



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Report Title: Clean Water Act Compliance Inspection Report
Inspection Date(s): 08/25/2021
Regulatory Program(s): National Pollutant Discharge Elimination System (NPDES)
Type of Activity: Municipal Wastewater Treatment
Facility Name: Slatington Wastewater Treatment Plant
Permittee(s): Slatington Borough Authority
Facility Operator: Slatington Borough Authority
Permittee Address: 125 South Walnut Street, Slatington, PA 18080
Facility Address: 900 Railroad Street (Route 873), Slatington, PA 18080
Facility Latitude: 40.760150
Facility Longitude: -75.607470
County/Parish: Lehigh County
Permit No: PA0020176
NAICS Code: 221320
SIC: 4952
Unique Project #: 3E21WN141A

Facility Representative(s):

Point of Contact

Kenneth Fulford
Email: dolesluj@hotmail.com
Duane Szczesny
Email: dszczesny@slatington.org
Joe Wechsler
Email: jwechsler@slatington.org



EPA Inspectors:

Mike Greenwald – EPA Region III
Phone: (215) 814-2398 Email: Greenwald.Michael@epa.gov
Kaitlin McLaughlin – EPA Region III
Phone: (215) 814-2393 Email: McLaughlin.Kaitlin@epa.gov

State/Local Inspectors (see report body for list of additional inspectors):

Patrick Musinski
Email: pmusinski@pa.gov

Greenwald, Michael

Digitally signed by Greenwald,
Michael
Date: 2021.10.28 14:16:56 -04'00'

Report Preparer

Signature/Date

Mike Greenwald, Enforcement Officer
NPDES Enforcement Section (3ED32)

Date

Supervisor

Signature/Date

Mark Zolandz, Acting Chief
NPDES Enforcement Section (3ED32)

Date

Unique Project#: 3E21WN141A

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I. Introduction

On August 25, 2021, an inspection team composed of staff from the U.S. Environmental Protection Agency (“EPA”) Region III (hereinafter, “EPA Inspection Team”) conducted a municipal wastewater inspection of the Slatington Wastewater Treatment Plant. The purpose of the inspection was to observe compliance with the Clean Water Act (CWA) and to verify compliance with the facility’s National Pollutant Discharge Elimination System (NPDES) Permit No. PA0020176 (hereinafter, the “Permit”) and applicable State and Federal regulations.

A. Inspection Opening Conference

The EPA Inspection Team arrived at the site at est. 10:00 AM. Representatives from the Pennsylvania Department of Environmental Protection (PADEP) were in attendance. The following inspectors and representatives were present for the inspection:

Table 1: Inspection Attendee List

Name	Affiliation	Telephone	Email
EPA Region III Inspectors and Contractors			
Mike Greenwald	EPA Region III	(215) 814-2398	Greenwald.Michael@epa.gov
Kaitlin McLaughlin	EPA Region III	(215) 814-2393	McLaughlin.Kaitlin@epa.gov
Facility Representatives			
Kenneth Fulford	K.L. Fulford Associates, Inc.	-	dolesluj@hotmail.com
Duane Szczesny	Slatington Borough – Operator	-	dszczesny@slatington.org
Joe Wechsler	Slatington Borough	-	jwechsler@slatington.org
State or County Representatives			
Patrick Musinski	PADEP	-	pmusinski@pa.gov
Scott Confer	PADEP	-	scconfer@pa.gov
Kelsey Glavich	PADEP	-	kglavich@pa.gov

Mike Greenwald and Kaitlin McLaughlin displayed their credentials to the site representatives at the outset of the inspection, and explained the purpose of the inspection was to observe compliance with its Permit. A copy of the Permit is provided in [Attachment 1](#).

B. Weather and Precipitation Conditions

During the inspection, weather was clear. The closest National Oceanic and Atmospheric Administration (NOAA) National Weather Service precipitation data for the date of the inspection and 5 days prior are provided in the Table 2 below.

Table 2. Precipitation Data

Station Name	Date	Precipitation Amount (inches) ¹
SCHNECKSVILLE 1.7 ENE, PA US US1PALH0017	8/20/21	T
SCHNECKSVILLE 1.7 ENE, PA US US1PALH0017	8/21/21	0.00
SCHNECKSVILLE 1.7 ENE, PA US US1PALH0017	8/22/21	0.53
SCHNECKSVILLE 1.7 ENE, PA US US1PALH0017	8/23/21	2.65
SCHNECKSVILLE 1.7 ENE, PA US US1PALH0017	8/24/21	T
SCHNECKSVILLE 1.7 ENE, PA US US1PALH0017	8/25/21	0.0

II. Facility Activity

The Slatington Wastewater Treatment Plant (WWTP) (hereinafter, “the facility”) is located at 900 Railroad Street (Route 873), Slatington, PA 18080. The Permit identifies the permittee as Slatington Borough Authority (hereinafter, “the Authority”), which is located at 125 South Walnut Street, Slatington, PA 18080.

