



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): 06/29/2022
Regulatory Program(s): National Pollutant Discharge Elimination System (NPDES)
Type of Activity: Wastewater
Facility Name: Town of Glasgow Wastewater Treatment Plant
Permittee(s): Town of, Glasgow
Facility Address: Glasgow, Town of
No. 8 Firefly Lane
Glasgow, WV 25086
Latitude: 38.215052 **Longitude:** -81.429518
Permit Number: WV0020265
NAICS Code: 221320 **SIC:** 4952
Receiving Waters: Upper Kanawha River
Unique Project #: 3E22WN047A

Facility Representative(s): **Point of Contact**

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Unique Project#: 3E22WN042A

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I. Introduction

On June 29, 2022, inspectors from the U.S. Environmental Protection Agency (“EPA”) Region III (hereinafter, the “EPA Inspection Team”) conducted a Wastewater Inspection of the Town of Glasgow’s Wastewater Treatment Plant (hereinafter, “the Facility”). A representative from West Virginia Department of Environmental Protection (“WVDEP”) was also present for the Inspection. 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. WV0020265, hereinafter, the “Permit”, and applicable State and Federal regulations. The Permit is included as Appendix A.

A. Inspection Opening Conference

The EPA Inspection Team arrived at the site at approximately 9:00 AM (EDT) for the inspection. The EPA Inspection Team met with the Facility representative. Monica Crosby displayed her credentials to Dwayne Barton at the outset of the inspection and explained the purpose of the inspection was to review compliance with the Permit. The EPA Inspection Team explained that any information that the Facility deemed to be confidential business information (“CBI”) should be identified to the EPA Inspection Team during the inspection and it would be handled as CBI according to EPA’s CBI procedures. Table 1 outlines the individuals that participated in the inspection.

Table 1. Inspection Attendee List

Name	Affiliation	Contact Information
U.S. EPA Region III		
Monica Crosby	Inspector - EPA Region III	Phone: (410) 305-2930 Email: Crosby.monica@epa.gov
Edward Simas	Inspector (In-Training) – EPA Region III	Phone: (215) 814-2120 Email: Simas.edward@epa.gov
West Virginia Department of Environmental Protection		
Christina Priestley	Inspector - WVDEP	Phone: (304) 926-0470 ext.49775 Email: christinia.e.priestley@wv.gov
Facility Representative		
Dwyane Barton	Chief Operator - Glasgow WWTP	Phone: (304) 695-2170 Email: dwaynebarton012@gmail.com

B. Weather and Precipitation Conditions

During the inspection, weather was sunny and dry. 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 Data¹

Station Name	Date	Precipitation Amount (inches) ¹
CLARKSBURG 1, WV USUSC00461677	4/07/2022	0.00
CLARKSBURG 1, WV USUSC00461677	4/08/2022	T ²
CLARKSBURG 1, WV USUSC00461677	4/09/2022	1.45
CLARKSBURG 1, WV USUSC00461677	4/10/2022	0.00
CLARKSBURG 1, WV USUSC00461677	4/11/2022	0.00
CLARKSBURG 1, WV USUSC00461677	4/12/2022	0.00

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

² "T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

C. Summary of the Facility

The town of Glasgow operates and maintains a wastewater collection system and an existing 0.15 million gallons per day (MGD) oxidation ditch wastewater treatment plant (WWTP). The WWTP is comprised of a mechanical bar screen, a grit chamber, a 150,000-gallon oxidation ditch, two (2) clarifiers with a total volume of 26,000 gallons, two (2) chlorine contact chambers with a total volume of 4,600 gallons, dechlorination facilities, a 36,000-gallon aerobic digester, sludge drying beds with a total surface area of 3,000 square feet, and all requisite appurtenances.

The WWTP serves a population of approximately 1,500 persons within the Town of Glasgow and its environs. Treated effluent discharges through Outlet No. 001 to the Kanawha River at Mile Point 77.8. Under the meaning of Section 502(7) CWA, 33 U.S.C. § 1362(7), the Kanawha River is considered a navigable water of the United States.

