Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0086967**
Facility Type	**Industrial**	APS ID	**277167**
Major / Minor	**Minor**	Authorization ID	**1471437**

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

Applicant and Facility Information

Applicant Name	**Myerstown Borough Water Authority**	Facility Name	**Myerstown Water Authority System**
Applicant Address	601 Stracks Dam Road	Facility Address	601 Stracks Dam Road
	Myerstown, PA 17067		Myerstown, PA 17067-2169
Applicant Contact	Casey Walborn	Facility Contact	Casey Walborn
Applicant Phone	(717) 866-9301	Facility Phone	(717) 866-9301
Client ID	63560	Site ID	262336
SIC Code	4952	Municipality	Jackson Township
SIC Description	Trans. & Utilities - Sewerage Systems	County	Lebanon
Date Application Received	January 29, 2024	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: NPDES Renewal.

Summary of Review

1.0 General Discussion

This factsheet supports the renewal of an existing NPDES for Myerstown water treatment facility. The facility was permitted to discharge emergency overflows from a clear well and backwash holding basin. The water treatment facility filters well water for distribution to the Borough of Myerstown and portions of Jackson Township. It has a design flow of up to 1100 gpm (1.6 MGD) and has a public water supply permit issued by PADEP, permit number 3895501. The water treatment system consists of three modular water treatment units, which provide contact clarification and filtration. A polymer is added to the water prior to treatment to aid coagulation. Chlorine is added to prevent biological growth on the filter units. The treatment facility has the capability to add alum as a coagulant aid and soda ash for pH adjustment.

As part of the treatment process, the filters require periodic backwashing to clean the filter media. The filter backwash water is discharged to an underground holding tank and is recycled through the treatment plant. The backwash holding tank has an overflow line which can discharge to outfall 001 on UNT to Tulpehocken Creek during emergency overflow conditions. In addition to the backwash holding tank, the plant also has an underground clear well for storing treated water. The clear well also has an overflow line which also discharges to the UNT during emergency conditions. Any discharge to the UNT which is classified for cold water fishes (CWF) will vary depending on the emergency triggering the discharge. The facility has not discharged since the original permit was issued on

Approve	Deny	Signatures	Date
X		*J. Pascal Kwedza* J. Pascal Kwedza, P.E. / Environmental Engineer	December 2, 2024
X		*Maria D. Bebenek for* Daniel W. Martin, P.E. / Environmental Engineer Manager	December 6, 2024
X		*Maria D. Bebenek* Maria D. Bebenek, P.E./ Program Manager	December 6, 2024

Summary of Review

September 9, 1995. Backwash solids which settle out of the backwash water in the holding tank, is hauled out to Myerstown Borough STP for further treatment.

The existing NPDES permit was issued on May 30, 2019 with an effective date of June 1, 2019 and expiration date of May 31, 2024. The applicant submitted permit renewal application to the Department and currently operating under the terms and conditions in the existing permit pending Department action on the renewal application. A topographic map showing the discharge location is presented in attachment A

1.1 Public Participation

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

1.2 Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	N/A
Latitude	40º 23' 10.96"	Longitude	-76º 20' 32.31"
Quad Name		Quad Code	
Wastewater Description:	IW Process Effluent without ELG		
Receiving Waters	Unnamed Tributary to Tulpehocken Creek (CWF)	Stream Code	01974
NHD Com ID	25963010	RMI	1.82
Drainage Area	0.15	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	USGS Gage Station
Elevation (ft)		Slope (ft/ft)	
Watershed No.	3-C	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Siltation, Siltation		
Source(s) of Impairment	Agriculture, Erosion from Derelict Land		
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	Western Berks Water Authority		
PWS Waters	Tulpehocken Creek	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	< 34

Changes Since Last Permit Issuance: None

1.2.1 Water Supply Intake

The nearest downstream water supply intake is located approximately 34 miles downstream from the discharge. The Western Berks Water Authority located in Lower Heidelberg Township on the Tulpehocken Creek owns it. No impact from this discharge is expected.

1.3 Existing Effluent Limitations and Monitoring Requirements

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

Outfall 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		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/discharge	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/discharge	Grab
TRC	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
Total Manganese	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab

2.0 Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0
Latitude 40º 23' 15.26" **Longitude** -76º 20' 34.44"
Wastewater Description: IW Process Effluent without ELG

2.1 Basis for Effluent Limitations

In general, the Clean Water Act (CWA) 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.

2.1.1 Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Technology-based (BAT) effluent limits for water treatment plant wastewater discharges are presented in the Department's June 1989 Guidance document entitled, “Technology Based Controls for Discharges from Water Treatment Plants” as follows:

Parameter	Monthly Avg mg/l	Daily Max. mg/l
Total Suspended Solids (TSS)	30	60
Aluminum	4	8
Iron	2	4
Manganese	1	2
pH	6 - 9 S.U at all times	

Comments: Monitoring of the Technology–based (BAT) parameters for water treatment plant discharges presented in the table above required in the existing permit and pH limit will continue in the current permit renewal. Monitoring of the BAT parameters is required in the permit to ensure technology-based controls for the discharge are functioning well.

2.2 Water Quality-Based Limitations

Since the facility has not had a discharge since the original permit was issued on September 9, 1995, there is no effluent data to conduct reasonable potential analysis for the discharge to support a water-based quality effluent limit. The permittee sampled the storage tank to provide pollutant characteristics if effluent discharge become necessary. The data does not show water quality would be adversely impacted if there was a discharge. The recommended technology limit for pH limit between 6 - 9 S.U, monitoring of flow, TRC and the BAT parameters (TSS, Total Aluminum, Total Iron and Total Manganese) are adequate and be continued in the permit.

3.0 Other Requirements

3.1 Anti-Backsliding

Not applicable to this discharge

3.2 Antidegradation (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 discharge goes to High Quality Waters but no negative impact from this discharge is expected. No Exceptional Value Waters are impacted by this discharge.

3.3 Class A Wild Trout Fisheries:

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

3.4 303d Listed stream:

The discharge is located on a 303d listed stream segment. It is impaired for aquatic life and recreation use due to siltation and pathogens. The cause is agriculture and from erosion from Derelict Land. This discharge does not contribute to the impairment; therefore, no action is warranted at this time.

3.5 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).

3.6 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.

4.0 Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 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		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/discharge	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/discharge	Grab
TRC	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab
Total Manganese	XXX	XXX	XXX	XXX	Report	XXX	1/discharge	Grab

Compliance Sampling Location: Outfall 001

5.0 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, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☒	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☒	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☒	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 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, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 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, 386-2000-010, 3/1999.
☒	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☒	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: Establishing effluent limitations for individual industrial permit.
☐	Other:

6. Attachment

A. Topographical Map