Pennsylvania Department of Environmental Protection

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0010987**
Facility Type	**Non-Municipal**	APS ID	**616896**
Major / Minor	**Minor**	Authorization ID	**1472928**

Applicant and Facility Information

Applicant Name	**Tobyhanna Army Depot**	Facility Name	**Tobyhanna Army Depot WWTP**
Applicant Address	11 Hap Arnold Boulevard, Building 41	Facility Address	11 Hap Arnold Boulevard, Building 41
	Tobyhanna, PA 18466		Tobyhanna, PA 18466
Applicant Contact	Paula Mesaris	Facility Contact	Paula Mesaris
Applicant Phone	(570) 615-7090	Facility Phone	(570) 615-7090
Client ID	62948	Site ID	683
Ch 94 Load Status	N/A	Municipality	Coolbaugh Township
Connection Status	N/A	County	Monroe
Date Application Received	February 1, 2024	EPA Waived?	Yes
Date Application Accepted	February 1, 2024	If No, Reason	-

Purpose of Application: Renewal of NPDES permit.

Summary of Review

The applicant is requesting renewal of an NPDES permit to discharge up to 0.802 MGD of treated sewage and process wastewater into Hummler Run, a High Quality, Cold-Water and Migratory Fish (HQ-CWF, MF) receiving stream in State Water Plan Basin 2-A (Upper Lehigh River). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use. This discharge is not expected to affect public water supplies.

Process wastewater is generated by printed circuit board manufacturing and electroplating processes and is treated before being discharged to the sanitary sewer for further treatment at the sewage treatment plant. The pretreatment discharge is sampled at Internal Monitoring Point (IMP) 101.

Limitations for pH, $CBOD_5$, Total Suspended Solids (TSS), and Fecal Coliform are technology-based and carried over from the previous permit. Limitations for Dissolved Oxygen (DO), Ammonia-N, Total Phosphorous, and Nitrate-Nitrite as N are water quality-based and carried over from the previous permit. Monthly monitoring and reporting requirements for Total Nitrogen and Total Kjeldahl Nitrogen are carried over in this renewal. As per current DEP guidance, quarterly monitoring/reporting requirements are included in the permit for E. Coli.

The permit does not contain Total Residual Chlorine (TRC) monthly average limitations since the WWTP utilizes ultraviolet (UV) radiation for disinfection. In the event the facility uses chlorine for cleaning purposes or for backup disinfection, the IMAX water quality-based limitation of 0.04 mg/L is continued in this permit renewal and is to be sampled "daily when discharging" (see Part C.I.E). The following template Part C condition is added to the permit for UV system monitoring:

The permittee shall report operation of the ultraviolet (UV) disinfection system on a daily basis using the Daily Effluent Monitoring Form (3800-FM-BCW0435) and the parameter named "UV Functional" The permittee shall report values of "1" for Yes (i.e., the UV system is functional) and "< 1" for No (i.e., the UV system is not functional). The UV system shall be

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	November 21, 2024
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	12-2-24

Summary of Review

considered functional when all components that are necessary for disinfection to achieve effluent limitations in Part A of this permit are operating properly.

The previously approved DRBC docket No. D-2009-041 CP-4 required the addition of 85% minimum $CBOD_5$ percent removal with an influent $CBOD_5$ minimum monitoring frequency at the same minimum monitoring frequency as effluent $CBOD_5$. Those requirements are continued in this renewal.

A previous DRBC docket required a Total Dissolved Solids (TDS) limit of 1,000 mg/L, which is the Delaware River Basin Commission's basin-wide TDS effluent limit. Before the previous NPDES permit renewal, the permittee notified the Commission they have high levels of TDS in their onsite wells and their industrial user is also a source of TDS. The permittee performed evaluations of potential new groundwater sources onsite, and it was expected that by utilizing other nearby groundwater sources, the well water TDS concentrations would decrease. The previously issued NPDES permit established an interim TDS effluent limit of 1,500 mg/L until the new proposed groundwater source wells become active. Thereafter, the Commission's basin-wide TDS effluent limit of 1,000 mg/L was to take effect. DEP did not receive notification of completion of the installation of the new groundwater wells during the previous permit term (or during this renewal), however, the 1,000 mg/L limitation is included in the latest DRBC Docket No. D-2009-041 CP-5 (issued September 5, 2024) and thus included in this NPDES permit renewal.

A Total Maximum Daily Load (TMDL) was approved March 27, 2009 for the Lehigh River Watershed. The TMDL addresses metals (iron, manganese, and aluminum) and depressed pH associated with acid mine drainage (AMD). There are no approved Waste Load Allocations (WLAs) for this facility. The waste flow from the industrial contributor to this facility is pretreated before reaching the WWTP and the TMDL metals of concern aren't expected to be present in significant quantities in the discharge.

The discharge was modeled using WQM 7.0, the TRC calculation spreadsheet, and the Toxics Management Spreadsheet (TMS). Since there are no representative stream gages on the stream or in the vicinity of the outfall, the state-wide default low flow yield (LFY) of 0.1 cfs/mi^2 was used to model the discharge. RMI values were obtained using the Department's eMapPA, drainage areas were delineated using USGS's StreamStats interactive map, and elevations were obtained using the elevation profile tool on StreamStats.

WQM 7.0 and the TRC calculation spreadsheet did not recommend more stringent limitations for any pollutants. The TMS recommended limitations for Total Copper and monitoring requirements for Total Zinc. These recommendations are based on one sample result that was required to be included in the NPDES renewal application. Quarterly monitoring/reporting requirements for Total Copper and Total Zinc are included in this renewal to gain more data for these parameters.

The limitations for the pretreatment facility (IMP 101) have been carried over from the previous permit and are summarized at the end of the fact sheet. The limits at IMP 101 are the metal finishing BAT limits from 40 CFR Part 433.14.

The facility discharges stormwater through 6 outfalls to tributary 4618 to the Lehigh River (Outfall 002), Hummler Run (Outfalls 003, 004 & 005), and Cross Keys Run (Outfalls 006 & 007). Tributary 4618 and Cross Keys Run are designated as Exceptional Value and migratory fish receiving streams. Semiannual monitoring requirements are carried over from the previous permit and Outfall 003 continues to be the representative outfall. As per current DEP guidance, semiannual monitoring/reporting requirements for Total Phosphorus and Total Nitrogen are added to the permit for representative Outfall 003. The template Part C condition titled Requirements Applicable to Stormwater Outfalls is carried over in this renewal.

All monitoring frequencies for parameters with limitations are consistent with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (Document No. 362-0400-001).

Sludge use and disposal description and location(s): The permit renewal application indicates 48.58 dry tons of sludge was hauled to Keystone Sanitary Landfill during the previous year.

WQM Modeling.pdf TRC Calculation.pdf TMS PA0010987.pdf Watershed Information.pdf 2009-041 CP-5.pdf Lehigh River TMDL.pdf

Summary of Review

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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.802
Latitude	41º 11' 5.87"	Longitude	-75º 25' 42.12"
Quad Name	Tobyhanna	Quad Code	0942
Wastewater Description:	Sewage Effluent		
Receiving Waters	Hummler Run (HQ-CWF, MF)	Stream Code	4470
NHD Com ID	26279949	RMI	1.88
Drainage Area	0.39 mi^2	Yield (cfs/mi^2)	0.1
Q_{7-10} Flow (cfs)	0.039	Q_{7-10} Basis	State-wide default
Elevation (ft)	1,922	Slope (ft/ft)	0.009
Watershed No.	2-A	Chapter 93 Class.	HQ-CWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	-		
Source(s) of Impairment	-		
TMDL Status	Final	Name	Lehigh River TMDL
Nearest Downstream Public Water Supply Intake	Hazelton City Authority		
PWS Waters	Lehigh River	Flow at Intake (cfs)	-
PWS RMI	62.9	Distance from Outfall (mi)	~ 43

Treatment Facility Summary

Treatment Facility Name: Tobyhanna Army Depot Sewage Treatment Plant

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Sequencing Batch Reactor	Ultraviolet	0.070 (2023)

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.802	-	Not Overloaded	Holding Tank/Press	Hauled

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Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.802
Latitude 41º 11' 5.87" **Longitude** -75º 25' 42.12"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

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

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25.0	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	50.0	IMAX	-	-
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60.0	IMAX	-	-
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
	10,000 / 100 ml	IMAX	-	92a.47(a)(5)

Water Quality-Based Limitations

The following limitations were determined through water quality modeling or by DRBC requirements:

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen Nov 1 - Apr 30	4.3	Average Monthly	2019 WQM 7.0
	8.4	IMAX	
Ammonia-Nitrogen May 1 - Oct 31	1.4	Average Monthly	
	2.8	IMAX	
Total Residual Chlorine	0.04	IMAX	TRC Calculation Spreadsheet
CBOD5 Minimum % Removal	85%	Average Monthly	DRBC Docket D-2009-041 CP-4
Total Dissolved Solids	1,000	Average Monthly	
Dissolved Oxygen	7.0	Minimum	Previous Modeling
Nitrate-Nitrite as N	10.0	Average Monthly	
	20.0	IMAX	
Total Phosphorous	1.0	Average Monthly	
	2.0	IMAX	

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	November 21, 2024
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	12-2-24

IMP 101 Limitations

The following limitations are BAT limitations from 40 CFR 433 (Metal Finishing Point Source Category)

Parameter	Limit (mg/l)	SBC
pH	6.0 – 9.0 S.U.	Min – Max
Total Cadmium	0.26	Average Monthly
	0.69	Daily Maximum
Total Chromium	1.71	Average Monthly
	2.77	Daily Maximum
Total Copper	2.07	Average Monthly
	3.38	Daily Maximum
Total Nickel	2.38	Average Monthly
	3.98	Daily Maximum
Total Silver	0.24	Average Monthly
	0.43	Daily Maximum
Total Cyanide	0.65	Annual Average
	1.20	Daily Maximum
Total Toxic Organics	2.13	Daily Maximum

Anti-Backsliding

No limitations were removed from the permit or made less stringent.