The facility receives influent flows from a service area that includes Slatington Borough and adjacent municipalities, including Washington Township, Walnutport Borough, and Lehigh Township. Walnutport Borough’s system is leased to Lehigh County Authority (LCA), and LCA operates the system. The WWTP, Slatington Pump Station, and Slatington Borough’s collection system is maintained by Slatington Borough through an agreement with the Authority. The adjacent municipalities perform operation and maintenance of their own pump stations and collection systems. The permitted capacity of the facility is 1.5 MGD, with an average flow of 0.7 MGD.

The facility treatment process consists of a Hycor Helisieve and bar screens, two primary clarifiers, two trickling filters, two secondary clarifiers, and two chlorine contact tanks with sulfur dioxide dechlorination. The facility’s sludge management process is in the process of being modified, as originally the facility had two anaerobic digesters and reed beds. The facility is in the process of modifying the anaerobic digesters into aerobic digesters, while the reed beds are not currently being utilized. Additional details are listed in the observations section of the report.

III. Observations

The inspection observations below are made pursuant to the requirements of the Permit. Photographs were taken during the inspection by Kaitlin McLaughlin and are provided in Attachment 2.

Facility Operation

The facility representatives stated that there are two full-time operators on-site. Operators are on-site Monday through Friday, on every other weekend, and on call through a 24/7 emergency hotline. The lead operator has a Class A,E, Wastewater & Subclass 1,2,3,4

¹ Source: NOAA National Climatic Data Center (<http://www.ncdc.noaa.gov/>).

certification. The second operator has a Class A,E, Wastewater & Subclass 2,3,4 certification. The facility also provided certificates for a backup operator (who the facility representatives indicated had operated the WWTP on several days that year), as well as for two of the facility's consultants.

The September 18, 2008 Consent Order and Agreement ("CO&A") (see Attachment 3) issued by PADEP required corrective actions, including the following in section 3.a: "On or before January 1, 2009, Slatington Borough Authority shall have employed or cause to be employed two full time certified wastewater system operators and one full time laborer, dedicated to the operation of the STP [sewage treatment plant], to ensure proper operation of the STP. Copies of all certified sewage treatment plant operators' certificates shall be mailed to the Department."

The CO&A includes the following in section 3.d: On or before July 1, 2020, Slatington Borough Authority shall have employed or cause to be employed three full time certified wastewater system operators dedicated to the operation of the STP, to ensure proper operation of the STP. Copies of all certified sewage treatment plant operators' certificates shall be mailed to the Department."

Observation 1. The EPA Inspection Team observed that sufficient documentation had not been submitted to the State to demonstrate that three operators are employed full-time to ensure proper operation of the facility. The State's 2008 CO&A has not been terminated by the State and is considered ongoing in part due to this requirement not being fulfilled.

The facility representatives stated that relevant documentation and hands-on training is provided to new operators, but there is not a formal training program in place at the facility.

The facility representatives stated that current operation and maintenance plans and standard operating procedures (SOPs) utilized by the WWTP to ensure NPDES compliance have recently been updated and shared with both PADEP and EPA. A requirement in PADEP's 2008 CO&A was to submit to PADEP a written Environmental Management System ("EMS"). The requirements for the EMS included, in part, detailed SOPs for all NPDES processes that affect permit compliance, schematics for processes, process control sampling, a wet weather operation strategy, a sampling and monitoring plan, a preventative maintenance plan, a safety plan, and a staffing plan, among other items. This EMS was submitted to PADEP on January 31, 2020. This EMS was not reviewed as part of this inspection.

The facility currently does not have an electronic work order system. The operator keeps daily written logs onsite of all activities onsite, which includes notes regarding weather, sample collection, maintenance items, and orders made, among other items. Daily logs were reviewed for June-August 2021. The facility representatives stated that major maintenance activities are contracted out.

The facility conducts process efficiency testing. Monthly grab samples are being taken at the Trickling Filters, Primary Clarifiers, and Secondary clarifiers and analysis is being conducted for CBOD₅ and TSS.

The facility has an on-site lab, where the facility conducts analyses for pH, Total Residual Chlorine (TRC), and Dissolved Oxygen (DO). The pH and TRC analyses are conducted for the Permit effluent discharge monitoring requirements in Part A. The Hach® Colorimeter test kit used for TRC analysis was replaced with a low range unit in response to EPA's previous inspection of the facility in 2016 (see Attachment 4). Flow measurements are recorded daily on bench sheets for the influent & effluent flows, as well as for all three of the pump stations. Samples for 5-Day Carbonaceous Biological Oxygen Demand (CBOD₅), Total Suspended Solids (TSS), and Fecal Coliform testing are sent off-site to Suburban Testing Labs for analysis.

