outfalls 002 and 002A. This monitoring requirement was derived from a previous NPDES PAG-03 General Permit. This facility falls under SIC code 3563. According to DEP's current NPDES PAG-03 General Permit, SIC Code 3563 is subject to Appendix J permitting requirements. This appendix requires semi-annual monitoring for the parameters listed in the table below. These parameters will replace existing parameters in the permit renewal. Monitoring for these parameters will only be included for Stormwater Outfalls 002 and 002A, as the Outfall 003-007 drainage areas do not contain any stored materials, per the previous fact sheet.

Stormwater will be monitored and managed using best management practices. The permittee shall monitor and report analytical results for the parameters listed below on Discharge Monitoring Reports (DMRs) for Outfall 002 and 002A. 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	Minimum Measurement Frequency	Sample Type (mg/l)	Benchmark Values
Total Suspended Solids	1 / 6months	Grab	100
Oil and Grease	1 / 6months	Grab	30

Anti-Degradation

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. No High Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

303(d) Listed Streams

The discharge is located on a stream segment that is designated on the 303(d) list as impaired. There is a recreational impairment for pathogens from an unknown source. There is an aquatic life impairment for siltation due to agriculture and urban runoff/storm sewers.

Class A Wild Trout Fisheries

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

Anti-Backsliding

Pursuant to 40 CFR § 122.44(l)(1), all proposed permit requirements addressed in this fact sheet are at least as stringent as the requirements implemented in the existing NPDES permit unless any exceptions addressed by DEP in this fact sheet.

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 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/day	Grab
Temperature (ºF)	XXX	XXX	XXX	110 Daily Max	XXX	XXX	1/day	Grab

Compliance Sampling Location: Outfall 001

Other Comments: None

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 002, 002A 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		
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

Compliance Sampling Location: Outfalls 002, 002A

Other Comments: None

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	PENTOXSD for Windows Model (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☒	Temperature Model Spreadsheet (see Attachment)
☒	Toxics Screening Analysis 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:
☐	Other: