Pennsylvania
Department of
Environmental Protection

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0231797**
Facility Type	**Industrial**	APS ID	**1111284**
Major / Minor	**Minor**	Authorization ID	**1480194**

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

Applicant and Facility Information

Applicant Name	**Function of Beauty**	Facility Name	**Function of Beauty**
Applicant Address	5570 Snydertown Road	Facility Address	5570 Snydertown Road
	Paxinos, PA 17860-7536		Paxinos, PA 17860-7536
Applicant Contact	Ed Nolter	Facility Contact	Ed Nolter
Applicant Phone	616-369-3350	Facility Phone	616-369-3350
Client ID	349339	Site ID	846447
SIC Code	2844	Municipality	Shamokin Township
SIC Description	Manufacturing - Toilet Preparations	County	Northumberland
Date Application Received	April 03, 2024	EPA Waived?	Yes
Date Application Accepted	January 07, 2025	If No, Reason	N/A
Purpose of Application	New NPDES permit to discharge treated industrial wastewater		

Summary of Review

INTRODUCTION

Ed Nolter of Function of Beauty applied for a new NPDES Industrial Waste permit to authorize the discharge of treated industrial wastewater to surface waters of the Commonwealth from an industrial facility in Shamokin Township, Northumberland County.

APPLICATION

Ed Nolter submitted the NPDES *Application for Individual Permit to Discharge Industrial Wastewater* (DEP #3800-PMBCW0008b). This application was received by the Department on April 03, 2024 and considered administratively complete on April 17, 2024. Ed Nolter, Director of Environmental Health and Safety, is both the site and client contact. His additional contact information is (email) ednolter@functionofbeauty.com. The application consultant is Gregory Webb, Senior Project Manager with Brownfield Science and Technology, Inc. (BSTI). His contact information is (phone) 610-593-5500 and (email) gwebb@bstiweb.com.

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.

The case-file, permit application package and draft permit will be available for public review at Department's Northcentral Regional Office. The address for this office is 208 West Third Street, Suite 101, Williamsport, PA 17701. An appointment can be made to review these materials during the comment period by calling the file coordinator at 570-327-3636.

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Approve	Return	Deny	Signatures	Date
X			Jeffrey J. Gocek, EIT Project Manager	05/15/2025
X			Nicholas W. Hartranft, PE Environmental Engineer Manager	05/15/2025

DISCHARGE, RECEIVING WATERS AND WATER SUPPLY INFORMATION

Outfall No.	001	Design Flow (MGD)	0.0032
Latitude	40º 52' 16.55"	Longitude	-76º 35' 20.20"
Wastewater Description:	IW Process Effluent with ELG		
Receiving Waters	Shamokin Creek (WWF, MF)	Stream Code	18489
NHD Com ID	54960773	RMI	1.2500
Drainage Area (mi^2)	80.8	Yield (cfs/mi^2)	0.4059
Q_{7-10} Flow (cfs)	32.797	Q_{7-10} Basis	USGS Gage 01554500
Elevation (ft)	526	Slope (ft/ft)	0.00229
Watershed No.	6-B	Chapter 93 Class.	WWF, MF
Existing Use	None	Existing Use Qualifier	N/A
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired (Aquatic Life)		
Cause(s) of Impairment	Metals		
Source(s) of Impairment	Acid Mine Drainage		
TMDL Status	Final	Name	Shamokin Creek Watershed
Nearest Downstream Public Water Supply Intake	SUEZ Water of Harrisburg		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	2,389
PWS RMI	76.5	Distance from Outfall (mi)	46.0

Q7,10 DETERMINATION

The Q7,10 is the lowest seven consecutive days of flow in a 10-year period and is used for modeling wastewater treatment plant discharges. 25 PA § 96.1 defines Q7,10 as "the actual or estimated lowest 7 consecutive day average flow that occurs once in 10 years for a stream with unregulated flow, or the estimated minimum flow for a stream with regulated flow".

A stream gage upstream of the existing discharge, "Shamokin Creek near Shamokin, PA" (USGS #01554500) was selected as a reference gage. A Q7,10 flow for that gage (22.0 CFS) was obtained from *Selected Streamflow Statistics for Streamgage Locations in and near Pennsylvania* (USGS Open Files Report 2011-1070). The drainage area at the point of discharge (80.8 mi2) was calculated by the *USGS Pennsylvania StreamStats* application. Knowing the drainage area (80.8 mi2) at the discharge and both the drainage area (54.2 mi2) and Q7,10 (22.0 CFS) at the reference gage, the Q7,10 at the discharge was calculated to be 32.79 CFS.

See Attachment 01 for the Q7,10 determination.

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INDUSTRIAL ACTIVITY

Function of Beauty (FOB) is a cosmetics, shampoo and conditioner manufacturer. FOB allows consumers to customize their product formulas using a careful algorithmic process developed by MIT engineers. This FOB manufacturing facility is existing. Wastewater is currently containerized, stored and hauled offsite for disposal.

FOB reported a *Standard Industrial Classification* (SIC) number of 2844. According to OSHA, this code is described as *Perfumes, Cosmetics, and other Toilet Preparations*. The definition is "Establishments primarily engaged in manufacturing perfumes (natural and synthetic), cosmetics and other toilet preparations. This industry also includes establishments primarily engaged in blending and compounding perfume bases; and those manufacturing shampoos and shaving products, whether from soap or synthetic detergents".

See Attachment 02 for a map of the FOB location.

TREATMENT FACILITY

Waste streams at this manufacturing facility include 1. reverse osmosis (RO) and deionized (DI) water processing and 2. clean-in-place (CIP) wastewater from the cleaning of the manufacturing equipment. The CIP wastewater include byproducts of the washout including peracetic acid (PAA), an antimicrobial oxidizer. Sodium hydroxide is used in the manufacturing process.

These streams will be combined in a mixing tank prior to discharge. This batch discharge (2 hours per day, 5 days per week) will have an average flow of 0.0032 MGD.

See Attachment 03 for a process flow diagram.

COMPLIANCE HISTORY

The WMS Query *Open Violations by Client* revealed no unresolved violations for FOB.

OUTFALLS

Outfall 001 will be the process wastewater batch discharge as described above. This outfall will be located at latitude 40°52'21.34" and longitude -76°35'19.24.

Outfall SW01 will be the stormwater discharge. This outfall is located at latitude 40°52'25.74" and longitude -76°35'20.34". See below for the No Exposure Certification.

See Attachment 04 for a site map.

