pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0051497**
Facility Type	**Industrial**	APS ID	**1100262**
Major / Minor	**Minor**	Authorization ID	**1460650**

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

Applicant and Facility Information

Applicant Name	**Lenape Forged Products Corp**	Facility Name	**Lenape Forged Products Corp**
Applicant Address	1334 Lenape Road	Facility Address	1334 Lenape Road
	West Chester, PA 19382-6893		West Chester, PA 19382-6893
Applicant Contact	Robert Lachney	Facility Contact	Robert Lachney
Applicant Phone	(610) 793-5090	Facility Phone	(610) 793-5090
Client ID	74732	Site ID	458614
SIC Code	3599	Municipality	Pocopson Township
SIC Description	Manufacturing - Industrial Machinery	County	Chester
Date Application Received	May 1, 2023	EPA Waived?	No
Date Application Accepted		If No, Reason	TMDL

Purpose of Application: NPDES Permit Renewal

Summary of Review

Applicant requests renewal of an NPDES permit for the discharge of contact cooling water and storm water from Lenape Forged Products facility to Brandywine Creek.

The facility produces custom forgings and maintains three tanks for quenching. Only two are used. The facility discharges from only one of the quench tanks when the temperature of the water exceeds the quenching specifications for the component they are producing. The discharge is very infrequent. The tank is pumped out every 3 years. Water is supplemented with onsite well water.

This discharge is under the Christina River Watershed which has an approved Low-Flow TMDL. Current permit has a monitoring requirement for the TMDL parameters CBOD5, NH3-N, TN, TP and DO.

According to the past records, the values listed as allocations in the TMDL can be traced back to the default input values in the EPA EFDC water quality model report. The default input values were carried over as results from the modeling but are not appropriate or necessary as effluent limits in the permit. There are no sources for these parameters.

The last time a discharge occurred from the quench tank was in August 2020. Based on the very infrequent discharge and the high dilution available it is not necessary to establish limits in the permit. Current monitoring is recommended for the new permit.

Christina River Basin High Flow TMDL addresses Bacteria and Sediment and WLAs are assigned for TSS and Fecal Coliform for this facility. Based on the sample results there is no reasonable potential to exceed the TSS WLA. Based on the character of the wastewater discharged from the facility, there is no reasonable potential for this discharge to exceed the Fecal Coliform WLA. The current monitoring requirement for TSS at outfall 001 is adequate to characterize the TSS levels discharging from the site during storm water events. The permittee is advised to discharge during low flow conditions.

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	May 7, 2024
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	05/08/2024

Summary of Review

This discharge is also listed under Christina High Flow TMDL for Nutrient and Low DO. The WLAs are similar to the WLAs in the Low Flow TMDL.

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.

Act 14 Notifications:

Pocopson Township - April 14, 2023
Chester County - April 11, 2023

Permit Conditions:

A. Acquire Necessary Property Rights
B. Proper Sludge Disposal
C. WQM Permit Condition
D. BAT/ELG Reopener
E. 2-degree Change in Temperature
F. Stormwater Outfall Requirement

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.03
Latitude	39º 54' 52.63"	Longitude	-75º 37' 55.10"
Quad Name	Unionville	Quad Code	1940
Wastewater Description:	Contact Cooling Water (CCW), Stormwater		
Receiving Waters	Brandywine Creek	Stream Code	00004
NHD Com ID	26107228	RMI	18.2
Drainage Area	265 mi^2		
Q_{7-10} Flow (cfs)	62	Q_{7-10} Basis	Previous fact sheet
Watershed No.	3-H	Chapter 93 Class.	WWF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	Siltation		
Source(s) of Impairment	Agriculture, Urban Runoff/Storm Sewers		
TMDL Status	Final	Name	Christina River Basin
Nearest Downstream Public Water Supply Intake	No public water supply intake downstream on Brandywine Creek in PA		

Compliance History

DMR Data for Outfall 001 (from November 1, 2022 to October 31, 2023)

Parameter	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22
pH (S.U.) Daily Maximum					7.2						7.24	
BOD5 (mg/L) Daily Maximum					2.6						< 3	
COD (mg/L) Daily Maximum					< 25						87	
TSS (mg/L) Daily Maximum					10.6						12.4	
Oil and Grease (mg/L) Daily Maximum					< 5.0						27.0	
Total Nitrogen (mg/L) Daily Maximum					< 2.17						0.6	
Total Phosphorus (mg/L) Daily Maximum					< 0.06						0.18	

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	.03
Latitude	39º 54' 53.00"	**Longitude**	-75º 37' 55.00"

Wastewater Description: Contact Cooling Water (CCW), Stormwater

Comments: Monitoring for the existing stormwater parameters, Oil and Grease, BOD5, COD, TSS, Total Nitrogen, Total Phosphorus and pH is recommended to continue in the draft permit. Also, Total Al, Total Fe, Total Zn and Nitrate-Nitrite as N are included for monitoring as these are consistent with the PAG03 Appendix U which is applicable for this type of operation based on the SIC Code 3599.

