pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0113719**
Facility Type	**Municipal**	APS ID	**992315**
Major / Minor	**Minor**	Authorization ID	**1271730**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Perry Township Municipal Authority**	Facility Name	**Mt. Pleasant Mills WWTP**
Applicant Address	PO Box 27	Facility Address	Cluck Ridge Road
	Mt Pleasant M, PA 17853-0027		Mt Pleasant Mills, PA 17853
Applicant Contact	Ronald Mowery	Facility Contact	Ronald Mowery
Applicant Phone	(570) 274-6369	Facility Phone	(570) 274-6369
Client ID	25657	Site ID	246709
Ch 94 Load Status	Not Overloaded	Municipality	Perry Township
Connection Status	No Limitations	County	Snyder
Date Application Received	April 29, 2019	EPA Waived?	Yes
Date Application Accepted	May 2, 2019	If No, Reason	
Purpose of Application	Renewal of an existing NPDES permit for the discharge of treated sewage.		

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
		Derek S. Garner / Project Manager	
		Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.06
Latitude	40º 43' 24.47"	Longitude	-77º 0' 24.57"
Quad Name	Richfield	Quad Code	1329
Wastewater Description:	Sewage Effluent		

Receiving Waters	North Branch Mahantango Creek	Stream Code	17370
NHD Com ID	54969659	RMI	6.39
Drainage Area	9.43	Yield (cfs/mi^2)	0.16
Q_{7-10} Flow (cfs)	1.51	Q_{7-10} Basis	Streamgage No. 01565000
Elevation (ft)	535	Slope (ft/ft)	n/a
Watershed No.	6-C	Chapter 93 Class.	TSF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		
Cause(s) of Impairment	Organic enrichment, pathogens		
Source(s) of Impairment	Agriculture, urban runoff/storm sewers		
TMDL Status	Final	Name	North Branch Mahantango Creek Watershed

Nearest Downstream Public Water Supply Intake	SUEZ Water		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	2,356
PWS RMI	76.73	Distance from Outfall (mi)	35

Treatment Facility Summary

The Mt. Pleasant Mills Wastewater Treatment Plant is a Cromaglass sequencing batch reactor facility with an annual average design flow of 0.06 MGD, hydraulic design capacity of 0.072 MGD, and an organic design capacity of 168 lbs BOD_5/day. WQM Permit No. 5598401, issued July 24, 1998, authorized the construction and operation of the following treatment units:

- One (1) equalization tank
- Five (5) CA-120 Cromaglass units
- Three (3) erosion chlorinators
- Three (3) chlorine contact tanks

A sixth Cromaglass tank was installed without DEP approval, resulting in subsequent approval under WQM Permit No. 5508402. This permit also rerated the plant's average annual design flow from 0.05 to 0.06 MGD.

Wasted sludge is hauled to the Richfield Area Joint Authority Wastewater Treatment Plant, NPDES Permit No. PA0087611, or the Municipal Authority of Ralpho Township Wastewater Treatment Plant, NPDES Permit No. PA0028738.

An application to amend WQM Permit No. 5508402 to include a dichlorination treatment unit was received by DEP on December 11, 2019. See Compliance History section below for further details.

Compliance History

The facility was last inspected by DEP on August 14, 2019. During the inspection it was discovered that the permittee had installed and placed into operation a dichlorination treatment unit without DEP approval. An application to amend the

facility's WQM Permit No. 5508402 was received by DEP December 11, 2019. As of the date of this report, the amendment request is still under review.

The following effluent violations occurred during the existing permit's term:

Monitoring Period	Parameter	Sample Value	Violation Condition	Permit Value	Units	SBC
March 2017	Fecal Coliform	14200	>	10000	CFU/100 ml	IMAX
April 2017	CBOD5	33	>	25	mg/L	Avg Mo
April 2017	CBOD5	47	>	40	mg/L	Weekly Avg
May 2017	Fecal Coliform	< 832	>	200	CFU/100 ml	Geo Mean
May 2017	TSS	37	>	30	mg/L	Avg Mo
May 2017	TSS	46	>	45	mg/L	Weekly Avg
May 2017	Fecal Coliform	9600	>	1000	CFU/100 ml	IMAX
June 2017	CBOD5	62	>	40	mg/L	Weekly Avg
June 2017	Fecal Coliform	2419.6	>	1000	CFU/100 ml	IMAX
June 2017	Fecal Coliform	333	>	200	CFU/100 ml	Geo Mean
June 2017	CBOD5	37	>	25	mg/L	Avg Mo
June 2017	TSS	31	>	30	mg/L	Avg Mo
July 2017	Fecal Coliform	345	>	200	CFU/100 ml	Geo Mean
July 2017	Fecal Coliform	2419.6	>	1000	CFU/100 ml	IMAX
August 2017	Fecal Coliform	2419.6	>	1000	CFU/100 ml	IMAX
August 2017	Fecal Coliform	497	>	200	CFU/100 ml	Geo Mean
February 2018	Fecal Coliform	2101	>	2000	CFU/100 ml	Geo Mean
February 2018	Fecal Coliform	24196	>	10000	CFU/100 ml	IMAX
March 2018	Fecal Coliform	10462	>	10000	CFU/100 ml	IMAX
April 2018	Fecal Coliform	24196	>	10000	CFU/100 ml	IMAX
July 2018	Fecal Coliform	1413.6	>	1000	CFU/100 ml	IMAX
August 2018	Fecal Coliform	2419.6	>	1000	CFU/100 ml	IMAX
October 2018	Fecal Coliform	7916	>	2000	CFU/100 ml	Geo Mean
October 2018	Fecal Coliform	24196	>	10000	CFU/100 ml	IMAX
April 2019	TSS	85	>	30	mg/L	Avg Mo
April 2019	TSS	111	>	45	mg/L	Weekly Avg
April 2019	TSS	18	>	15	lbs/day	Avg Mo
April 2019	TSS	24	>	22	lbs/day	Weekly Avg
April 2019	CBOD5	< 60	>	40	mg/L	Weekly Avg
April 2019	CBOD5	< 40	>	25	mg/L	Avg Mo

