Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0084395**
Facility Type	**Industrial**	APS ID	**275998**
Major / Minor	**Minor**	Authorization ID	**1500853**

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

Applicant and Facility Information

Applicant Name	**PA Department of Corrections**	Facility Name	**State Correctional Institution at Camp Hill**
Applicant Address	2500 Lisburn Road PO Box 8837	Facility Address	2500 Lisburn Road
	Camp Hill, PA 17011-8005		Camp Hill, PA 17011-8005
Applicant Contact	Michael Gourley	Facility Contact	Michael Gourley
Applicant Phone	(717) 737-4531	Facility Phone	(717) 737-4531
Client ID	43607	Site ID	453669
SIC Code	9223	Municipality	Lower Allen Township
SIC Description	Public Admin. - Correctional Institutions	County	Cumberland
Date Application Received	September 24, 2024	EPA Waived?	Yes
Date Application Accepted	October 9, 2024	If No, Reason	
Purpose of Application	NPDES Renewal..		

Summary of Review

PA Department of Corrections (DOC) has applied to the PA Department of Environmental Protection (DEP) for reissuance of its NPDES permit. The permit was last reissued on June 8, 2020 and became effective on July 1, 2020. The permit will expire on June 30, 2025.

Based on the review, it is recommended that the permit be drafted.

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.

Approve	Deny	Signatures	Date
X		*Jinsu Kim* Jinsu Kim / Environmental Engineering Specialist	June 16, 2025
x		*Maria D. Bebenek* for Daniel W. Martin, P.E. / Environmental Engineer Manager	July 1, 2025
x		*Maria D. Bebenek* Maria D. Bebenek, P.E. / Program Manager	July 1, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.05
Latitude	40º 13' 15.00"	Longitude	-76º 55' 39.00"
Quad Name	Lemoyne	Quad Code	1730
Wastewater Description:	Water Treatment Effluent		
Receiving Waters	Cedar Run (CWF, MF)	Stream Code	63604
NHD Com ID	133783548	RMI	1.92
Drainage Area	6.25 sq.mi.	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	2.63	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	7-E	Chapter 93 Class.	CWF, MF
Existing Use	None	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	Siltation, Nutrients, Pathogens		
Source(s) of Impairment	Natural Sources, Source Unknown, Urban Runoff/Storm Sewers		
TMDL Status	Pending	Name	N/A
Nearest Downstream Public Water Supply Intake	PA American – West Short Regional		
PWS Waters	Yellow Breeches Creek	Flow at Intake (cfs)	68.3
PWS RMI	0.35	Distance from Outfall (mi)	5.5

Drainage Area
The discharge is to Cedar Run at RM 1.92. A drainage area upstream of the point of discharge is estimated to be 6.25 sq.mi. using USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow
USGS StreamStats produced a Q7-10 flow of 2.63 cfs at the point of discharge.

Cedar Run
Under 25 Pa Code §93.9o, Cedar Run is a tributary of Yellow Breeches Creek and is designated as cold water and migratory fishes. Yellow Breeches Creek at the confluence with Cedar Run is also designated as cold water and migratory fishes. No special protection water is therefore impacted by this discharge. DEP's latest integrated water quality report prepared in 2024 indicates that Cedar Run is impaired for nutrients as a result of stormwater runoff from urbanized areas and unknown source. The report also indicates that the stream is impaired for siltation as a result of natural sources. A development of a Total Maximum Daily Load (TMDL) is pending at this time as the TMDL is in fact required to be developed to address this impairment.

