



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
KNOXVILLE ENVIRONMENTAL FIELD OFFICE

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October 18, 2022

Mr. Shane Snoderly, Dir. of Public Works & Eng.

e-copy: ssnoderly@cityofalcoa-tn.gov

City of Alcoa

725 Universal Street

Alcoa, TN 37701

RE: **Compliance Evaluation Inspection**

Alcoa Water System

NPDES Permit No. TN00055204

Blount County

Dear Mr. Snoderly:

On September 28, 2022, personnel from the Division of Water Resources (DWR) visited the Alcoa Water Treatment Plant (WTP) and performed a Compliance Evaluation Inspection (CEI) of the filter backwash water. The inspection consisted of a records review to document the operational performance of the system and an on-site inspection of the facility. The Division would like to thank Mr. T.J. Emory, along with all staff met during the inspection, for their courtesy, willingness to work with the Division, and timely responses to Division requests.

As a result of the inspection the following comments, deficiencies, and/or recommendations have been noted:

1. Site Review

The Alcoa WTP utilizes membrane filtration with a design capacity of 16.0 MGD, which was operational at the time of inspection. The plant's source is the Little River. Reject flow from the membrane filters travels to two concrete backwash settling basins, which can operate independently. Settled water discharges from the basins to a secondary lagoon before being discharged to the Little River at mile 9.0. Both basins and the lagoon appeared to be in good condition at the time of inspection. NPDES signage requirements are being met in accordance with the permit and the area around the outfall looked to be well maintained.

2. Records & Reports

The current NPDES permit became effective on October 1, 2020 and expires August 31, 2025. The permit requires sampling discharge once per month for Total Suspended Solids (TSS), pH, Aluminum, settleable solids, and total chlorine residual. Instantaneous flow is also required and calculated from plant water flow and usage. Monthly Discharge Monitoring Reports (DMRs)

have been submitted as required and no permit limit exceedances have been reported during the survey period. DMRs have been submitted via netDMR since 2016 and all original testing records were available on-site for review.

Total chlorine and pH are tested on-site by Alcoa Water System personnel. All other parameters are sent to a third-party laboratory, typically Microbac, for analysis. Equipment and standards used for analyses were in good condition. System personnel are to be commended for conducting daily calibrations of the pH meter and checks of the bench top equipment used for total chlorine testing.

3. Sludge Handling

Alcoa Water System dredges the backwash basins once a year and pumps the sludge to the raw water impoundment used with the old conventional water treatment plant. The impoundment is out of service and the sludge is being used as fill material to close the impoundment, which is an actively regulated safe dam site designated with an identification number of 05-7014.

General Observations, Comments, and/or Other Recommendations

It was noted that all records were well organized and available for review. Again, I would like to thank facility personnel for their assistance and courtesy. If you have any questions or need additional information, please contact me at the Knoxville Environmental Field Office. My telephone number is (865) 340-6341 or email at Greg.Mize@tn.gov.

Sincerely,



Greg Mize, Environmental Consultant
Knoxville Environmental Field Office
Division of Water Resources

cc: Mr. T.J. Emory, Water Plant Supv., Alcoa Water System (e-copy)
DWR, Nashville Central Office (e-copy)