

NAME OF THE WATER UTILITY City of Alcoa

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

MAY 05 2023

NAME OF THE WATER TREATMENT PLANT Alcoa Membrane WTP

Division of Water Supply

COUNTY Blount

PWSID# 000007

COMPREHENSIVE MONTHLY OPERATION REPORT

April-2023

Date	Log Removal Values						Filter Operation Data (NOTE: ALL TMP VALUES ARE NEGATIVE)							Disinfection and CT Values										Microbiological Examinations Plant & Distribution												
	Train 1	Train 2	Train 3	Train 4	Train 5	Train 6	Plant Hours	Train 1 - TMP, psi	Train 2 - TMP, psi	Train 3 - TMP, psi	Train 4 - TMP, psi	Train 5 - TMP, psi	Train 6 - TMP, psi	Reject Gallons (x 1000)	First Disinfection Sequence					Second Disinfection Sequence					Total Inactivation Ratio CT		Dist Sample 1 CFU	Dist Sample 2 CFU	Dist Sample 3 CFU	Free Cl ₂ mg/L Sample site #1	Sample site # 1	Free Cl ₂ mg/L Sample site #2	Sample site # 2	Free Cl ₂ mg/L Sample Site #3	Sample site #3	
	C. Free Cl ₂ - End of Sequence	T. Contact Time in Minutes	PH - End of Sequence	CT - Calculated	CT - Required	C. Free Cl ₂ - End of Sequence	T. Contact Time in Minutes	PH - End of Sequence	CT - Calculated	CT - Required	Total Inactivation Ratio CT Calc / CT Req	Dist Sample 1 CFU	Dist Sample 2 CFU	Dist Sample 3 CFU	Free Cl ₂ mg/L Sample site #1	Sample site # 1	Free Cl ₂ mg/L Sample site #2	Sample site # 2	Free Cl ₂ mg/L Sample Site #3	Sample site #3																
1	4.48	4.52	4.45	4.61	4.50	4.43	17	1.86	1.47	2.39	1.74	1.96	2.06	593																						
2	4.53	4.60	4.42	4.59	4.47	4.42	16	1.90	1.53	2.33	1.73	1.98	2.18	581																						
3	4.54	4.62	4.44	4.62	4.50	4.56	24	1.87	1.49	2.51	1.67	1.85	1.96	694																						
4	4.56	4.65	4.60	4.65	4.47	4.45	24	1.78	1.37	2.24	1.67	1.85	2.04	671																						
5	4.62	4.49	4.65	4.60	4.51	4.28	24	1.81	1.43	1.58	1.69	1.95	2.14	820																						
6	4.54	4.65	4.63	4.63	4.51	4.47	24	1.73	1.34	1.52	1.63	1.81	2.00	755																						
7	4.59	4.65	4.64	4.61	4.52	4.47	24	1.54	1.49	1.58	1.68	2.02	2.00	706																						
8	4.59	4.65	4.64	4.63	4.50	4.47	14	1.36	1.03	1.30	1.30	1.51	1.58	386																						
9	4.60	4.65	4.64	4.64	4.52	4.49	24	1.38	1.38	1.26	1.54	1.57	1.66	387																						
10	4.58	4.65	4.64	4.61	4.52	4.49	24	1.71	1.73	1.43	1.53	1.75	1.83	705																						