SOAP AND DETERGENT MANUFACTURING INDUSTRY

According to epa.gov, the industry consists of industrial facilities which manufacture soap, synthetic organic detergents, inorganic alkaline detergents, or any combination. Crude and refined glycerine from vegetable and animal fats and oils are also included. Wastewater is generated by steam pretreatment, soap boiling, equipment cleanouts, scrubber waters, scrap reclamation, condensers, still bottoms and leaks/spills.

SOAP AND DETERGENT MANUFACTURING REGULATIONS

The *Federal Water Pollution Control Act Amendments of 1972 (Clean Water Act (CWA))* established a comprehensive program to "restore and maintain the chemical, physical and biological integrity of the Nation's waters". In order to implement the CWA, EPA has issued effluent limitation guidelines (ELGs), pretreatment standards and new source performance standards for industrial dischargers. These guidelines and standards are comprised of:

1. Practicable Control Technology Currently Available (BPT)
2. Best Available Technology Economically Achievable (BAT)
3. Best Conventional Pollutant Control Technology (BCT)
4. New Source Performance Standards (NSPS)
5. Pretreatment Standards for Existing Sources (PSES)
6. Pretreatment Standards for New Sources (PSNS)

The applicable regulations are Title 40 (Protection of the Environment), Chapter I (Environmental Protection Agency), Subchapter N (Effluent Guidelines and Standards) and Part 417 (Soap and Detergent Manufacturing Point Source Category).

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FOB is considered a new source and is therefore subject to 40 CFR § 417.165 (Standards for performance for new sources).

These regulations are as follows.

Parameter	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Pounds per 1,000 pounds of anhydrous product	
BOD5	0.10	0.05
COD	0.44	0.22
TSS	0.01	0.005
Surfactants	0.10	0.05
Oil and Grease	0.01	0.005
pH	Within the range 6.0 to 9.0	

PRODUCTION DATA

Since the facility is new, only two years of production data have been provided (2023 and 2024). See following table for production data.

DATA (pounds of anhydrous product)	2023	2024
Total Annual Production	1,012,137	909,7333
Maximum Monthly Production	84,345	75,811
Average Production Hours Per Day	8	10
Average Production Days Per Month	20	17

FOB reports an anticipated average annual production for the next five years of 1,013,268 pounds of anhydrous product. In the regulations, *anhydrous product* is defined as "the theoretical product that would result if all water was removed from the actual product". The Department considers the 2023 maximum monthly production (84,345 pounds) as an appropriate theoretical month for the purposes of calculating effluent limitations, both maximum daily and monthly average.

See Attachment 05 for the reported production data.

DEVELOPMENT OF EFFLUENT LIMITATIONS

ELG Limitations

The maximum monthly production of 84,345 pounds of anhydrous product equates to 84.345 pounds per 1,000 pounds of anhydrous product.

Parameter	DAILY MAXIMUM		AVERAGE MONTHLY	
	Multiplier	Value	Multiplier	Value
BOD5	*0.10*	8.43	*0.05*	4.22
COD	*0.44*	37.11	*0.22*	18.56
TSS	*0.01*	0.84	*0.005*	0.42
Surfactants	*0.10*	8.43	*0.05*	4.22
Oil and Grease	*0.01*	0.84	*0.005*	0.42

According to the specialized definitions in 40 CFR § 417.161, the term *surfactant* shall mean those methylene blue active substances amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes" (1971, Environmental Protection Agency, Analytical Quality Control Laboratory, page 131). The Department will establish an effluent limitation for MBAS with the above values.

Technology-Based Limitations

Pollutant	Limit (mg/L)	SBC	Federal Regulation	State Regulation
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 SU	Min - Max	133.102(c)	95.2(1)
Oil and Grease	15	Average Monthly		95.2(2)(ii)
Total Residual Chlorine	0.5	Average Monthly		92a.48(b)(2)

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Total Dissolved Solids

Total Dissolved Solids (TDS) are a measure of the dissolved combined content of all inorganic and organic substances present in a liquid in a molecular, ionized or micro-granular suspended form. In accordance with the Department's *Policy and Procedure for NPDES Permitting of Discharges of Total Dissolved Solids* (#386-2100-002), this facility is classified as Non-Exempt (Other) since the facility discharge data has shown effluent (maximum daily) values greater than 2,000 mg/L. In the application, FOB reported a maximum monthly value of 4,046.67 mg/L and a maximum daily value of 7,100 mg/L. The guidance requires concentration-based limitations of 2,000 mg/L (average monthly) and 4,000 mg/L (maximum daily). Loading based limitations will also be applied, in accordance with 40 CFR § 122.45.

$CBOD_5$, NH_3-N and DO

*WQM 7.0 for Win*dows is a DEP computer model used to determine wasteload allocations and effluent limitations for $CBOD_5$, NH_3-N and DO for single and multiple point source discharge scenarios. This model simulates two basic processes. The NH_3-N module simulates the mixing and degradation of NH_3-N in the stream and compares calculated instream NH_3-N concentrations to the water quality criteria. The DO module simulates the mixing and consumption of DO in the stream due to degradation of $CBOD_5$ and NH_3-N and compares the calculated instream DO concentrations to the water quality criteria. The model then determines the highest pollutant loading the stream can assimilate and still meet water quality criteria under the design conditions.

The model recommended the following:

Parameter	Effluent Limitations (mg/L)		
	30 Day Average	Maximum	Minimum
$CBOD_5$	25		
NH_3-N	25	50	
DO			3.0

See Attachment 06 for the WQM model results. Since no Water-Quality based limitations were calculated, ample dilution is available and no tech-based limits will be established.

Water Quality-Based Limitations

Toxic Screening Analysis

FOB analyzed and submitted analyses for all parameters in Pollutant Groups 1, 2, 3, 4 and 5. Only effluent was data was submitted with the application. Maximum pollutant concentrations, and non-detects (NDs) at Target QLs were entered into the Department's Toxics Management Spreadsheet (TMS, version 1.4), which is used to determine reasonable potential (RP) and calculate water quality-based effluent limitations (WQBELS) for discharges of toxic pollutants from a single discharge point. The TMS utilizes the following logic to assign either no action, effluent limitation or monitoring; 1. Establish average monthly, daily maximum and IMAX limits in the draft permit where the maximum reported concentration exceeds 50% of the WQBEL (RP is demonstrated), 2. Establish monitoring requirements for non-conservative pollutants where the maximum reported concentrations is between 25% to 50% of the WQBEL and 3. Establish monitoring requirements for conservative pollutants where the maximum reported concentration is between 10% to 50% of the WQBEL.

