



Town of Bluff City, Tennessee

4391 Bluff City Highway • Bluff City, TN 37618

Telephone: (423) 538-7144

Mailing Address: P.O. Box 70

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JOHNSON CITY
ENV. FIELD OFFICE

May 30, 2024

Mr. Corey Click
Environmental Scientist
Division of Water Resources
Johnson City Environmental Field Office
2305 Silverdale Dr., Johnson City, TN 37601

RE: **Compliance Evaluation Inspection (CEI)**
Bluff City Water Treatment Plant (WTP)
NPDES Permit TN0073423
Sullivan County

Dear Mr. Click

This letter is in response to the compliance evaluation inspection conducted on April 11, 2024 by Mr. Corey Click of the Tennessee Department of Environment and Conservation, Division of Water Resources. The town appreciates the opportunity to assist you as you conduct your inspection of the Bluff City Water Treatment Plant. This Letter will serve as our detailed action plan and proposed implementation schedule addressing the numbered points listed on the May 2, 2024 inspection report.

II. Records/Reports

Various selected records and reports were reviewed during the inspection including discharge monitoring reports (DMRs) from February 2021 - February 2024; Pace Analytical Reports from October 2022, March 2023, and January 2024; LabtronX laboratory instrument calibration records from 2023 and 2024; and pH and chlorine calibration logs from October 2022, March 2023, and January 2024. Parts 7.1 - 8.3 of the general NPDES permit contain monitoring, reporting, and documentation requirements. Also, records documenting laboratory analyses, including proper quality assurance/quality control (QA/QC), would need to be maintained to satisfy permit part 7.2. The following deficiencies were noted.

1. General NPDES Permit for Discharges of Filter Backwash and Sedimentation Basin Washout from WTPs part 8.1 details the requirement for monitoring results to be submitted monthly using NetDMR. According to the permit, these monthly submissions must be submitted no later than 15 days after the completion of the monthly reporting period. However, some of the DMRs submitted were received more than 15 days after the completion of the reporting period including May and October 2021, September 2022, and January 2023. Bluff City WTP personnel must ensure that required reports are submitted by the applicable deadline.

Response: Bluff City WTP personnel have adopted a practice of submitting DMR no later than the 10th of the month to prevent any further reporting violations. This will allow us time to gain access, if NetDMR account is locked or having log on issues. This practice would give us adequate time for submission to be sent in a timely manner.

2. The October 2022, March 2023, and January 2024 DMRs all report a daily minimum pH result of 7.1 SU. These DMRs also report pH daily maximum values of 8.0 SU, 8.1 SU, and 8.1 SU, respectively. During the inspection, Mr. Moultrie stated the backwash discharge sample results for total residual chlorine (TRC) and pH are recorded on the chain of custody (COC) form attached to the analytical report. The daily maximum values reported on the DMRs mentioned above match the pH result reported on the COCs attached to the Pace Analytical reports for each month reviewed. Based on an April 16, 2024 email from Mr. Moultrie, the daily minimum pH Bluff City WTP has reported is a sample of the daily raw residual, which does not relate to the backwash discharge sample. The Bluff City WTP must report pH results relevant to the backwash discharge.

Response: Bluff City WTP personnel will not report any PH residual on the DMR not related to the backwash process. This reporting oversite was due to an issue previously while using net NetDMR. The program was showing an error due to no Maximum PH input and I was unable to sign and submit due to the presence of the error. After being aware of the error by Mr. Click, this issue has been corrected and new procedure has been implemented

3. The March 2023 DMR reports a TRC result of 0.0 mg/L. According to an April 16, 2024 email from Mr. Moultrie, the TRC result recorded on the COC is 0.01 and the 0.0 reported on the DMR is a typographical error. Bluff City must amend the March 2023 DMR.

Response: Bluff City WTP personnel reported on the Chain of Custody a 0.01 mg/L reading and on the DMR we reported a 0.00 mg/L reading. This error was a typo that has been corrected on the March 2023 DMR. The Bluff City staff will do a better job proof reading and checking for errors before submission.

4. As discussed in items 3. above, backwash discharge sample results for TRC and pH analysis are documented on the COC attached to the Pace Analytical Report. Based on COCs reviewed during the inspection, not all the required information as detailed in

General NPDES Permit for Discharges of Filter Backwash and Sedimentation Basin Washout from WTPs part 7.3 is being recorded for pH and TRC.

Response: In order to complete all requirement of NPDES Permit Bluff City WTP staff pledge to record all information required, detailed in the NPDES this will entail the: recording of Flow, PH, and TCR as listed on the COC.

IV. Effluent/Receiving Waters

During the inspection, the discharge location of Outfall 001 was observed. The facility was discharging at the time of the inspection. No distinctly visible floating scum, oil, or other matter was noted in the discharge. The following deficiencies were noted in this program area.

1. As detailed in the last inspection report dated October 5, 2020, a modification was made to the dechlorination system of the backwash discharge which resulted in a change of the outfall location. Due to this modification, the division required Bluff City to submit an updated notice of intent (NOI). The corrective action plan dated November 19, 2020 submitted to the division by Bluff City personnel said that a new NOI would be submitted. The division has no record that an updated NOI was submitted. Bluff City WTP must submit an updated NOI detailing the modifications and new outfall location of the backwash water discharge.

Response: Bluff City WTP Personnel will Submit NOI detailing the modifications that was made and location of new outfall for backwash water discharge.

2. Part 5.1 of General NPDES Permit for Discharges of Filter Backwash and Sedimentation Basin Washout from WTPs requires the permittee to comply with numerical effluent limitations. The notice of coverage for NPDES tracking number TN0073423 details effluent limitations for the Bluff City WTP backwash discharge. Based on DMRs reviewed during the inspection, the Bluff City WTP exceeded effluent limitations on the following occurrences:
 - a. The Aluminum limit of 0.75 mg/L was exceeded during October 2021 and February 2022.
 - b. The total suspended solids limit of 40 mg/L was exceeded during February 2022 and July 2022.
 - c. The settleable solids limit of 0.5 mL/L was exceeded during July 2022.

Response: Bluff City WTP Personnel will monitor the collection of our backwash sample. It is believe that these samples on these dates was collected as a grab sample as soon as backwash tank was open, to collect sample and wasn't given time to flow before collecting causing the elevated results. Typically we'll allow backwash water to flow for before collecting a grab sample. Personnel will review our sampling process and make correction to any deficiencies seen in our sampling process.

V. Laboratory

Part 7.2 item 2. of General NPDES Permit for Filter Backwash and Sedimentation Basin Washout from WTPs requires pollutant analyses be performed in accordance with methods specified in Title 40 CFR Part 136, and part 10.5 requires additional laboratory controls and appropriate QA procedures. Note that updates to 40 CFR part 136 became effective July 19, 2021 and analysis procedures must be updated as necessary to satisfy pertinent requirements. Analysis of monitored parameters pH and TRC are performed on-site. Total suspended solids, settleable solids, iron and aluminum are contracted out to Pace Analytical Laboratory. The following deficiency was noted during the inspection.

1. The Bluff City WTP is not fully implementing the QA/QC requirements as set forth in Title 40 CFR Part 136 for analyses conducted on site. For example, facility personnel could not provide records showing demonstrations of capability (DOCs) being completed by laboratory staff performing analyses on site for pH or TRC. Also, regarding pH analysis, the permittee could provide no documentation showing that duplicate analysis are being performed, and there was no documentation showing initial or continuing calibration verification

In addition, there was no documentation to show the initial or ongoing data collection required for the TRC method detection limit (MDL) study. Current MDL procedure requirements are detailed in 40 CFR 136 Appendix B or EPA Definition and Procedure for the Determination of the Method Detection Limit, Revision 2. Duplicate analyses were also not being performed for TRC analysis. There was also no documentation to suggest the facility is performing method blank and laboratory fortified blank analysis for TRC.

As discussed in 40 CFR part 136 and approved analytical methods specified therein, proper laboratory QA/QC procedures must be detailed in written standard operating procedures (SOPs) and followed by the facility. Please also refer to the divisions guidance documents (see link below), which may be helpful when developing the required laboratory QA/QC program and revising any current laboratory SOPs but cannot substitute for them:

<https://www.tn.gov/environment/program-areas/wr-water-resources/fleming-trainingcenter/resource-center.html> (Note: after clicking on link, go to "Operators" tab then, "Wastewater Treatment Information")

Response: The Bluff City WTP staff was not fully implementing the QA/QC requirements set forth Title 40 CFR part 136. We are currently working on fully implementing these requirements. I do believe we are able to perform what's asked of us, in regards to TRC method of detection, but do see some challenges regarding PH analysis. Mr. Click gave us insight into what we're not doing properly along with an excel spread sheet for determining correlation coefficient. We are working currently to get this process 100% adopted and will be updating our SOP to reflect these procedures for future analysis.

We appreciate the opportunity to respond to the Division's comments. If there are any questions our concerns feel free to contact me at (423)612-4145.

Sincerely,

A handwritten signature in cursive script that reads "Allen Moultrie".

Allen Moultrie

Public Works Supervisor