11	4.61	4.65	4.64	4.63	4.52	4.49	24	1.61	1.36	1.42	1.89	1.78	1.82	698																						
12	4.63	4.65	4.63	4.65	4.41	4.46	23	1.34	0.98	1.48	1.28	1.79	1.89	725																						
13	4.57	4.65	4.63	4.62	4.50	4.48	24	1.88	1.13	1.68	1.73	1.99	2.08	779																						
14	4.56	4.65	4.63	4.61	4.50	4.46	19	1.92	1.23	1.78	1.56	2.15	2.15	657																						
15	4.59	4.65	4.61	4.63	4.56	4.48	24	1.93	1.23	1.80	1.86	2.14	2.25	829																						
16	4.56	4.65	4.61	4.60	4.51	4.44	24	1.51	0.98	1.40	1.71	1.93	1.95	756																						
17	4.55	4.65	4.63	4.61	4.51	4.49	24	1.39	1.30	1.40	1.48	1.69	1.73	716																						
18	4.63	4.65	4.63	4.61	4.51	4.49	24	1.35	1.68	1.72	1.83	2.09	2.09	763																						
19	4.41	4.65	4.63	4.65	4.52	4.48	21	1.28	1.32	1.66	1.56	2.03	1.84	723																						
20	4.57	4.65	4.59	4.59	4.49	4.46	24	1.24	1.04	1.48	1.56	1.78	1.83	765																						
21	4.56	4.65	4.60	4.58	4.49	4.46	24	1.07	1.07	1.45	1.51	1.48	1.53	751																						
22	4.51	4.63	4.59	4.60	4.40	4.46	24	1.23	0.98	1.43	1.45	1.65	1.87	747																						
23	4.58	4.64	4.59	4.56	4.49	4.44	24	1.18	0.91	1.35	1.46	1.67	1.97	674																						
24	4.58	4.65	4.58	4.58	4.49	4.46	24	1.29	1.04	1.45	1.54	1.72	1.78	775																						
25	4.58	4.65	4.59	4.57	4.41	4.46	24	1.31	1.02	1.48	1.53	1.73	1.79	777																						
26	4.59	4.65	4.58	4.58	4.41	4.40	24	1.33	1.25	1.68	1.73	1.98	2.05	829																						
27	4.56	4.63	4.56	4.56	4.45	4.43	24	1.21	1.48	1.67	1.75	1.94	2.01	762																						
28	4.58	4.65	4.59	4.56	4.47	4.45	15	1.38	1.11	1.53	1.59	1.82	1.83	508																						
29	4.57	4.65	4.61	4.58	4.47	4.34	24	1.27	0.94	1.47	1.80	1.69	1.75	740																						
30	4.57	4.65	4.57	4.58	4.48	4.45	24	1.46	1.26	1.61	1.66	1.85	1.93	828																						
31																																				
TOT	136.99	139.08	137.84	138.14	134.61	133.61	677	45.12	37.57	49.08	48.66	55.15	57.59	21102																						
AVE	4.57	4.64	4.59	4.60	4.49	4.45	23	1.50	1.25	1.64	1.62	1.84	1.92	703																						
MAX	4.63	4.65	4.65	4.65	4.56	4.56	24	1.93	1.73	2.51	1.89	2.15	2.25	829																						
MIN	4.41	4.49	4.42	4.56	4.40	4.28	14	1.07	0.91	1.26	1.28	1.48	1.53	386																						