The TMS recommended the following monitoring and limitations.

	Mass Limits		Concentration						
Pollutant	AML (lbs/day)	MDL (lb/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comment
Pentachlorophenol	0.025	0.040	951	1,484	2,378	µg/L	951	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Benzo(a)Anthracene	0.0008	0.001	31.7	49.5	79.3	µg/L	31.7	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Benzo(a)Pyrene	0.00008	0.0001	3.17	4.95	7.93	µg/L	3.17	CRL	Discharge Conc ≥ 50% WQBEL (RP)
3,4-Benzofluoranthene	0.0008	0.001	31.7	49.5	79.3	µg/L	31.7	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Dibenzo(a,h)Anthrancene	0.00008	0.0001	3.17	4.95	7.93	µg/L	3.17	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Hexachlorobenzene	0.00007	0.0001	2.54	3.96	6.34	µg/L	2.54	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Indeno(1,2,3-cd)Pyrene	0.0008	0.001	31.7	49.5	79.3	µg/L	31.7	CRL	Discharge Conc ≥ 50% WQBEL (RP)
n-Nitrosodimethylamine	0.0006	0.0009	22.2	34.6	55.5	µg/L	22.2	CRL	Discharge Conc ≥ 50% WQBEL (RP)

The parameters proposed for limitations (above) were identified as non-detectable (ND) in the application's pollutant groups and are not typically found in the effluent from this type of industrial facility. Some of the NDs were higher than the Chapter 93 criteria and the Target QLs identified in the application instructions and are therefore considered parameters of concern. **FOB is offered another opportunity during the draft permit comment period in order to demonstrate these pollutants are not in the effluent.**

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Because the value of the limitation for Hexachlorobenzene is so low, a special condition has been included in Part C (WQBELs Below Quantitation Limits). This condition offers guidance to properly report values in this situation.

Best Professional Judgment (BPJ) Limitations

In the absence of applicable effluent guidelines for the discharge or pollutant, permit writers must identify and/or develop needed technology-based effluent limitations (TBELs) TBELs on a case-by-case basis, in accordance with the statutory factors specified in the Clean Water Act. No BPJ limitations are proposed. The Department is establishing a technology-based effluent limitation for Total Residual Chlorine (TRC) of 0.5 mg/L (monthly average) as BPJ.

Anti-Backsliding Limitations

In order to comply with 40 CFR § 122.44(l) (anti-backsliding requirements), the Department must issue a renewed permit with limitations as stringent as that the of the previous permit. There is no previous permit.

DEVELOPMENT OF EFFLUENT MONITORING

Industrial Parameters of Concern

During the development of the Department's *PAG-03 Authorization to Discharge Under the NPDES General Permit for Discharges of Stormwater Associated with Industrial Activity* (DEP #3800-PM-BCW0083d), the Department included SIC code 2844 under Appendix F (*Chemicals and Allied Products*). In accordance with the Department's *Standard Operating Procedure for Establishing Effluent Limits for Individual Industrial Permits* (DEP #BCW-PMT-032), any included parameters in that related Appendix should be considered minimum standards for discharges from that industry. Parameters of concern included in Appendix F are Total Nitrogen, Total Phosphorus, pH, Chemical Oxygen Demand, Total Suspended Solids, Nitrate+Nitrite Nitrogen, Total Lead, Total Zinc, Total Iron and Total Aluminum.

TMDL Metals

According to Department water quality data, Shamokin Creek is not attaining its designated uses with respect to aquatic life. The stream is impaired by metals due to Abandoned Mine Drainage (AMD). A Total Maximum Daily Load (TMDL) was developed for Shamokin Creek by the Department's Pottsville District Mining office and the Susquehanna River Basin Commission in 2001. This TMDL was approved by EPA later in 2001. The TMDL recommends the reduction in the discharge of metals in excess of the Department's water quality standards. The TMDL set allowable loadings at specified points in Shamokin Creek for Aluminum, Iron, Manganese and Acidity from both point and nonpoint sources. Shamokin Creek is attaining its designated uses for recreation.

The TMDL parameters of concern for impairments due to Acid Mine Drainage are Total Aluminum, Total Iron and Total Manganese. These will be monitored on an annual basis to prevent contribution to impairment.

Per- and Polyfluoroalkyl Substances

Per- and Polyfluoroalkyl Substances (PFAS) are widely used, long lasting chemicals, components of which break down very slowly over time. Because of their widespread use and their persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment. Scientific studies have demonstrated that exposure to some PFAS in the environment may be linked to harmful effects in humans and animals. To assist the Environmental Protection Agency (EPA) in studying the effects of PFAS, the Department is requiring the quarterly monitoring of PFOA, PFOS, HFPO-DA and PFBS. In accordance with 25 PA § 92a.61, the Department may impose reasonable monitoring requirements on pollutants which could have impact on the quality of the Commonwealth's waters or the quality of waters in other states.

Since the data submitted with the application was not tested to appropriate Department Target Quantitation Levels (QLs), quarterly monitoring will be established in the permit. The NDs were higher than the Target QLs identified in the application instructions and are therefore considered parameters of concern. **FOB is offered another opportunity during the draft permit comment period in order to demonstrate these pollutants are not in the effluent.**

The permit contains a special condition in Part C (PFAS Monitoring) which allows the permittee to discontinue monitoring for PFOA, PFOS, HFPO-DA and PFBS if the results in four consecutive monitoring periods indicate non-detects at or below the QLs 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.

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Dissolved Oxygen

The Department is establishing a monitoring requirement for Dissolved Oxygen (DO). DO concentrations above 4.0 mg/L ensure that the effluent is well oxygenated at the point of discharge and the instream DO criteria is not violated (25 PA § 93.7).

Additional Parameters

Due to elevated values reported in the application, certain parameters are considered parameters of concern. The following parameters will be reported during the following permit term, Total Organic Carbon (TOC) and Chloride.

NUTRIENT MONITORING

The monitoring of Total Nitrogen and Total Phosphorus was not imposed since the values reported in the application for Total Phosphorus and the constituents of Total Nitrogen (Ammonia-Nitrogen, TKN and Nitrate+Nitrite-Nitrogen) did not approach the thresholds of 25 pounds per day Total Phosphorus and 75 pounds per day Total Nitrogen. These thresholds are included in the Department's *Standard Operating Procedure* (*SOP) for New and Reissuance Industrial Waste and Industrial Stormwater Individual NPDES Permit Applications (#BCW-PMT-001)*

STORMWATER NO EXPOSURE CERTIFICATION

FOB was issued a No Exposure Certification approval, #NOEXNC168, December 14, 2020. This approval became effective January 01, 2021. The No Exposure Certification will be included as part of the Stormwater Requirements special condition at issuance. The previous approval will be terminated at the issuance.