The Facility was first issued its Permit on September 08, 2015. This was superseded by the Facility's current Permit, which was issued on August 12, 2020, and became effective on October 01, 2020, and is set to expire on August 11, 2025. Under its Permit, the Facility is required to monitor flow continuously and sample and report monthly for the following parameters at Outlet 001: biological oxygen demand (BOD), total suspended solids (TSS), BOD percent removal, TSS percent removal, fecal coliform, total Nitrogen (TKN), and total residual chlorine. Quarterly sampling and reporting are required for total recoverable copper, total recoverable lead, and total recoverable zinc. The Facility is also required to sample its sewage sludge semi-annually.

Should the Facility find it applicable, the U.S. EPA Small Business Resources Information Sheet can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>.

II. Facility Activity

The EPA Inspection Team visually observed the Facility's wastewater treatment train and site conditions in the presence of the Facility's Chief Operator. The wastewater treatment train consists of:

- A lift station;
- Mechanical bar screen;
- Grit chamber;
- Oxidation ditch equipped with two (2) brush rotors for aeration and mixing;
- Clarifier
- Aerobic digester;
- Chlorine-contact chamber; and
- Sludge drying beds.

The observations from the inspection are described in detail below in the Observations section. Photographs were taken during the inspection by Edward Simas and are provided in Appendix B.

Wastewater flows from the collection system via gravity to the in-plant lift station where the influent is then pumped to the Plant headworks (Appendix B, Photographs 1 and 2). A daily inspection checklist is maintained onsite. The Facility utilizes an electronic flow meter that outputs a weekly flow chart.

The influent flows to the headworks of the plant which consists of a mechanical bar screen and a grit chamber (Appendix B, Photographs 3 and 4). The Chief Operator stated that the bar screen is cleaned twice daily, and the grit chamber is cleaned every six (6) months and that an influent sample is collected at the point of discharge in the grit chamber once a month.

Following the headworks, the influent flows to the 150,000-gallon oxidation ditch that is composed of two brush rotors for aeration and mixing (Appendix B, Photographs 5-7). Only one of the brush rotors was in operation at the time of the Inspection causing half of the oxidation ditch to not be operating (refer to Observation #4). The EPA Inspection Team also observed some large solids, including a rubber glove, escaping the headworks and aerator 1. The Chief Operator stated that the second aerator had been inoperable for about a month and was scheduled to be replaced in the week following the Inspection.

All flow passing through the oxidation ditch empties into one of the two clarifiers for settling prior to disinfection. (Appendix B, Photographs 8 and 9). Each clarifier is equipped with four (4) skimmers that pump out solids and re-routes collected solids back to the oxidation ditch. The Chief Operator stated that he sprays the weirs and walls every day. At this point in the Inspection walk-through, the Chief Operator had to unexpectedly leave due to a family emergency and an operator of a different Facility came to step in (hereinafter, Step-In-Operator).

After settling in the clarifier, water is pumped into the trickle-chlorine contact chambers. WVDEP stated that the Facility had experienced one chlorine-tank leak and that the Facility

does not currently have any warning system in place. Following disinfection, treated water flows towards the dechlorination chamber. During the Inspection, the Step-In-Operator stated he was fairly certain samples were collected immediately after de-chlorination and not at the actual outlet because during high flows the outlet is too deep into the river (Appendix B, Photograph 10). A calibration sticker was observed on the digital flow meter with the last calibrated date as 12/10/2021 and the due date for calibration being 12/10/2022.

Following the chlorine contact chamber, the EPA Inspector observed the Facility's aerobic digester and drying beds for dewatering. The Step-In-Operator explained that the aerobic digester collects everything that sank to the bottom of the clarifiers and that the dewatering process occurs naturally with no addition of polymer. Additionally, there is a valve, that once opened, sends any decant from the oxidation ditch to the aerobic digester. This is utilized when the Chief Operator needs to divert decant in order to clean the oxidation ditch. (Appendix B, Photograph 11). Each of the five (5) drying beds is equipped with a valve that can control where sludge goes. Any decant from these drying beds is pumped back to the Facility's lift station (Appendix B, Photograph 12). The Step-In-Operator stated that dewatered sludge is placed in the landfill cell and taken to a landfill once a month (Appendix B, Photograph 13).

III. Observations

The following section summarizes the EPA Inspection Team's observations relative to the Facility's Permit requirements, including the status of certain treatment units, operation and maintenance practices, and the Facility's monitoring and reporting documentation.

Effluent Limitations and Monitoring Requirements

Requirement:

Part A.001 of the Permit outlines discharge limitations and monitoring requirements for each of the Facility's (1) permitted points of discharge.