COST OF PRODUCTION	
(a) Cost of Personnel	\$78,591
(b) Cost of Chemicals	\$7,596
(c) Cost of Energy	\$42,083
(d) Insurance & Misc. Cost	\$19,651
(e) Total Production Cost	\$147,921
(f) Cost per MG Water Treated	\$704.45

(a) Type of Filters	Membrane Vacuum
(b) Number of Filter Trains	6
(c) Filter Area - Sq Ft. (each)	76160
(d) Total Area - Sq Ft.	456960
(e) Filter Rate, gfd	35.0
(f) Filter Rate, gfd	
Total Rated	
(g) Filter Capacity	16,000,000
GPM	1,111

REMARKS: _____

NAME OF THE WATER UTILITY

City of Alcoa

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

MAY 05 2023

NAME OF THE WATER TREATMENT PLANT

Alcoa Membrane WTP

Division of Water Supply

COUNTY

Blount

PWSID# 000007

COMPREHENSIVE MONTHLY OPERATION REPORT

Month/Year:

April-2023

Date	Raw water treated X 1000 Gallons	Finished water X 1000 Gallons	Permeate water X 1000 Gallons	Raw Water Temperature °C	PHYSICAL AND CHEMICAL CHARACTERISTICS												CHEMICALS USED																				
					Turbidity NTU						Cl ₂ mg/L		Alkalinity mg/L		Hardness mg/L		pH			Fluoride mg/L			Calculated Dosages mg/L					Pounds per 24 Hours									
					Raw Turbidity NTU	FINISHED WATER TURBIDITY MUST BE MEASURED EVERY 4 HOURS AND RECORDED					Top of Filter	Lowest Plant Effluent	Total Raw	Total Finished	Raw	Finished	Raw	Mixed	Finished	Raw	Finished	Distribution	ACH	Pre Cl ₂	Post Cl ₂	Fluoride	Caustic Soda	ACH	Pre Cl ₂	Post Cl ₂	Fluoride	Caustic Soda					
						12-4	4-8	8-12	12-4	4-8																							8-12				
1	5860	5300	5750	15	22	OFF	.02	.01	.01	.01	.01		2.08	64	67	65	68		7.9	7.8	8.1		.79			7		3.00	0.60	2.1			342		144	151	403
2	5780	5240	5320	16	31	.02	.02	.01	OFF	.02	.01		1.99	59	65	63	56		7.7	7.8	8.0		.79			9		3.30	0.60	2.2			434		146	140	390
3	6910	6220	6340	14	8	.02	.01	.02	.02	.01	.01		2.08	58	59	60	60		7.8	7.7	8.0	0.02	.70	.66		6		3.10	0.60	2.2			346		164	167	465
4	6670	6000	6180	13	6	.01	.01	.01	.01	.01	.02		1.95	67	63	68	65		7.9	7.6	8.0		.67	.66		6		3.00	0.60	2.1			334		155	163	433
5	8160	7320	7530	17	6	.02	.01	.02	.02	.02	.02		2.02	64	63	63	63		7.7	7.6	8.1		.69	.66		6		3.00	0.60	2.0			408		188	198	502
6	7520	6810	6940	18	6	.02	.02	.02	.02	.02	.02		2.00	65	64	66	65		7.6	7.7	8.0		.69	.65		6		2.90	0.60	1.5			376		168	183	347
7	7030	6340	6900	17	6	.02	.02	.02	.02	.02	.02		1.95	68	66	67	68		7.6	7.7	8.0		.69			6		3.00	0.60	1.4			352		173	182	322
8	3830	3470	3550	16	6	.02	.02	OFF	OFF	.02	.02		2.06	69	64	69	69		7.6	7.7	8.0		.71			6		3.10	0.60	1.4			192		92	93	166
9	3830	3470	6190	14	7	.02	.02	.03	.03	.02	.02		2.06	60	61	62	62		7.6	7.7	8.0		.72			6		3.20	0.60	1.4			192		165	163	289
10	7020	6290	6410	14	6	.02	.02	.02	.02	.02	.01		2.12	62	62	68	68		7.7	7.7	8.0	0.13	.67	.66		6		3.10	0.60	0.6			351		166	169	128
11	6950	6210	6400	15	5	.01	.01	.01	.02	.02	.02		1.96	60	63	61	59		7.7	7.7	7.8		.66	.64		6		3.00	0.60				348		160	169	