The site has one stormwater outfall, where all stormwater from the industrial area discharges to a swale on the west side of the site. The stormwater outfall drains approximately 130,000 square feet (approximately three acres), with 55% of that covered by impervious surface. Since all industrial activity occurs under roof, the No Exposure Certification will remain in effect.

PPC PLAN

A Spill Prevention, Control and Countermeasure Plan was submitted with the application, in lieu of a Preparedness, Prevention and Contingency (PPC) Plan. This plan will need to be revised in accordance with the stormwater requirements contained in the permit.

RECEIVING STREAM

Stream Characteristics

The receiving stream is Shamokin Creek, a tributary to the Susquehanna River. Shamokin Creek, according to 25 PA § 93.9M, is protected for *Warm Water Fishes (WWF)* and *Migratory Fishes (MF)*. These are the streams *Designated Uses*, which is defined in 25 PA § 93.1 as "those uses specified in §§ 93.9a – 93.9z for each waterbody or segment whether or not the use is being attained". Designated uses are regulations promulgated by the Environmental Quality Board (EQB) throughout the rulemaking process. This stream currently has no *Existing Use*, which is defined in 25 PA § 93.1 as "those uses actually attained in the waterbody on or after November 28, 1975 whether or not they are included in the water quality standards". Shamokin Creek is identified by stream code 18489. This stream is in (Chapter 93) drainage list M and State Water Plan watershed 6B (Mahanoy and Shamokin Creeks).

Impairment/TMDL

According to Department water quality data, Shamokin Creek is not attaining its designated uses with respect to aquatic life. The stream is impaired by metals due to Abandoned Mine Drainage (AMD). A Total Maximum Daily Load (TMDL) was developed for Shamokin Creek by the Department's Pottsville District Mining office and the Susquehanna River Basin Commission in 2001. This TMDL was approved by EPA later in 2001. The TMDL recommends the reduction in the discharge of metals in excess of the Department's water quality standards. The TMDL set allowable loadings at specified points in Shamokin Creek for Aluminum, Iron, Manganese and Acidity from both point and nonpoint sources.

Shamokin Creek is attaining its designated uses for recreation.

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ADDITIONAL CONSIDERATIONS

Mass and Concentration Limitations

Existing mass limitations are calculated by multiplying the concentration (mg/L) by the flow (MGD) by the conversion (8.34).

Rounding of Limitations

Limitations have been rounded in accordance with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (#362-0400-001).

Limit Multipliers

The instantaneous maximum limitations have been calculated using multipliers of 2.0 (for sewage discharges) and 2.5 (for toxic industrial discharges) for determining the IMAX. This practice is in accordance with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (#362-0400-001).

Sample Frequencies and Types

The sample type and minimum measurement frequencies are in accordance with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (#362-0400-001).

Standard Operating Procedures (SOPs)

The review of this permit application was performed in accordance with the Department's *SOP for New and Reissuance Industrial Waste and Industrial Stormwater Individual NPDES Permit Applications (#BCW-PMT-001)* and *SOP for Establishing Effluent Limitations for Individual Industrial Permits* (SOP #BCW-PMT-032).

SPECIAL PERMIT CONDITIONS

Stormwater Requirements
Stormwater Prohibition
Approval Contingencies
Proper Waste Disposal
WQBELs Below Quantitation Limits
Chemical Additives
PFAS Monitoring

SUPPLEMENTAL DISCHARGE MONITORING REPORTS

Daily Effluent Monitoring
Non-Compliance Reporting
Lab Accreditation
Stormwater Annual Report Form

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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

Discharge Parameter	Mass Limits (lb/day)		Concentrations (mg/L unless noted)				Monitoring Requirements	
	Monthly Average	Daily Maximum	Minimum	Monthly Average	Daily Maximum	IMAX	Minimum Measurement Frequency	Required Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Meter
pH	XXX	XXX	6.0 Instant Min	XXX	XXX	9.0	Daily When Discharging	Grab
Dissolved Oxygen	XXX	XXX	Report	XXX	XXX	XXX	1/Week	Grab
BOD5	4.0	8.0	XXX	155	315	395	1/Week	24 Hour Comp
Chemical Oxygen Demand	18.0	37.0	XXX	695	1,390	1,735	1/Week	24 Hour Comp
Total Suspended Solids	0.42	0.84	XXX	15	31	39	1/Week	24 Hour Comp
Oil and Grease	0.42	0.84	XXX	15	31	39	1/Week	24 Hour Comp
MBAS	4.0	8.0	XXX	155	315	395	1/Week	24 Hour Comp
Total Residual Chlorine	XXX	XXX	XXX	0.5	XXX	1.6	1/Week	Grab
Total Dissolved Solids	50.0	105.0	XXX	2,000	4,000	5,000	1/Week	Grab
Total Organic Carbon	XXX	Report	XXX	XXX	Report	XXX	1/Week	24 Hour Comp
Chloride	XXX	Report	XXX	XXX	Report	XXX	1/Week	24 Hour Comp
Pentachlorophenol	0.02	0.04	XXX	0.95	1.48	2.37	1/Week	24 Hour Comp
Benzo(a)Anthracene (ug/L)	0.0008	0.001	XXX	31.70	49.50	79.30	1/Week	24 Hour Comp
Benzo(a)Pyrene (ug/L)	0.00008	0.0001	XXX	3.17	4.95	7.93	1/Week	24 Hour Comp
3,4-Benzofluoranthene (ug/L)	0.0008	0.001	XXX	31.70	49.50	79.30	1/Week	24 Hour Comp
Dibenzo(a,h)Anthrancene (ug/L)	0.00008	0.0001	XXX	3.17	4.95	7.93	1/Week	24 Hour Comp
Hexachlorobenzene (ug/L)	0.00007	0.0001	XXX	2.54	3.96	6.34	1/Week	24 Hour Comp
Indeno(1,2,3-cd)Pyrene (ug/L)	0.0008	0.001	XXX	31.70	49.50	79.30	1/Week	24 Hour Comp
n-Nitrosodimethylamine (ug/L)	0.0006	0.0009	XXX	22.20	34.60	55.50	1/Week	24 Hour Comp
PFOA (ng/L)	Report Qrtly Avg	Report Daily Max	XXX	Report Qrtly Avg	Report Daily Max	XXX	1/Quarter	Grab
PFOS (ng/L)	Report Qrtly Avg	Report Daily Max	XXX	Report Qrtly Avg	Report Daily Max	XXX	1/Quarter	Grab
HFPO-DA (ng/L)	Report Qrtly Avg	Report Daily Max	XXX	Report Qrtly Avg	Report Daily Max	XXX	1/Quarter	Grab
PFBS (ng/L)	Report Qrtly Avg	Report Daily Max	XXX	Report Qrtly Avg	Report Daily Max	XXX	1/Quarter	Grab
Total Aluminum	Report Annl Avg	Report Daily Max	XXX	Report Annl Avg	Report Daily Max	XXX	1/Year	24 Hour Comp
Total Iron	Report Annl Avg	Report Daily Max	XXX	Report Annl Avg	Report Daily Max	XXX	1/Year	24 Hour Comp
Total Manganese	Report Annl Avg	Report Daily Max	XXX	Report Annl Avg	Report Daily Max	XXX	1/Year	24 Hour Comp

END of Fact Sheet.

Q_{7-10} Analysis	
Facility:	Function
Outfall:	001

NPDES Permit No.:	PA0231797
RMI at 001:	1.25

Reference Stream Gage Information	
Stream Name	Shamokin Creek
Reference Gage	01554500
Station Name	Shamokin Creek near Shamokin, PA
Gage Drainage Area (sq. mi.)	54.20
Q_{7-10} at gage (cfs)	22.00
Yield Ratio (cfs/mi^2)	0.4059

Q7-10 at 001	
Drainage Area at 001 (sq. mi.)	80.80
Q7-10 at 001 (cfs)	32.797
Q7-10 at 001 (mgd)	21.1973

Table 1. List of U.S. Geological Survey streamgage locations in and near Pennsylvania with updated streamflow statistics.—Continued

[Latitude and Longitude in decimal degrees; mi², square miles]

Streamgage number	Streamgage name	Latitude	Longitude	Drainage area (mi²)	Regulated[1]
01541303	West Branch Susquehanna River at Hyde, Pa.	41.005	-78.457	474	Y
01541308	Bradley Run near Ashville, Pa.	40.509	-78.584	6.77	N
01541500	Clearfield Creek at Dimeling, Pa.	40.972	-78.406	371	Y
01542000	Moshannon Creek at Osceola Mills, Pa.	40.850	-78.268	68.8	N
01542500	WB Susquehanna River at Karthaus, Pa.	41.118	-78.109	1,462	Y
01542810	Waldy Run near Emporium, Pa.	41.579	-78.293	5.24	N
01543000	Driftwood Branch Sinnemahoning Creek at Sterling Run, Pa.	41.413	-78.197	272	N
01543500	Sinnemahoning Creek at Sinnemahoning, Pa.	41.317	-78.103	685	N
01544000	First Fork Sinnemahoning Creek near Sinnemahoning, Pa.	41.402	-78.024	245	Y
01544500	Kettle Creek at Cross Fork, Pa.	41.476	-77.826	136	N
01545000	Kettle Creek near Westport, Pa.	41.320	-77.874	233	Y
01545500	West Branch Susquehanna River at Renovo, Pa.	41.325	-77.751	2,975	Y
01545600	Young Womans Creek near Renovo, Pa.	41.390	-77.691	46.2	N
01546000	North Bald Eagle Creek at Milesburg, Pa.	40.942	-77.794	119	N
01546400	Spring Creek at Houserville, Pa.	40.834	-77.828	58.5	N
01546500	Spring Creek near Axemann, Pa.	40.890	-77.794	87.2	N
01547100	Spring Creek at Milesburg, Pa.	40.932	-77.786	142	N
01547200	Bald Eagle Creek below Spring Creek at Milesburg, Pa.	40.943	-77.786	265	N
01547500	Bald Eagle Creek at Blanchard, Pa.	41.052	-77.604	339	Y
01547700	Marsh Creek at Blanchard, Pa.	41.060	-77.606	44.1	N
01547800	South Fork Beech Creek near Snow Shoe, Pa.	41.024	-77.904	12.2	N
01547950	Beech Creek at Monument, Pa.	41.112	-77.702	152	N
01548005	Bald Eagle Creek near Beech Creek Station, Pa.	41.081	-77.549	562	Y
01548500	Pine Creek at Cedar Run, Pa.	41.522	-77.447	604	N
01549000	Pine Creek near Waterville, Pa.	41.313	-77.379	750	N
01549500	Blockhouse Creek near English Center, Pa.	41.474	-77.231	37.7	N
01549700	Pine Creek below Little Pine Creek near Waterville, Pa.	41.274	-77.324	944	Y
01550000	Lycoming Creek near Trout Run, Pa.	41.418	-77.033	173	N
01551500	WB Susquehanna River at Williamsport, Pa.	41.236	-76.997	5,682	Y
01552000	Loyalsock Creek at Loyalsockville, Pa.	41.325	-76.912	435	N
01552500	Muncy Creek near Sonestown, Pa.	41.357	-76.535	23.8	N
01553130	Sand Spring Run near White Deer, Pa.	41.059	-77.077	4.93	N
01553500	West Branch Susquehanna River at Lewisburg, Pa.	40.968	-76.876	6,847	Y
01553700	Chillisquaque Creek at Washingtonville, Pa.	41.062	-76.680	51.3	N
01554000	Susquehanna River at Sunbury, Pa.	40.835	-76.827	18,300	Y
01554500	Shamokin Creek near Shamokin, Pa.	40.810	-76.584	54.2	N
01555000	Penns Creek at Penns Creek, Pa.	40.867	-77.048	301	N
01555500	East Mahantango Creek near Dalmatia, Pa.	40.611	-76.912	162	N
01556000	Frankstown Branch Juniata River at Williamsburg, Pa.	40.463	-78.200	291	N
01557500	Bald Eagle Creek at Tyrone, Pa.	40.684	-78.234	44.1	N
01558000	Little Juniata River at Spruce Creek, Pa.	40.613	-78.141	220	N
01559000	Juniata River at Huntingdon, Pa.	40.485	-78.019	816	LF
01559500	Standing Stone Creek near Huntingdon, Pa.	40.524	-77.971	128	N
01559700	Sulphur Springs Creek near Manns Choice, Pa.	39.978	-78.619	5.28	N
01560000	Dunning Creek at Belden, Pa.	40.072	-78.493	172	N

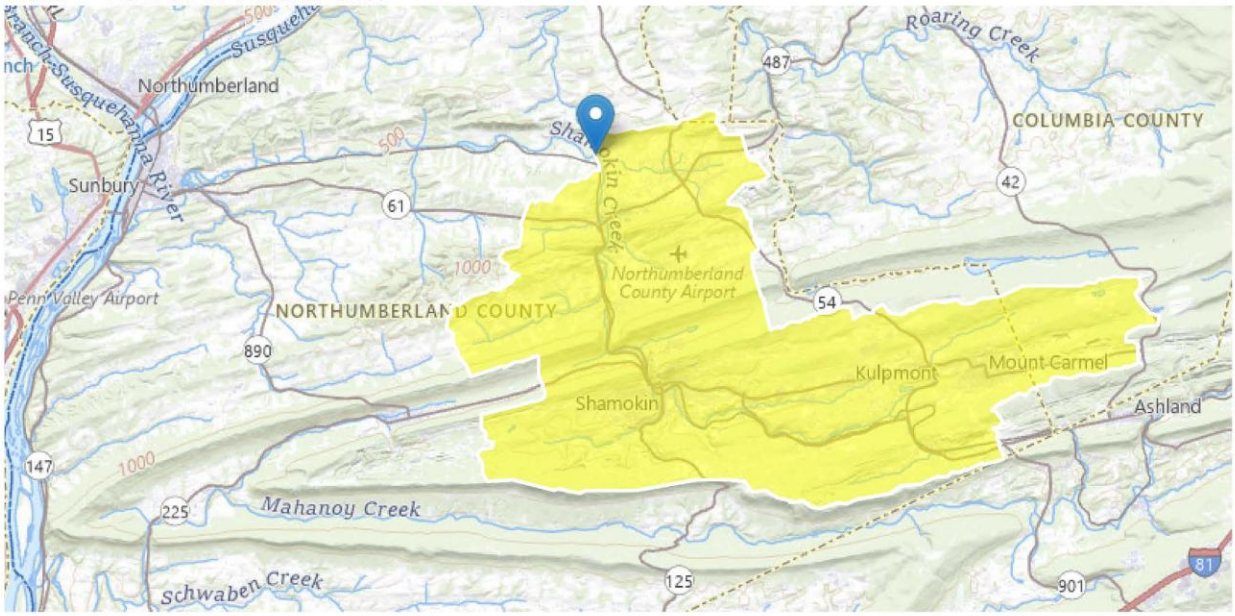
Table 2. Selected low-flow statistics for streamgage locations in and near Pennsylvania.—Continued

[ft^3/s; cubic feet per second; —, statistic not computed; <, less than]

Streamgage number	Period of record used in analysis[1]	Number of years used in analysis	1-day, 10-year (ft^3/s)	7-day, 10-year (ft^3/s)	7-day, 2-year (ft^3/s)	30-day, 10-year (ft^3/s)	30-day, 2-year (ft^3/s)	90-day, 10-year (ft^3/s)
01546000	1912–1934	17	1.8	2.2	6.8	3.7	12.1	11.2
01546400	1986–2008	23	13.5	14.0	19.6	15.4	22.3	18.7
01546500	1942–2008	67	26.8	29.0	41.3	31.2	44.2	33.7
01547100	1969–2008	40	102	105	128	111	133	117
01547200	1957–2008	52	99.4	101	132	106	142	115
01547500	[2]1971–2008	38	28.2	109	151	131	172	153
01547500	[3]1956–1969	14	90.0	94.9	123	98.1	131	105
01547700	1957–2008	52	.5	.6	2.7	1.1	3.9	2.2
01547800	1971–1981	11	1.6	1.8	2.4	2.1	2.9	3.5
01547950	1970–2008	39	12.1	13.6	28.2	17.3	36.4	23.8
01548005	[2]1971–2000	25	142	151	206	178	241	223
01548005	[3]1912–1969	58	105	114	147	125	165	140
01548500	1920–2008	89	21.2	24.2	50.1	33.6	68.6	49.3
01549000	1910–1920	11	26.0	32.9	78.0	46.4	106	89.8
01549500	1942–2008	67	.6	.8	2.5	1.4	3.9	2.6
01549700	1959–2008	50	33.3	37.2	83.8	51.2	117	78.4
01550000	1915–2008	94	6.6	7.6	16.8	11.2	24.6	18.6
01551500	[2]1963–2008	46	520	578	1,020	678	1,330	919
01551500	[3]1901–1961	61	400	439	742	523	943	752
01552000	1927–2008	80	20.5	22.2	49.5	29.2	69.8	49.6
01552500	1942–2008	67	.9	1.2	3.1	1.7	4.4	3.3
01553130	1969–1981	13	1.0	1.1	1.5	1.3	1.8	1.7
01553500	[2]1968–2008	41	760	838	1,440	1,000	1,850	1,470
01553500	[3]1941–1966	26	562	619	880	690	1,090	881
01553700	1981–2008	28	9.1	10.9	15.0	12.6	17.1	15.2
01554000	[2]1981–2008	28	1,830	1,990	3,270	2,320	4,210	3,160
01554000	[3]1939–1979	41	1,560	1,630	2,870	1,880	3,620	2,570
01554500	1941–1993	53	16.2	22.0	31.2	25.9	35.7	31.4
01555000	1931–2008	78	33.5	37.6	58.8	43.4	69.6	54.6
01555500	1931–2008	78	4.9	6.5	18.0	9.4	24.3	16.6
01556000	1918–2008	91	43.3	47.8	66.0	55.1	75.0	63.7
01557500	1946–2008	63	2.8	3.2	6.3	4.2	8.1	5.8
01558000	1940–2008	69	56.3	59.0	79.8	65.7	86.2	73.7
01559000	1943–2008	66	104	177	249	198	279	227
01559500	1931–1958	28	9.3	10.5	15.0	12.4	17.8	15.8
01559700	1963–1978	16	.1	.1	.2	.1	.3	.2
01560000	1941–2008	68	8.5	9.4	15.6	12.0	20.2	16.2
01561000	1932–1958	27	.4	.5	1.6	.8	2.5	1.7
01562000	1913–2008	96	64.1	67.1	106	77.4	122	94.5
01562500	1931–1957	27	1.1	1.6	3.8	2.3	5.4	3.7
01563200	[2]1974–2008	35	—	—	—	112	266	129
01563200	[3]1948–1972	25	10.3	28.2	86.1	64.5	113	95.5
01563500	[2]1974–2008	35	384	415	519	441	580	493
01563500	[3]1939–1972	34	153	242	343	278	399	333
01564500	1940–2008	69	3.6	4.2	10.0	6.2	14.4	10.6