Observation #1:

Based on the Discharge Monitoring Reports (DMRs) provided by the Facility, the Facility has experienced 13 effluent exceedances since its permit reissuance in August 2020 to July 31, 2022. The parameters exceeded include total kjeldahl nitrogen (TKN), suspended solids percent removal, fecal coliform, pH, and total residual chlorine (TRC).

These exceedances are outlined in Table 3 below.

Table 3: Facility Effluent Exceedances (8/01/2020 – 7/31/2022)

<i>Monitoring End Date</i>	<i>Parameter</i>	<i>Limit Type</i>	<i>DMR Value</i>	<i>Permit Limit</i>
8/31/2020	N	Monthly Avg.	19 mg/L	18 mg/L

8/31/2020	Fecal Coliform	Monthly Geomean (MO GEOMN)	1,600 #/100mL	200 #/100mL
8/31/2020	Fecal Coliform	Daily Max.	1,600 #/100mL	400 #/100mL
8/31/2020	Suspended Solids, % removal	Monthly Average Min.	79%	>= 85%
9/30/2020	Fecal Coliform	Mo. Geomn.	1,600 #/100mL	200 #/100mL
9/30/2020	Fecal Coliform	Daily Max.	1,600 #/100mL	400 #/100mL
10/31/2020	pH	Instantaneous minimum	5.93 SU	>= 6 SU
11/30/2021	TRC	Daily Max.	0.9000 mg/L	<= 0.1 mg/L
11/30/2021	TRC	Monthly Average	0.9000	<= 0
2/28/2022	Fecal Coliform	Daily Max.	1,600 #/100mL	400 #/100mL
2/28/2022	Fecal Coliform	Mo. Geomn.	1,600 #/100mL	200 #/100mL
4/30/2022	Fecal Coliform	Mo. Geomn.	1,600 #/100mL	200 #/100mL
4/30/2022	Fecal Coliform	Daily Max.	1,600 #/100mL	400 #/100mL

Infiltration and Inflow Reports

Requirement:

Part C.22 of the Permit states that the Facility is to implement a program to identify and eliminate sources of inflow and infiltration (I/I). A written report shall be provided on a quarterly basis, as an attachment to the DMR, detailing what has been performed in relation to the implementation and accomplishments of the I/I elimination program.

Observation #2:

In reviewing WVDEP's March 11, 2021 Inspection Report, it was cited that the Facility was not conducting I/I reports (refer to [Appendix C](#)). During the Inspection, it was explained that

the Chief Operator was unaware of that requirement until WVDEP's inspection and was working on developing the I/I program. In a review of the Facility's DMRs, there has been no written report found to be attached to any of the submissions since WVDEP's Inspection in March 2021 through June 2022.

Sewage Sludge Management Reports

Requirement:

Permit Part D.1 requires the Permittee to monitor and report monthly on a Sewage Sludge Management Report form the quantity and quality of sewage sludge produced.

Permit Part D.3 requires the Permittee to submit a Sewage Sludge Monitoring Report form semiannually.

Permit Part D.8 requires that any sewage sludge disposed to a landfill must be a minimum of 20 percent solids. If the sewage sludge is not 20 percent solids, then a bulking agent may be used.

Observation #3:

During the Inspection, it was explained that this Facility underwent a period of layover which resulted in there being no operator onsite. When brought back onsite, the Facility's current Chief Operator was unaware of the requirement to submit Sample Monitoring Reports. In review of the Facility's DMR data from August 2020 – July 2022, the Facility began submitting their semi-annual Sludge Monitoring Report in April of 2022. In review of the Facility's DMRs, it was observed that the Facility has been submitting Sewage Sludge Management Reports as required by the Permit. All reports indicate a percentage of solids greater than the required twenty (20) percent.

Oxidation Ditch Aerator

Requirement:

Part II.1 of the Permit requires the permittee, 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 conditions of the Permit.

Part IV.3(b) of the Permit requires the permittee to give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

Observation #4:

During the Inspection, the EPA Inspection Team observed one of the Facility's two aerators to be broken, causing half of the oxidation ditch to not be operating correctly (Appendix B, Photograph 14). During the Inspection, there was a severe back-up of sludge, scum, and solids (Appendix B, Photographs 15-19). At the time of the Inspection, WVDEP appeared to be

unaware of this failed component. Facility Representatives stated that the second aerator had been broken for approximately a month and that the Facility had the spare parts but was just waiting on more help installing it. During the Inspection, the Chief Operator stated the aerator was scheduled to be fixed later that week and the EPA Inspection Team observed the spare part to be located next to the broken aerator.

Operation and Maintenance

Requirement:

Part II.1 of the Permit requires the permittee, 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 conditions of the Permit. Proper operation and maintenance also include adequate laboratory controls, and appropriate quality assurance procedures.

Observation #5:

At the time of the Inspection, the mechanical bar screen had not yet been cleaned and was observed to be accumulating solids ([Appendix B, Photograph 20](#)).

Observation #6:

In review of WVDEP's March 11, 2021 Inspection, it was cited that there was an oil leak coming from aerator #1. At the time of the Inspection, a paint canister was being used to collect leaking oil from aerator #1 and fresh staining was observed on the pavement ([Appendix B, Photograph 21](#)).

Observation #7:

During the Inspection, the clarifiers were observed to have clusters of denitrifying sludge, as well as pin-floc flowing into the clarifier skimmers. A small amount of pin-floc was also observed to be floating towards the clarifier weirs ([Appendix B, Photographs 22 and 23](#)). The EPA Inspection Team also observed a hose with non-potable water applying a small flow of water into the clarifiers to help push flotables along ([Appendix B, Photograph 24](#)).

Observation #8:

At the time of the Inspection, the EPA Inspection Team observed a 5-gallon bucket adjacent to the dechlorination chamber and sampling location to be uncovered and containing a red liquid. During the Inspection, the Step-In-Operator was unsure what this substance was, but suspected it was soap ([Appendix B, Photograph 25](#)).

Observation #9:

Filled 50-gallon drums were observed to be covered within a shed that did not appear to have any floor drains. The EPA Inspection Team also observed empty 50-gallon drums to be located outside, adjacent to the storage shed. The EPA Inspection Team was unable to ask the Chief Operator processes for disposing of these drums ([Appendix B, Photographs 26 and 27](#)).

Water Quality

Requirement:

Permit Part I.12 states, “This discharge shall not cause or materially contribute to distinctly visible floating or settleable solids, suspended solids, scum, foam or oily slicks; deposits or sludge bank on the bottom...”

Observation #10:

The EPA Inspection Team observed the chlorine chamber was observed to have little clarity with some evident floatables ([Appendix B, Photograph 28](#)).

Observation #11:

The EPA Inspection Team observed the dechlorination chamber was observed to have little clarity ([Appendix B, Photograph 29](#)).

Observation #12:

At the time of the Inspection, flow coming out of the outlet was observed to be clear with minor foaming in the river, directly after the outlet ([Appendix B, Photographs 30 and 31](#)).

Outlet Marker

Requirement:

Part I.13 of the Permit requires the permittee place a permanent marker at the establishment in accordance with Title 47, Series 11, Section 9 of the West Virginia Legislative Rules.

Observation #13:

The EPA Inspection Team observed outlet markers with all required information directly above Outlet 001 ([Appendix B, Photograph 32](#)).

Back-up Auxiliary Power

Requirement:

Part II.1 of the permit requires the operation of back-up auxiliary facilities or similar systems

Observation #14:

At the time of the Inspection, the Facility had one generator onsite. The Step-In-Operator stated that the generator is a manual generator, but that the Facility is working to upgrade the generator to be automatic. ([Appendix B, Photograph 33](#)).

IV. Records Review

The EPA Inspection Team conducted a records review to evaluate the Facility’s

compliance with the Permit. Most of the records and reports required by the Permit were available for review onsite and after the Inspection. The Plant's Discharge Monitoring Reports (DMRs) were obtained electronically and reviewed offsite after the onsite Inspection. The Facility had copies of these reports, as well as all its required attachments, onsite and housed in binders according to year. The following records were reviewed:

- DMR data during the period of August 01, 2020, through July 31, 2022;
- Sewage Sludge Management Records (August 2020, through June 2022);
- Onsite laboratory calibration records;
- Daily handwritten operational checklists;

V. Closing Conference

At the conclusion of the onsite Inspection, the EPA Inspector conducted a closing conference with the site representatives and shared preliminary observations. The EPA Inspector 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 10:30 AM (EDT).