Calibration records were provided for the Slatington Pump Station flow meter, as well as the influent and effluent flow meters, which were conducted by Moyer Instruments, Inc. on 7/1/2021. Daily calibration records of pH and DO meters were provided with the facility's bench sheets.

Collection System Maintenance

The facility representatives stated that the Slatington Pump Station is inspected daily. The Slatington Pump Station is serviced by contractors. Walnutport Township's and Washington Township's pump stations are not maintained by Slatington Borough, and the facility representatives stated that the townships are responsible for their own pump stations.

The foreman of the roadcrew is responsible for Slatington Borough's collection system maintenance. He also responds when Sanitary Sewer Overflows (SSOs) occur and prepares 1-hour notifications and 5-day reports.

In a June 28, 2019 letter to EPA (see Attachment 5), Slatington Borough identified Infiltration and Inflow (I&I) projects completed between 2009 and 2011. Slatington Borough indicated that approximately 80% of the intra-Borough sewer collection system was rehabilitated, including replacement of 29,000 feet of 8" sewer pipe, replacement of 16,000 feet of 6" lateral pipes, lining of 12,700 feet of 8" and 10" sewer pipes, and roughly 30 manholes rehabilitated.

The facility representatives stated that a preventative maintenance program is ongoing in the collection system, wherein 10% of the sewer system is closed-circuit televised annually over a 10-year period.

Discharge Monitoring Reports

The EPA Inspection Team reviewed Discharge Monitoring Report (DMR) data from a period of August 2016 to July 2021.

Section A.1 of the Permit defines effluent discharge limitations, monitoring, and reporting requirements for Outfall No. 001.

Observation 2. Three effluent limit discharge exceedances were identified at Outfall 001 for the time period of August 2016 to July 2021. These included exceedances of the 25 mg/L monthly average CBOD₅ limit on 3/31/2018 (26 mg/L), on 2/29/2020 (28.1 mg/L), and on 2/28/2021 (31.9 mg/L).

Sanitary Sewer Overflows

The EPA Inspection Team requested a list of all SSOs that had occurred from 2019 to August 2021.

Section B.I.D.2 (Proper Operation and Maintenance) of the Permit states, “The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. 40 CFR 122.41 (e).”

Observation 3. Six SSOs in total were reported at the plant during the time period reviewed. SSOs occurring in the collection system are tracked and managed by a separate staff of Slatington Borough and were not reviewed as part of this inspection report. Facility representatives indicated that SSOs at the plant and the collection system are reported to the State as required.

Four SSOs were identified as occurring at the Primary Clarifiers on 1/24/19, 4/13/20, 8/4/20, and 9/1/20. These overflow events are described on the facility’s SSO reports as being due to rainfall. The operator stated that a new software had been installed at the WWTP approximately one year prior to regulate the Slatington Pump Station to ensure flow changes would be more gradual during wet weather and prevent sudden surges in the system. The operator also stated that the facility had its effluent lines re-lined approximately five years prior to prevent bottlenecks.

An SSO occurred at the Reed Beds on 5/13/19 and was described on the facility’s SSO report to be from leaking rainwater when pumping rainwater from the under-construction digester to the reed beds.

An SSO occurred at the digester on 10/25/19 and was described on the facility’s SSO report to be from excess foaming in the digester.

Clarifiers

Section B.I.D.2 (Proper Operation and Maintenance) of the Permit states, “The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the

permittee, only when necessary to achieve compliance with the terms and conditions of this permit. 40 CFR 122.41 (e). ”

Section A.III.B.1(Reporting of Monitoring Results) of the Permit states, “The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. 40 CFR 122.41(e) and 40 CFR 122.44(i)(1). ”

Observation 4. The EPA Inspection Team observed several occurrences of solids and sludge accumulation past the weir of Primary Clarifier #2. At the time of the inspection, the operator stated that these were due to a past rain event. See Photographs DSCN2157 and DSCN2159.

Observation 5. The EPA Inspection Team observed uneven flows being distributed over the weir of the Secondary Clarifier #1. See Photographs DSCN2174 and DSCN2176.

Observation 6. The EPA Inspection Team noted that the sludge blanket depth was not being recorded on daily logs for the clarifiers. The operator noted that these measurements are taken one to two times daily.

Observation 7. The previous EPA Inspection Report from December 14, 2016 noted that the primary clarifiers in the system are not drained and cleaned. The facility representatives stated at the time of the 2021 EPA inspection that they do not perform this practice.

Trickling Filters

The facility representatives stated that past BOD exceedances have been in part due to winter weather causing reduced efficiency of the Trickling Filters. The operator noted that covers for the Trickling Filters are being designed by Ebert Engineering, but the implementation of these are dependent on funding.