StreamStats Report

Region ID: PA
Workspace ID: PA20250414180515641000
Clicked Point (Latitude, Longitude): 40.87118, -76.58930
Time: 2025-04-14 14:05:48 -0400

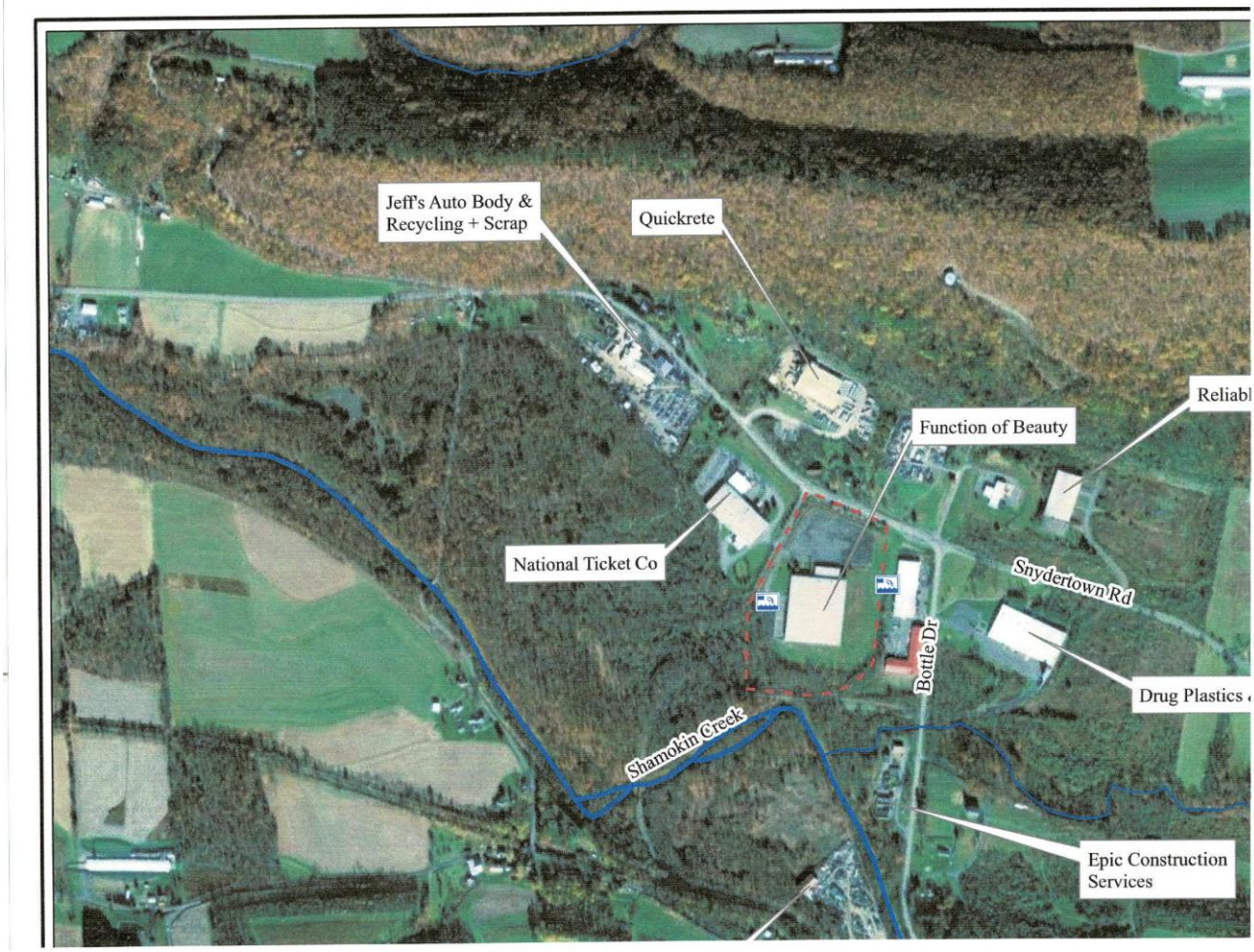


Collapse All

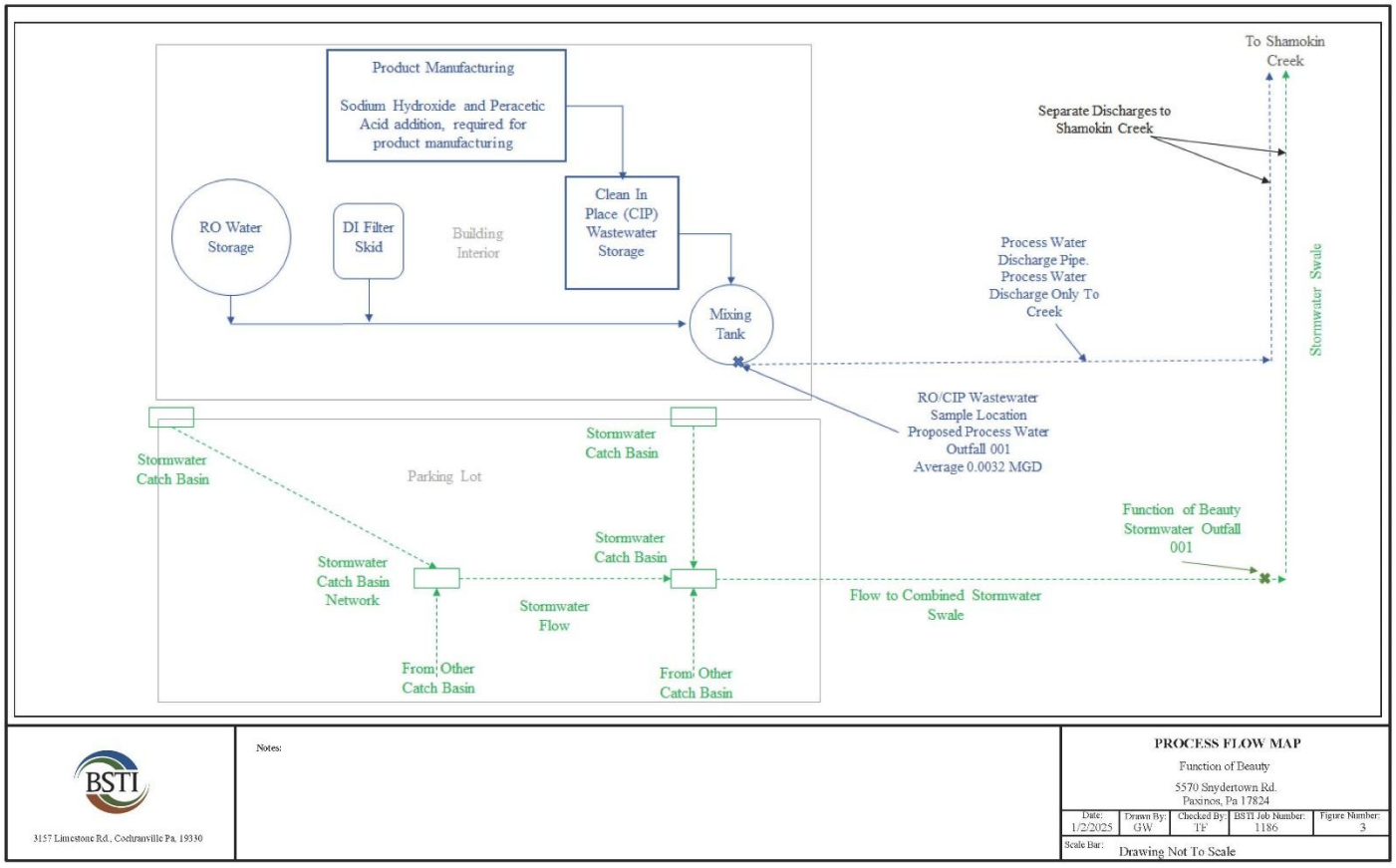
Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	0	percent
DRNAREA	Area that drains to a point on a stream	80.8	square miles
PRECIP	Mean Annual Precipitation	42	inches
ROCKDEP	Depth to rock	4.4	feet
STRDEN	Stream Density -- total length of streams divided by drainage area	1.17	miles per square mile

ATTACHMENT 02



ATTACHMENT 03



ATTACHMENT 04

3800-PM-BCW0008b Rev. 12/2023
Permit Application

Applicant Name:

PRODUCTION DATA FOR EFFLUENT LIMITATION GUIDELINES (ELGs)

Complete this section for each production line with an applicable ELG. See instructions and use additional sheets as necessary.

1. Production line and process description: **Hair Care Products - Batch Manufacturing and Filling**
2. Applicable ELG: 40 CFR: **417** Subpart: **P**
3. Is this production considered a new source? ☐ Yes ☒ No
4. Outfall / IMP No. receiving wastewater: **Proposed to OF001**
5. Units of production measurement for ELG: **Pounds (anhydrous)**
6. Design production capacity: **~111,860 pounds (anhydrous) per week**
7. Complete the table below for the five last years of production. Report production data using the same units of measurement as reported in question 5.

Parameter	Production Years				
	2021	2022	2023	2024	20
Total Annual Production	No Production Filling and Distribution Only	No Production Filling and Distribution Only	1,012,137	909,733	
Max Monthly Production	NA	NA	84,345	75,811	
Month of Max Production	NA	NA	84,345	75,811	
Avg Annual Production	NA	NA	4,217	4,459	
Avg Production Hours/Day	24	16	8	10	
Avg Production Days/Month	20	20	20	17	
Avg Annual Water Usage (MGD)	0.001301	0.000876	0.003972	0.003561	
Avg Annual Wastewater Flow (MGD)	0.001301	0.000876	0.003150	0.002876	

8. Average annual production over the past five years: **960,935** Units: **Pounds (anhydrous)**
9. Anticipated average annual production for the next five years: **1,013,269** Units: **Pounds (anhydrous)**
10. Explain the basis for the anticipated average annual production for the next five years:

    Production for 2025 is expected to be similar to 2024. Beyond 2025, the anticipated production will increase approximately 5% every year.

11. Attach any pertinent information from the applicable ELG in 40 CFR that would allow DEP to appropriately determine technology-based effluent limitations.

ANTI-DEGRADATION