Based on the above violations, it appears the facility has had a history of frequently exceeding fecal coliform limitations. These exceedances should be eliminated by the abovementioned installation of the dichlorination unit by allowing the Authority to dose a higher amount of chlorine while still meeting total residual chlorine limits by dechlorinating.

Various TSS and CBOD5 exceedances are contributed to pump failures throughout the treatment units. Pumps have been repaired as needed.

There are no open violations associated with the permittee.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.06
Latitude 40º 43' 24.70" **Longitude** -77º 0' 24.50"
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)
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)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

(1) Previous renewals of the permit carried over an average monthly total residual chlorine ("TRC") limit of 1.0 mg/L. As identified in the table above, 25 PA Code § 92a.48(b)(2) establishes a best available technology (BAT) limit of 0.5 mg/L unless a site-specific study was conducted. Since it does not appear that a site-specific TRC study was ever conducted at the facility, the BAT limit of 0.5 mg/L must be established. Since the facility currently dechlorinates after disinfection, the Authority should be able to immediately achieve the proposed 0.5 mg/l limit.

Water Quality-Based Limitations

A "Reasonable Potential Analysis" (attached) determined the existing technology-based limits are protective of North Branch Mahantango Creek.

Best Professional Judgment (BPJ) Limitations

To help confirm the facility is being operated correctly and the discharge is not negatively impacting the North Branch Mahantango Creek, DEP recommends continuing to require monitoring requirements for dissolved oxygen and ammonia.

Chesapeake Bay

Per Phase 2 of Pennsylvania's Chesapeake Bay Watershed Implementation Plan (WIP), the Authority has completed five years' worth of total nitrogen and total phosphorus monitoring required for Phase V facilities. The sample results are as follows:

Monitoring Period	Parameter	Load Units	Load Value	Load SBC	Conc. Units	Conc. Value	Conc. SBC
2015	Total Nitrogen	lbs/day	2.1	Annual Average	mg/L	13.4	Annual Average
2016	Total Nitrogen	lbs/day	4	Annual Average	mg/L	33.2	Annual Average
2017	Total Nitrogen	lbs/day	< 8	Annual Average	mg/L	< 38.61	Annual Average
2018	Total Nitrogen	lbs/day	2	Annual Average	mg/L	13.938	Annual Average
2019	Total Nitrogen	lbs/day	4	Annual Average	mg/L	16.208	Annual Average

Monitoring Period	Parameter	Load Units	Load Value	Load SBC	Conc. Units	Conc. Value	Conc. SBC
2015	Total Phosphorus	lbs/day	0.3	Annual Average	mg/L	2.1	Annual Average
2016	Total Phosphorus	lbs/day	1	Annual Average	mg/L	3.7	Annual Average
2017	Total Phosphorus	lbs/day	1	Annual Average	mg/L	5.62	Annual Average
2018	Total Phosphorus	lbs/day	0.4	Annual Average	mg/L	1.7	Annual Average
2019	Total Phosphorus	lbs/day	0.8	Annual Average	mg/L	3.02	Annual Average

Since the facility has completed the required five years of nutrient monitoring, DEP has recommended to remove total nitrogen and total phosphorus monitoring from the permit.

TMDL Considerations

The North Branch Mahantango Creek TMDL addresses organic enrichment and pathogens caused by agriculture and urban runoff/stormwater. The discharge is not assigned a load allocation in the TMDL and is not expected to contribute to the impairment. Accordingly, the TMDL will not impact the permit.

Additional Considerations

Raw sewage influent monitoring is proposed to remain in the permit for Chapter 94 reporting purposes.

Anti-Backsliding

Monitoring requirements for Chesapeake Bay nutrients have been removed from the permit per anti-backsliding regulations at 40 CFR § 122.44(l)(2)(i)(B)(1), which allows for parameters to be removed from the permit based on information that was not available at the time of previous permit issuance.

Existing Effluent Limitations and Monitoring Requirements

The existing limits and monitoring requirements are as follows:

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	Report	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	1.0	XXX	2.3	1/day	Grab
CBOD5	12	20	XXX	25	4	50	2/month	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS	15	22	XXX	30	45	60	2/month	8-Hr Composite
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	Report Annl Avg	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Ammonia	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Total Phosphorus	Report Annl Avg	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

Compliance Sampling Location: Outfall 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" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	12	20	XXX	25.0	40.0	50	2/month	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TSS	15	22	XXX	30.0	45.0	60	2/month	8-Hr Composite
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia	Report	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001

ATTACHMENTS