Public Water Supply Intake
The fact sheet developed for the last permit renewal indicates that the nearest downstream public water supply intake is PA American Water Co. located on Yellow Breeches Creek, approximately 5.5 miles from the discharge. Given the nature and quantity, the discharge is not expected to significantly impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: State Correctional Institution at Camp Hill				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Industrial	Primary Treatment	Sedimentation	No Disinfection	0.031
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.05	N/A	Not Overloaded	N/A	N/A

DOC currently utilizes a water treatment system for the correctional facility located in Lower Allen Township Cumberland County. The raw water source is Cedar Run which is withdrawn via two (2) pumps at a maximum rate of 530 GPM. A typical water production is between 0.5 to 0.65 MGD with the maximum design capacity of 0.764 MGD, according to the application. The discharge of filter backwash as well as settled solids from the water treatment system is to one of two (2) existing settling lagoons. The discharge occurs continuously for 2 hours per day at an average rate of 0.031 MGD with the maximum of 0.04 MGD. The design flow of 0.05 MGD has been consistently considered by DEP.

Compliance History	
Summary of DMRs:	A summary of past 12-month DMR data is presented on the next page.
Summary of Inspections:	11/9/2022: DEP conducted a routine inspection and no issues were found at the time of inspection.
Other Comments:	Since the last permit reissuance, the facility had two (2) violations; one in January 2024 (effluent violation for Total Manganese) and one in August 2024 (late DMR submission). DEP's database shows that there is no open violation identified by Clean Water Program but some open violations identified by Air Quality and Safe Drinking Water Program.

Effluent Data

DMR Data for Outfall 001 (from May 1, 2024 to April 30, 2025)

Parameter	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24
Flow (MGD) Average Monthly	0.021		0.032	0.032	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
Flow (MGD) Daily Maximum	0.028		0.025	0.032	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.030
pH (S.U.) Instantaneous Minimum	7.1		7.4	7.4	7.2	7.3	7.3	7.2	7.1	7.2	7.1	7.1
pH (S.U.) Instantaneous Maximum	7.8		7.9	7.9	7.8	8.0	7.9	7.6	7.6	7.8	7.8	7.7
TRC (mg/L) Average Monthly	0.25		0.37	0.40	0.46	0.23	0.011	0.13	0.07	0.08	0.1	0.11
TRC (mg/L) Instantaneous Maximum	0.88		0.59	0.66	0.61	0.46	0.024	0.35	0.13	0.25	0.27	0.26
TSS (mg/L) Average Monthly	< 5		5	< 5	< 5	5	< 5	6	7	5	< 5	13
TSS (mg/L) Daily Maximum	< 5		5	< 5.0	< 5	5.0	< 5	6	7	5	< 5	20
Total Copper (mg/L) Average Monthly	< 0.005		0.0053	0.017	< 0.005	0.005	< 0.005	0.0053	< 0.005	< 0.005	0.0069	0.005
Total Copper (mg/L) Daily Maximum	0.005		0.0056	0.028	< 0.005	0.005	< 0.005	0.0055	0.005	< 0.005	0.008	0.005
Total Iron (mg/L) Average Monthly	0.23		0.30	0.1	0.41	0.36	0.27	0.24	0.33	0.46	0.24	0.76
Total Iron (mg/L) Daily Maximum	0.29		0.32	0.4	0.49	0.43	0.28	0.24	0.35	0.68	0.24	0.94
Total Manganese (mg/L) Average Monthly	0.062		0.001	0.002	0.0101	0.0082	0.0058	0.0053	0.0072	0.0128	0.032	0.25
Total Manganese (mg/L) Daily Maximum	0.11		0.01	0.0089	0.012	0.013	0.0074	0.0072	0.0083	0.018	0.05	0.25

Existing Effluent Limits and Monitoring Requirements

A table below summarizes effluent limits and monitoring requirements specified in the current permit:

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/day	Calculation
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
Total Suspended Solids	XXX	XXX	XXX	30	60	75	2/month	24-Hr Composite
Copper, Total	XXX	XXX	XXX	Report	Report	XXX	2/month	24-Hr Composite
Iron, Total	XXX	XXX	XXX	2.0	4.0	5	2/month	24-Hr Composite
Manganese, Total	XXX	XXX	XXX	1.0	2.0	2.5	2/month	24-Hr Composite

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .05
Latitude 40º 13' 15.00" **Longitude** -76º 55' 38.00"
Wastewater Description: Water Treatment Effluent

Technology-Based Limitations

The facility given the type of discharge generated is not subject to federal effluent limits and guidelines (ELGs). The facility is subject to the state effluent standards for industrial waste found in 25 Pa Code §§92a.48 and 95.2. Further, DEP generally uses recommended BPT effluent requirements expressed in DEP's technical guidance no. 362-2183-003 to develop effluent limits for water treatment plant wastes. These requirements are shown below:

Parameter	Monthly Average (mg/L)	Daily Maximum (mg/L)
TSS	30	60
Total Iron	2	4
Total Aluminum	4	8
Total Manganese	1	2
Flow	Monitor	
pH	6-9 at all times	
TRC	0.5	1.0

Total Aluminum was removed from the permit during the last permit renewal as requested by the permittee. The review at that time revealed that Total Aluminum has been consistently non-detected in both raw water and effluent and the facility does not utilize Alum. As a result, DEP agreed that Total Aluminum permit requirements were not needed. For this permit renewal however, it is recommended that Total Aluminum effluent limits be included in the permit. While the permittee did not provide effluent sample results for Total Aluminum, the raw water intake sample collection provided with the application shows that Total Aluminum is detected (i.e., 110 ug/L). This would demonstrate that once filter backwash occurs, effluent concentration for Total Aluminum will most likely be higher. Inclusion of heavy metals such as Total Aluminum, Total Manganese and Total Iron is a standard permitting practice applied by DEP for those water treatment facilities utilizing a filter backwash (see DEP's guidance no. 362-2183-003). If the data during the next permit renewal shows that Total Aluminum is consistently non-detected in effluent, DEP may revisit this requirement during the next permit renewal application review.

Given that the facility currently uses chlorine prior to filtration, TRC effluent limits were included in the last permit per 25 Pa Code §92a.48.

Water Quality-Based Limitations

WQM 7.0
CBOD5 and NH3-N are not pollutants of concern for the water treatment waste as the discharge of these pollutants is not resulting from the water treatment process. Therefore, WQM 7.0 modeling is not necessary and permit requirements for these pollutants are not recommended.

Total Residual Chlorine
DEP's TRC_CALC worksheet was utilized and indicated that the effluent limits of 0.5 mg/L (average monthly) and 1.6 mg/L (instantaneous maximum) will be appropriate for water quality protection.

Toxics
DEP utilizes a Toxics Management Spreadsheet (TMS) to facilitate calculations necessary for completing a reasonable potential analysis and determining WQBELs for toxic pollutants. The worksheet combines the functionality of DEP's previous water quality models including Toxics Screening Analysis worksheet and PENTOXSD. The TMS does not recommend any WQBELs for the upcoming permit renewal. The data collected during the permit term shows that Total Copper has been consistently low, almost non-detect. As TMS does not recommend any limits and monitoring requirements, it is recommended that the existing Total Copper monitoring requirement be removed from the permit.

Additional Considerations

Flow Monitoring
Flow monitoring will remain in the permit and is required by 40 CFR § 122.44(i)(1)(ii).

Chesapeake Bay TMDL
DEP's Supplement to Phase II Watershed Implementation Plan (WIP) indicates that monitoring and reporting of TN and TP are necessary for non-significant IW facilities throughout the permit term anytime the facility has the potential to introduce a net TN or TP increase to the load contained within the intake water used in processing. The facility does not use any chemical products prior to filtration that contain nitrogen or phosphorus and no nutrients are expected to be generated from the water treatment process. The requirement to monitor for TN and TP is therefore not needed.

Instantaneous Maximum Effluent Limitations
In general, instantaneous maximum effluent limitations (IMAX) are not necessary for any parameters that are required to be measured through the collection of composite samples. NPDES permits include IMAX limits for compliance purpose(s) only, allowing DEP to collect a grab sample at the time of inspection to determine compliance. Accordingly, these limits will remain unchanged in the draft permit.

Monitoring Frequency and Sample Type
All existing monitoring frequency and sample type will remain unchanged. A daily grab sampling requirement for TRC is recommended by DEP's technical guidance no. 362-0400-001. A semi-monthly 24-hour composite sampling requirement for Total Copper is recommended to correspond with the sample type and monitoring frequency assigned to other toxic pollutants.

Anti-Degradation Requirements
The effluent limits for this discharge have been developed to ensure the existing in-stream uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

Anti-Backsliding Requirements
Unless stated otherwise in this fact sheet, permit requirements proposed in this fact sheet are at least as stringent as existing permit requirements.

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/day	Calculation
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
TSS	XXX	XXX	XXX	30	60	75	2/month	24-Hr Composite
Total Iron	XXX	XXX	XXX	2.0	4.0	5	2/month	24-Hr Composite
Total Manganese	XXX	XXX	XXX	1.0	2.0	2.5	2/month	24-Hr Composite
Total Aluminum	XXX	XXX	XXX	4.0	8.0	10	2/month	24-Hr Composite

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/day	Calculation
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
TSS	XXX	XXX	XXX	30	60	75	2/month	24-Hr Composite
Total Copper	XXX	XXX	XXX	Report	Report	XXX	2/month	24-Hr Composite
Total Iron	XXX	XXX	XXX	2.0	4.0	5	2/month	24-Hr Composite
Total Manganese	XXX	XXX	XXX	1.0	2.0	2.5	2/month	24-Hr Composite

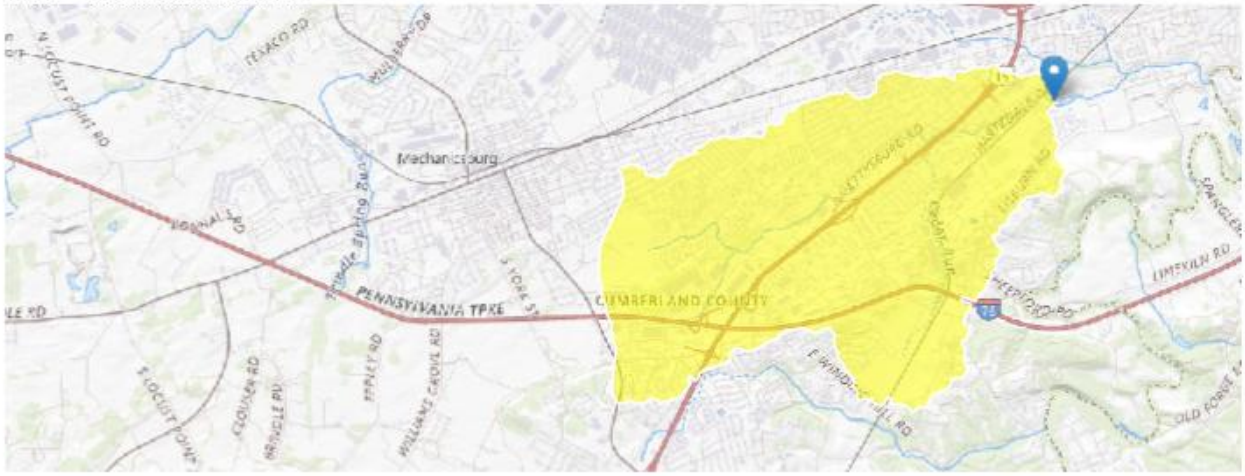
Compliance Sampling Location:

Other Comments:

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:
☐	Other:

StreamStats Report

Region ID: PA
Workspace ID: PA20250616171022829000
Clicked Point (Latitude, Longitude): 40.22080, -76.92736
Time: 2025-06-16 13:10:54 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	81.14	percent
DRNAREA	Area that drains to a point on a stream	6.25	square miles
PRECIP	Mean Annual Precipitation	41	inches
ROCKDEP	Depth to rock	5.6	feet
STRDEN	Stream Density -- total length of streams divided by drainage area	1.03	miles per square mile

General Disclaimers

Parameter values have been edited, computed flows may not apply.

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CARBON	Percent Carbonate	81.14	percent	0	99
DRNAREA	Drainage Area	6.25	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	41	inches	35	50.4
ROCKDEP	Depth to Rock	5.6	feet	3.32	5.65
STRDEN	Stream Density	1.03	miles per square mile	0.51	3.1

Low-Flow Statistics Flow Report [Low Flow Region 2]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	3.53	ft^3/s	38	38
30 Day 2 Year Low Flow	3.73	ft^3/s	33	33
7 Day 10 Year Low Flow	2.63	ft^3/s	51	51
30 Day 10 Year Low Flow	2.72	ft^3/s	46	46
90 Day 10 Year Low Flow	2.87	ft^3/s	36	36

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.29.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2025

Discharge Information

Instructions | Discharge | Stream

Facility: **SCI-DOC Camp Hill** NPDES Permit No.: **PA0084395** Outfall No.: **001**

Evaluation Type **Major Sewage / Industrial Waste** Wastewater Description: **Filter Backwash**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.05	289	7						

					0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		446									
	Chloride (PWS)	mg/L											
	Bromide	mg/L											
	Sulfate (PWS)	mg/L											
	Fluoride (PWS)	mg/L											
Group 2	Total Aluminum	µg/L											
	Total Antimony	µg/L	<	2									
	Total Arsenic	µg/L	<	3									
	Total Barium	µg/L		0.04									
	Total Beryllium	µg/L	<	1									
	Total Boron	µg/L	<	200									
	Total Cadmium	µg/L	<	0.2									
	Total Chromium (III)	µg/L		3.7									
	Hexavalent Chromium	µg/L		3									
	Total Cobalt	µg/L	<	1									
	Total Copper	µg/L		6.3									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L	<	10									
	Dissolved Iron	µg/L	<	20									
	Total Iron	µg/L		4.5									
	Total Lead	µg/L	<	1									
	Total Manganese	µg/L		0.086									
	Total Mercury	µg/L		0.00095									
	Total Nickel	µg/L		1.7									
	Total Phenols (Phenolics) (PWS)	µg/L	<	5									
	Total Selenium	µg/L		1.3									
	Total Silver	µg/L	<	0.5									
	Total Thallium	µg/L	<	2									
	Total Zinc	µg/L		1.8									
	Total Molybdenum	µg/L		1.1									
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	µg/L	<										
	Bromoform	µg/L	<										
	Carbon Tetrachloride	µg/L	<										

Group 3	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										
	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	µg/L	<										
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	µg/L	<										
	Toluene	µg/L	<										
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	µg/L	<										
	Vinyl Chloride	µg/L	<										
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	µg/L	<										
	Benzo(a)Pyrene	µg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	µg/L	<										
	Benzo(k)Fluoranthene	µg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	µg/L	<										
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										
	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										

	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										
	Indeno(1,2,3-cd)Pyrene	µg/L	<										
	Isophorone	µg/L	<										
	Naphthalene	µg/L	<										
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	µg/L	<										
	Pyrene	µg/L	<										
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	µg/L	<										
	PCB-1221	µg/L	<										
	PCB-1232	µg/L	<										
	PCB-1242	µg/L	<										
	PCB-1248	µg/L	<										
	PCB-1254	µg/L	<										
	PCB-1260	µg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2025

Stream / Surface Water Information

SCI-DOC Camp Hill , NPDES Permit No. PA0084395, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Cedar Run**

No. Reaches to Model: 1

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	063604	1.53	357	6.25			Yes
End of Reach 1	063604	0	317	12.6			Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	1.53	0.3176										100	7		
End of Reach 1	0	0.3176													

Q_h

Location	RMI	LFY (cfs/mi²)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	1.53														
End of Reach 1	0														

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2025

Model Results

SCI-DOC Camp Hill , NPDES Permit No. PA0084395, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | (•) All | ( ) Inputs | ( ) Results | ( ) Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 13.076 PMF: 1 Analysis Hardness (mg/l): 107.09 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	1,100	1,100	29,329	
Total Arsenic	0	0		0	340	340	9,065	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	559,914	
Total Boron	0	0		0	8,100	8,100	215,967	
Total Cadmium	0	0		0	2.152	2.29	61.0	Chem Translator of 0.941 applied
Total Chromium (III)	0	0		0	602.635	1,907	50,847	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	434	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	2,533	
Total Copper	0	0		0	14.335	14.9	398	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	69.576	89.1	2,375	Chem Translator of 0.781 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	43.9	Chem Translator of 0.85 applied
Total Nickel	0	0		0	496.166	497	13,256	Chem Translator of 0.998 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	Chem Translator of 0.922 applied
Total Silver	0	0		0	3.619	4.26	114	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	1,733	
Total Zinc	0	0		0	124.181	127	3,385	Chem Translator of 0.978 applied

☑ ***CFC*** CCT (min): 13.076 PMF: 1 Analysis Hardness (mg/l): 107.09 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	

Total Antimony	0	0		0	220	220	5,866	
Total Arsenic	0	0		0	150	150	3,999	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	109,317	
Total Boron	0	0		0	1,600	1,600	42,660	
Total Cadmium	0	0		0	0.258	0.28	7.59	Chem Translator of 0.906 applied
Total Chromium (III)	0	0		0	78.390	91.2	2,430	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	277	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	507	
Total Copper	0	0		0	9.495	9.89	264	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	39,994	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	2.711	3.47	92.6	Chem Translator of 0.781 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	24.2	Chem Translator of 0.85 applied
Total Nickel	0	0		0	55.109	55.3	1,474	Chem Translator of 0.997 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	4.600	4.99	133	Chem Translator of 0.922 applied
Total Silver	0	0		0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thallium	0	0		0	13	13.0	347	
Total Zinc	0	0		0	125.197	127	3,385	Chem Translator of 0.986 applied

☑ ***THH*** CCT (min): 13.076 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	
Total Antimony	0	0		0	5.6	5.6	149	
Total Arsenic	0	0		0	10	10.0	267	
Total Barium	0	0		0	2,400	2,400	63,990	
Total Boron	0	0		0	3,100	3,100	82,654	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	300	300	7,999	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	26,663	
Total Mercury	0	0		0	0.050	0.05	1.33	
Total Nickel	0	0		0	610	610	16,264	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	0.24	0.24	6.4	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 4.017 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

Pollutants	*Mass Limits*		*Concentration Limits*				Governing WQBEL	WQBEL Basis	Comments
	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units			

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Total Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	N/A	N/A	Discharge Conc < TQL
Total Barium	63,990	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS

Total Boron	N/A	N/A	Discharge Conc < TQL
Total Cadmium	N/A	N/A	Discharge Conc < TQL
Total Chromium (III)	2,430	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	277	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cobalt	507	µg/L	Discharge Conc < TQL
Total Copper	255	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cyanide	N/A	N/A	No WQS
Dissolved Iron	7,999	µg/L	Discharge Conc < TQL
Total Iron	39,994	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	92.6	µg/L	Discharge Conc < TQL
Total Manganese	26,663	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	1.33	µg/L	Discharge Conc ≤ 10% WQBEL
Total Nickel	1,474	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)		µg/L	Discharge Conc < TQL
Total Selenium	133	µg/L	Discharge Conc ≤ 10% WQBEL
Total Silver	72.8	µg/L	Discharge Conc ≤ 10% WQBEL
Total Thallium	6.4	µg/L	Discharge Conc < TQL
Total Zinc	2,170	µg/L	Discharge Conc ≤ 10% WQBEL
Total Molybdenum	N/A	N/A	No WQS