If the applicant is proposing a new or increased discharge to High Quality (HQ) or Exceptional Value (EV) waters, Module 4 (Anti Degradation Module) must be attached to the application. In addition, for HQ waters only, if the analysis concludes that the new or increased discharge will produce a measurable change in water quality, a social or economic justification (SEJ) must be attached if the applicant desires approval for the discharge.

1. Is the Anti-Degradation Module (Module 4) attached to the application? ☐ Yes ☒ No
2. Is a social or economic justification (SEJ) (HQ waters only) attached to the application? ☐ Yes ☒ No

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
06B	18489	SHAMOKIN CREEK

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
11.580	Function	PA0231797	0.003	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			3

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
06B	18489	SHAMOKIN CREEK	**11.580**	526.00	80.80	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.100	0.00	32.80	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Function	PA0231797	0.0032	0.0032	0.0032	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
06B	18489	SHAMOKIN CREEK	**9.680**	503.00	83.80	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.100	0.00	34.01	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
06B	18489	SHAMOKIN CREEK

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
11.580	32.80	0.00	32.80	.005	0.00229	.855	72.5	84.79	0.53	0.219	20.00	7.00
Q1-10 Flow												
11.580	20.99	0.00	20.99	.005	0.00229	NA	NA	NA	0.41	0.282	20.00	7.00
Q30-10 Flow												
11.580	44.60	0.00	44.60	.005	0.00229	NA	NA	NA	0.63	0.185	20.00	7.00

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	6		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
06B	18489	SHAMOKIN CREEK

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
11.580	Function	16.76	50	16.76	50	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
11.580	Function	1.89	25	1.89	25	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
11.58	Function	25	25	25	25	3	3	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
06B	18489	SHAMOKIN CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
11.580	0.003	20.001	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
72.498	0.855	84.787	0.529
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.00	0.002	0.00	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.242	5.659	Tsivoglou	6
Reach Travel Time (days)			
0.219			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.022	2.00	0.00	8.24
0.044	2.00	0.00	8.24
0.066	2.00	0.00	8.24
0.088	2.00	0.00	8.24
0.110	2.00	0.00	8.24
0.132	2.00	0.00	8.24
0.154	2.00	0.00	8.24
0.176	2.00	0.00	8.24
0.197	2.00	0.00	8.24
0.219	2.00	0.00	8.24