12	7220	6570	6700	15	4	.02	.02	.02	.02	.02	.02		1.93	58	57	58	58		7.7	7.7	7.8		.65	.54		6		3.00	0.60				361		168	176	
13	7760	7020	7180	15	5	.02	.02	.02	.02	.02	.02		2.10	58	57	58	57		7.9	7.7	7.8		.66	.63		7		3.00	0.60				453		180	189	
14	6540	5950	6080	16	6	.02	.02	.02	.02	.02	.02		2.08	57	57	58	57		7.9	7.6	7.8		.68	.63		6		2.90	0.60				327		147	160	
15	8270	7460	7550	16	30	.02	.02	.02	.02	.02	.02		2.02	70	71	66	67		8.0	7.5	7.7		.70			8		3.20	0.60	1.0			552		201	199	252
16	7530	6840	6950	17	11	.02	.02	.02	.02	.02	.02		1.95	71	67	74	76		8.0	7.6	7.8		.67			6		3.30	0.60	1.0			377		191	183	232
17	7130	6120	6230	12	8	.02	.02	.02	.02	.02	.02		2.12	65	65	64	66		7.9	7.7	7.9	0.06	.66	.56		6		3.20	0.60	1.0			357		166	164	208
18	7590	6490	6694	16	7	.02	.02	.02	.02	.02	.02		2.10	65	64	66	64		7.9	7.8	7.9		.70	.60		6		3.10	0.60	1.0			380		173	176	223
19	7150	6440	6580	16	6	.02	.02	.02	.02	.02	.02		2.17	72	67	76	75		7.9	7.8	7.9		.73	.62		6		3.00	0.60				358		165	173	
20	7620	6880	6970	17	5	.02	.02	.02	.02	.02	.02		1.98	71	73	72	71		8.0	7.8	7.9		.74	.57		6		2.90	0.60				381		169	184	
21	7480	6760	6980	18	5	.02	.02	.02	.02	.02	.02		1.92	70	68	68	68		8.0	7.8	7.9		.66	.64		6		3.00	0.60				374		175	184	
22	7440	6760	6800	18	6	.02	.02	.02	.02	.02	.02		2.04	70	68	69	68		8.1	7.7	7.9		.61			6		3.00	0.60				372		170	179	
23	6710	6100	6180	17	7	.02	.02	.02	.02	.02	.02		1.95	68	67	67	68		7.8	7.7	7.8		.59			6		3.10	0.60				336		160	163	
24	7720	6990	7130	15	5	.02	.02	.02	.02	.02	.02		1.94	67	67	67	67		8.0	7.8	7.9	0.06	.58	.59		6		3.10	0.60				386		184	188	
25	7740	7000	7140	14	5	.02	.02	.02	.02	.02	.02		2.05	68	68	67	68		8.1	7.8	7.9		.61	.65		6		3.10	0.60				387		185	188	
26	8260	7460	7660	14	4	.02	.02	.02	.02	.02	.02		2.13	68	68	68	69		8.0	7.8	7.9		.62	.63		6		3.00	0.60				413		192	202	
27	7600	6910	6950	14	4	.02	.02	.02	.02	.02	.02		2.12	68	69	68	72		7.8	7.7	7.8		.62	.66		6		3.00	0.60				380		174	183	
28	5050	4590	4610	15	4	.02	.02	.02	.02	OFF	.02		1.95	68	70	67	70		7.8	7.7	7.9		.61	.58		6		3.00	0.60				253		115	121	
29	7360	6640	6820	16	5	.02	.02	.02	.02	.02	.02		2.01	69	68	69	70		7.9	7.7	7.8		.62			6		3.00	0.60				368		171	180	
30	8250	7460	7590	17	5	.02	.02	.02	.02	.02	.02		1.95	71	70	69	68		8.0	7.7	7.8		.61			6		3.00	0.60				413		190	200	
31																																					
TOT	209980	189110	196304	467	240	0.56	0.56	0.55	0.55	0.55	0.56		60.78	1968	1957	1984	1981		235.0	231.2	237.1	27	20.07	11.83		187		91.6	18.00	20.9			10904		4995	5170	4362
AVE	6999	6304	6543	16	8	0.02	0.02	0.02	0.02	0.02	0.02		2.03	66	65	66	66		7.8	7.7	7.9	0.07	0.67	0.62		6		3.05	0.60	1.5			363		167	172	312
MAX	8270	7460	7660	18	31	0.02	0.02	0.03	0.03	0.02	0.02		2.17	72	73	76	76		8.1	7.8	8.1	0.13	0.79	0.66		9		3.30	0.60	2.2			552		201	202	502
MIN	3830	3470	3550	12	4	0.01	0.01	0.01	0.01	0.01	0.01		1.92	57	57	58	56		7.6	7.5	7.7	0.02	0.58	0.54		6		2.90	0.60	0.6			192		92	93	128