Digesters and Reed Beds

The facility representatives stated that the two digester tanks are in the process of being modified into permanent aerobic digesters. At the time of the inspection, the primary digester was in operation, while the secondary digester was being utilized as a holding tank and the facility representatives stated it was empty. The facility representatives noted that the secondary digester will be used temporarily if the primary digester tank is in need of maintenance.

Section B.I.D.2 (Proper Operation and Maintenance) of the Permit states, “The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. 40 CFR 122.41 (e). ”

Observation 8. On April 30, 2018, a Water Quality Management Permit was issued by PADEP to approve the modification of the conversion of the existing primary anaerobic sludge digester into an aerobic digester (See Attachment 6). In a June 28, 2019 letter to EPA, the Slatington Borough Authority Solicitor noted that bids for the project to convert the primary digester had been awarded and a company was providing project management, including developing operational procedures into a Standard Operating Procedure (SOP) (see Attachment 5). The facility representatives provided verification of completion of work dated 1/13/20, which indicated that general construction was completed for the primary aerobic digester conversion project (see Attachment 7).

At the time of the inspection, it did not appear that upgrades to the secondary digester had commenced. A memo prepared by Rettew Associates on November 30, 2012 (see Attachment 8) indicated that the secondary digester “is nearing the end of its useable life and likely requires replacement.” A report prepared by Schreiter Engineering Associates, Inc. dated September 2015 (see Attachment 9) indicated that the secondary digester tank had a lid that was “not in an acceptable condition. The lid is severely tilted does not float properly in the tank.” Facility representatives stated that the secondary digester is not used, but is scheduled to have the lid removed due to safety concerns, and that the project is funded and will go to bid. The facility representatives also indicated that there are not plans at this time to convert the secondary digester to an aerobic digester, as there is adequate capacity in the primary digester.

At the time of the inspection, the operator stated that the reed beds are not currently being used and that all sludge is hauled offsite. The operator stated sludge is hauled offsite on Monday, Wednesday, and Friday, and records were provided of this activity for June-August 2021. The operator stated that the reed beds were not being used due to a number of considerations, including that the cost of hauling sludge was not prohibitive, the reed beds require consistent replanting when being operated, and that the leachate in the underdrain is pumped to the headworks which can increase the organic loading on the plant.

Outfall 001

The facility’s effluent is discharged to the Lehigh River through Outfall 001. The outfall was under water at the time of the inspection.

Section A.C.1 of the Permit states, “The discharger may not discharge floating materials, oil, grease, scum, foam, sheen, and substances which produce color, taste, turbidity or settle to form deposits in concentrations or amounts sufficient to be, or creating a danger of being, inimical to the water uses to be protected or to human, animal, plant or aquatic life. 25 Pa. Code 92.51(6).”

Observation 9. The EPA Inspection Team observed that the outfall was difficult to access as it was overgrown with vegetation. The facility representatives indicated that the vegetation is not removed in order to limit public access to the outfall.

IV. Records Review

EPA requested and received copies of the following documents:

- Current WWTP process schematic
- Operator certifications
- Operator daily logs/round sheets for June 2021, July 2021 and August 2021
- Most recent calibration records for NPDES compliance equipment (flow meters, pH meters, DO meters, etc.)
- Bench sheets for June 2021, July 2021, and August 2021
- Sewage Sludge Management/Disposal Records for June 2021, July 2021 and August 2021
- List of SSOs that have occurred from 2019-2021
- Efficiency Testing and any other process control records for June 2021, July 2021, and August 2021
- A copy of the report titled: "Long Term Analysis for Disposal of Sludge" prepared by Schreider Engineering Associates, Inc. (SEA), dated September 2015

Records pertaining to the inspection report are attached, with additional records being kept on file.

V. Closing Conference

After the site walk, the EPA Inspection Team met with the site representatives for a closing conference. The EPA Inspection Team shared preliminary observations with the site representatives. The EPA Inspection Team reiterated to the site representatives that all preliminary observations discussed were not compliance determinations. Any and all preliminary observations shared were subject to further investigation by EPA upon the additional review of records and documentation. Additional observations may be contained in this inspection report that were not identified at the time of the closing conference after EPA reviewed additional materials following the inspection.

The inspection concluded at approximately 2:00 PM.

V. List of Attachments

- Attachment 1. NPDES Permit
- Attachment 2. Photograph Log
- Attachment 3. State CO&A dated 2008
- Attachment 4. EPA Inspection Report from December 14, 2016
- Attachment 5. CO&A response letter from June 28, 2019
- Attachment 6. WQM Permit for Digester Modification
- Attachment 7. Verification of digester general construction completion
- Attachment 8. Rettew Memo, 2012
- Attachment 9. Schreiter Digester Report, 2015