Development of Effluent Limitations

Outfall No. 101 **Design Flow (MGD)** 0.03
Latitude 39º 54' 53.00" **Longitude** -75º 37' 55.00"
Wastewater Description: Contact cooling water from a quench tank

Technology-Based Limitations

Comments: 40 CFR. Part 420.132 subpart M applies to forging operations. Since this discharge is very infrequent and the discharge flow is very small compared to the receiving stream flow, it is not necessary to implement these stringent technology limits.

Water Quality-Based Limitations

A "Reasonable Potential Analysis" determined the following parameters are of concern:

Parameter	Maximum Concentration (ug/l)	Most Stringent Criteria (ug/l)	Comment
Total Copper	97	9.0	Monitoring/existing*
Total Nickel	297	52	Monitoring/existing*
Total Cyanide	10,000	**	Monitoring
Free Cyanide		**	Monitoring

*Because of the very high dilution (1:1333) available and the very infrequent discharge no need to establish limit.
**No criterion exists for Total Cyanide; however, monitoring is included as the quench tank concentration is elevated; Monitoring for Free Cyanide is also included as it is a more reliable measure of toxicity.

Effluent limits in the existing permit are recommended to continue for the renewal. The TSS limit of 30 mg/l (average monthly) is based on DRBC regulations. Oil and Grease limit of 10 mg/l (average monthly) is technology based 30 mg/l (I max.) is water quality based (chap. 95.2). Temperature limit of 110 º F is based on DRBC interpretive guideline. pH limit of 6.0 to 9.0 is based on chap. 95.2.

PFAS Monitoring

According to the new guidance, special monitoring requirements for PFOA, PFOS, HFPO-DA and PFBS are included in the draft permit. Quarterly monitoring is included as this is one of EPA's Categorical industry. Monitoring is recommended from the quench tank. The permittee may discontinue monitoring for PFOA, PFOS, HFPO-DA, and PFBS if the results in 4 consecutive monitoring periods indicate non-detect results at or below Quantitation Limits of 4.0 ng/L for PFOA, 3.7 ng/L for PFOS, 3.5 ng/L for PFBS and 6.4 ng/L for HFPO-DA. When monitoring is discontinued, permittees must enter a No Discharge Indicator (NODI) Code of "GG" on DMRs.

Anti-Backsliding

N/A

Proposed Effluent Limitations and Monitoring Requirements

Outfall 001, 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
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	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
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Proposed Effluent Limitations and Monitoring Requirements

Monitoring Point 101, 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		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Daily when Discharging	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	Daily when Discharging	Grab
Dissolved Oxygen	XXX	XXX	Report Inst Min	Report	XXX	XXX	Daily when Discharging	Grab
Temperature (deg F) (ºF)	XXX	XXX	XXX	XXX	XXX	110	Daily when Discharging	I-S
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	Report	Report	XXX	Daily when Discharging	Grab
Total Suspended Solids	XXX	XXX	XXX	30	60	75	Daily when Discharging	Grab
Oil and Grease	XXX	XXX	XXX	10	XXX	30	Daily when Discharging	Grab
Total Nitrogen	XXX	XXX	XXX	Report	Report	XXX	Daily when Discharging	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	Report	Report	XXX	Daily when Discharging	Grab
Total Phosphorus	XXX	XXX	XXX	Report	Report	XXX	Daily when Discharging	Grab
Copper, Total	XXX	XXX	XXX	Report	Report	XXX	Daily when Discharging	Grab
Cyanide, Free	XXX	XXX	XXX	Report	Report	XXX	Daily when Discharging	Grab
Cyanide, Total	XXX	XXX	XXX	Report	Report	XXX	Daily when Discharging	Grab
Nickel, Total	XXX	XXX	XXX	Report	Report	XXX	Daily when Discharging	Grab
PFOA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

Monitoring Point 101, 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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
PFOS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
PFBS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab