Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0046671**
Facility Type	**Non-Municipal**	APS ID	**1132108**
Major / Minor	**Minor**	Authorization ID	**1517770**

Applicant and Facility Information

Applicant Name	**United Steel Workers of America**	Facility Name	**Linden Hall STP**
Applicant Address	5 Gateway Center	Facility Address	432 Linden Hall Road
	Pittsburgh, PA 15222		Dawson, PA 15428-1046
Applicant Contact	Heather Albert	Facility Contact	Thomas Bibby
Applicant Phone	(724) 529-7543	Facility Phone	(724) 366-5184
Client ID	45093	Site ID	259220
Ch 94 Load Status	Not Overloaded	Municipality	Lower Tyrone Township
Connection Status		County	Fayette
Date Application Received	September 12, 2024	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: Renewal

Summary of Review

The permittee applied to renew PA0046671, which was last issued on 9/4/2019. The permit expired on 9/30/2024. The plant discharges to a dry UNT to Youghiogheny River (WWF) with a flow rate of 0.035 MGD. The existing treatment process consists of Comminutor Tank, Digester, Aeration Tank, Clarifier Tank, and Chlorine Contact Tank. The sewage facility serves the Linden Hall Country Club Resort. The sewage sludge / biosolids are hauled off to another STP.

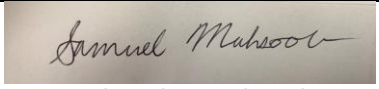
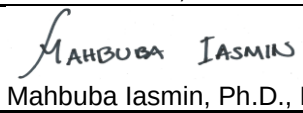
The facility operator reported that the facility discharges to a stream that is typically dry most of the year. More stringent limits for dry streams only apply to new and expanding discharges. However, a Part C condition was added in the NPDES permit that requires additional treatment if the discharge creates a nuisance during critical periods.

Act 14 Notifications were provided to the township and county on 9/5/24 and 9/6/24, respectively.

The client has an open violation for not submitting their NPDES permit on time.

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*

Approve	Return	Deny	Signatures	Date
x			 Sam Mahsoob, EIT / Environmental Engineering Trainee	Select Date
x			 Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineer Manager	4/21/2025

Summary of Review
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)	.035
Latitude	40º 3' 18"	Longitude	-79º 41' 56"
Quad Name	Dawson	Quad Code	40079A6
Wastewater Description:	Sewage Effluent		
Receiving Waters	Dry UNT to Youghiogheny River (WWF)	Stream Code	37456
NHD Com ID	69917285	RMI	35.21
Drainage Area (sq mi)	1390	Yield (cfs/mi^2)	.0627
Q_{7-10} Flow (cfs)	87.2	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	812	Slope (ft/ft)	.001
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Not Assessed		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

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

Nearest Downstream Public Water Supply Intake	WEST CNTY MUNI AUTH-MCKEESPORT PWS ID 5020025		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	1280 (USGS Stream Gage PA-03083500)
PWS RMI	1.4	Distance from Outfall (mi)	33.8

Treatment Facility Summary

Treatment Facility Name: Linden Hall - STP

WQM Permit No.	Issuance Date
2677401 A-1	6/4/2018
2677401	3/31/1977

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Chlorine With Dechlorination	.035

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
		Not Overloaded	Dewatering	Other WWTP

Changes Since Last Permit Issuance:

Other Comments:

Compliance History

Other Comments:

Compliance History

DMR Data for Outfall 001 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
Flow (MGD) Average Monthly	0.001	0.002	0.001	0.002	0.006	0.008	0.008	0.004	0.006	0.012	0.011	0.004
pH (S.U.) Instantaneous Minimum	6.9	6.7	7.0	6.8	7.0	7.0	7.0	7.1	7.0	7.1	7.0	7.0
pH (S.U.) Instantaneous Maximum	7.0	7.1	7.0	6.9	7.1	7.1	7.0	7.2	7.0	7.2	7.1	7.1
DO (mg/L) Instantaneous Minimum	6.3	6.3	6.4	6.3	6.1	6.8	6.3	6.5	6.4	6.4	6.6	6.1
TRC (mg/L) Average Monthly	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.16	< 0.01	< 0.01	< 0.01	< 0.01
TRC (mg/L) Instantaneous Maximum	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.25	< 0.01	< 0.01	< 0.01	< 0.01
CBOD5 (mg/L) Average Monthly	2.65	2.25	< 2.0	< 2.0	2.7	4.55	2.7	< 2.0	2.15	4.6	2.35	2.5
CBOD5 (mg/L) Instantaneous Maximum	3.3	4.3	< 2.0	< 2.0	3.4	7.1	3.2	< 2.0	2.3	4.7	2.5	3.0
TSS (mg/L) Average Monthly	29.0	28.0	19.5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7.5	7.5	6.5
TSS (mg/L) Instantaneous Maximum	50.0	32.0	32.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	10.0	10.0	8.0
Fecal Coliform (No./100 ml) Geometric Mean	2	9	2	3	13	9	11	19	2	15	2	2
Fecal Coliform (No./100 ml) Instantaneous Maximum	2	73	4	8	83	83	24	184	2	32	3	2
Total Nitrogen (mg/L) Daily Maximum			40.15									
Ammonia (mg/L) Average Monthly	0.3	< 0.1	0.15	0.3	0.2	1.15	0.25	0.3	< 0.1	0.15	< 0.1	0.15

Ammonia (mg/L) Instantaneous Maximum	0.5	0.1	0.2	0.3	0.2	2.1	0.3	0.4	0.1	0.2	< 0.1	0.2
Total Phosphorus (mg/L) Daily Maximum			8.2									

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .035
Latitude 40º 3' 18" **Longitude** -79º 41' 56"
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	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
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 S.U.	Min – Max	133.102(c)	95.2(1)
Total Nitrogen	Report	Average Monthly	-	92a.61(7)
Total Phosphorus	Report	Average Monthly	-	92a.61(8)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	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)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
E. Coli (No./100 ml)	-	Report		93a.61(11)(12)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
Total Residual Chlorine	1.6	IMAX	-	92a.47-48(3)(4)
Ammonia-Nitrogen	25	Average Monthly	-	BPJ (5)
Ammonia-Nitrogen	50	IMAX	-	BPJ (5)
Dissolved Oxygen	4.0	IMIN	-	BPJ (6)

Comments: The limits for CBOD5, TSS, pH, Total Nitrogen, Total Phosphorous, Fecal Coliform, and Dissolved Oxygen will be reimposed from the previous permit. Reporting for E. Coli will be imposed in this permit.

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen	25	Average Monthly	WQM 7.0
Ammonia-Nitrogen	50	IMAX	WQM 7.0
Dissolved Oxygen	4	IMIN	WQM 7.0
Total Residual Chlorine	0.178	Average Monthly	TRC_Calc
Total Residual Chlorine	0.583	IMAX	TRC_Calc

Comments: The Ammonia-Nitrogen average monthly limit and Dissolved Oxygen IMIN of 5 mg/L will be reimposed from the previous permit due to anti-backsliding regulation requirements. WQM 7.0 recommended an IMAX limit of 50 mg/L for Ammonia-Nitrogen. TRC_Calc recommended an average monthly limit of 0.178 mg/L and IMAX of 0.583 mg/L.

E. Coli

Sewage discharges will include monitoring, at a minimum, for *E. Coli*, in new and reissued permits, with a monitoring frequency of 1/year for design flows of 0.002 through 0.05 MGD.

(*Note 12 SOP-Establishing Effluent Limitations for Individual Sewage Permits Final November 9, 2012, Revised February 5, 2024, Version 2.0.* and *25 PA Code 92a.61(b).)*

Nutrient Monitoring

Nutrient monitoring is required by the SOP for Effluent Limitations for Individual Sewage Permits. Monitoring is included to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream(s). The receiving stream is not listed as impaired for nutrients, therefore at the discretion of the application manager, a monitoring frequency less than the equivalent of conventional pollutants in Table 6-3 of the Permit Writer's Manual has been selected.

(*Section I.A, Note 7 & 8, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised March 24, 2021, Version 1.9* and *25 PA Code 92a.61(b)*.)

Chlorine Disinfection

Disinfection at this facility is provided by tablet chlorination. Per the SOP for effluent limitations and the recommendations from the TRC_Calc Model (See Attachment 1), a monthly limit of 0.178 mg/L and an instantaneous maximum of .583 mg/L is established. According to the facility's electronic data monitoring reports for the past five years, the facility can generally meet the new limits. No compliance schedule is necessary.

(*Section I.A, Note 3, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised March 24, 2021, Version 1.9* and *25 PA Code 92a.61(b)*.)

Additional Considerations

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation. Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

(40 CFR 122.44 (l)(2) Establishing limitations, standards, and other permit conditions., 40 CFR Ch. I (7-1-21 Edition))

No permits limits have been made less stringent in the renewal draft permit.

Effluent Multipliers

Section 2.C of the Permit Writers Manual contains the procedure for converting average monthly effluent limitations to average weekly, maximum daily, and instantaneous maximum effluent limitations. The average monthly limit is multiplied according to the following chart:

Discharge Solution	Parameters	Average Weekly	Maximum Daily	Instantaneous Maximum Multiplier
Sewage	All	1.5		2.0
Industrial	All		2.0	2.5*

(Department Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits, Updated June 28, 2023 (Document No. 362-0400-001))

Rounding Off

Section 5 C.2. of the Permit Writers Manual contains general guidelines for rounding conventional and toxic pollutants, with instructions to round down to the nearest decimal place indicated.

General Magnitude	Conventional Pollutants	Toxic Pollutants
<0.01	to nearest 0.001	to nearest 0.001
0.01 - 0.1	to nearest 0.01	to nearest 0.01
0.1 - 1.0	to nearest 0.1	to nearest 0.01
1.0 - 10.0	to nearest 0.5	to nearest 0.01
10.0 - 60.0	to nearest 1.0	to nearest 0.01
60.0 or greater	to nearest 5.0	to nearest 0.10

(Department Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits, Updated June 28, 2023 (Document No. 362-0400-001))

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	Maximum	Instant. Maximum		
Flow (MGD)	0.035	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.178	XXX	0.583	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	25	XXX	50	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachments 4&5)
☐	TRC Model Spreadsheet (see Attachment 1)
☐	SOP: Establishing Effluent Limitations for Individual Sewage Permits, Individual Sewage
☐	Other: USGS Stream Stats (Attachments 2&3) and Stream Gage Data
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers.

Attachment 1 – TRC Calc

Attachment 2 – USGS StreamStats Upstream Report

Attachment 3 – USGS StreamStats Downstream Report

Attachment 4 – WQM 7.0 Summer Model

Attachment 5 – WQM 7.0 Winter Model