CHEMICALS USED	BRAND	ANALYSIS	POUNDS USED	COSTS	
				per lb	per month
ACH	USALCO - DeIPAC XG	100%	10904	\$0.38500	\$4,197.87
Chlorine	CORECHEM, Inc.	100%	4995	\$0.3425	\$1,710.82
Fluoride	UNIVAR	24%	5170	\$0.20300	\$1,049.51
Caustic Soda (25%)	UNIVAR	25%	4362	\$0.58500	\$637.87
TOTAL					\$7,596.07

I certify that the data provided accurately represents the water quality, quantity, treatment, operational practices, and other activities for the reporting period specified herein.

Certified Operator Name Tyrel J. Emory

Certified Operator Signature Tyrel J. Emory



**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES, COMPLIANCE AND ENFORCEMENT UNIT**

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

MONTHLY MICROBIOLOGICAL and DISINFECTANT MONITORING REPORT

Public Water System Name <u>City of Alcoa Water Plant</u>	Phone: <u>865-380-4921</u>
Address <u>223 Associates Blvd. Alcoa, TN 37701</u>	County: <u>Blount</u>

Bacteriological Monitoring ⁽¹⁾

PWSID	Contaminant ID	Analysis Method	Sample Period Begin	Sample Period End
0 0 0 0 0 0 7	3 1 0 0	9 2 2 3	0 4 0 1 2 3	0 4 3 0 2 3
Total Number Of Routine Distribution Samples Analyzed	Total Number Of Positive Samples Analyzed ⁽²⁾	Total Number Of Repeat Samples Analyzed ⁽²⁾	Laboratory ID	Laboratory Name
0 3 0	0 0 0	0 0 0	0 3 0 0 2	<u>Alcoa Water Plant</u>
Date of First Sample		Date of Last Sample		
0 4 0 3 2 3		0 4 1 8 2 3		

Disinfectant Residual Monitoring ⁽³⁾

Lowest Residual Measured (mg/L)	Average Residual Measured (mg/L)	Number of Samples below 0.2 mg/L	% of Samples 0.2 mg/L or higher
1 . 6 7	2 . 0 6	0 0 0	1 0 0 . 0

Notes

- (1) This form is to be submitted for systems reporting 10 or more bacteriological compliance samples during the reporting period.
- (2) All positive and repeat samples must be reported on Form CN-0800, Bacteriological Analysis Detail.
- (3) Systems supplying chlorinated water must monitor disinfectant residuals at the same locations and frequencies as total coliform sampling is required.

Administrative Information

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Responsible Official: *Tyrel J. Emery* Phone: (865) 380-4921
 Program Contact: _____ Phone: () _____
 Technical Contact: _____ Phone: () _____

Return to: Tennessee Division of Water Resources, Compliance and Enforcement Unit, William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243-1102



**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES, COMPLIANCE AND ENFORCMENT UNIT**

**INTERIM ENHANCED SURFACE WATER TREATMENT RULE
FILTER PERFORMANCE REPORT ⁽¹⁾**

MAY 05 2023

PUBLIC WATER SYSTEM NAME AND ADDRESS

City of Alcoa Water Plant
223 Associates Blvd.
Alcoa, TN 37701

PWSID #							ENTRY POINT	SAMPLE PERIOD				TOTAL HOURS PLANT OPERATED THIS MONTH	LABORATORY ID														
0	0	0	0	0	0	7	<input type="checkbox"/>	0	4	0	1	2	3	0	4	3	0	2	3	6	7	7	0	0	0	1	5
REPORTABLE SAMPLES ⁽²⁾ REQUIRED		TAKEN		NUMBER OF REPORTABLE SAMPLES LESS THAN OR EQUAL TO THE LOWER NTU STANDARD ⁽³⁾			PERCENT OF REPORTABLE SAMPLES LESS THAN OR EQUAL TO THE LOWER NTU STANDARD			NUMBER OF REPORTABLE SAMPLES EXCEEDING THE UPPER NTU STANDARD ⁽⁴⁾ (LIST DATES ON BACK)			HIGHEST FINISHED WATER TURBIDITY THIS MONTH														
1	7	5	1	7	5	1	7	5	1	0	0	.	0	1	0	0	0	0	0	.	0	3	2				

Notes:
 (1) This form applies to filtration systems utilizing either a surface water supply or a source that has been designated groundwater under the direct influence of surface water.
 (2) Systems utilizing cartridge filtration must at a minimum, measure turbidity once per day while treating water. Systems required to measure and record finished water turbidity every 4 hours that the plant is in operation, shall report the highest value measured during each 4-hour period. Systems utilizing continuous monitoring turbidimeters shall report the highest recorded value for every 4 hour period.
 (3) NTU standards vary depending on the type of filtration treatment provided, and include a lower limit that must be met in 95% of the reportable samples, and an upper limit that cannot be exceeded without receiving a treatment technique violation. Use the lower NTU standard applicable to this facility for this calculation.
 (4) Indicate the number of reportable samples that exceeded the upper NTU standard. On the back of this form, indicate the dates when a sample exceeded the upper NTU standard, and the date the state was notified of the exceedance.

Did this facility meet the CT requirements for each day it was in operation? Y or N

A. FOR ALL FILTERS AT THIS FACILITY

1. Was turbidity monitored continuously and the results recorded for each filter effluent line? Y or N

2. If the answer to question number 1 is no, was grab sampling conducted for every 4 hours the continuous monitor was out of service?

3. If the answer to question number 2 is yes, was grab sampling conducted for more than 5 consecutive days on any individual filter?

B. FOR ANY FILTER AT THIS FACILITY ⁽⁵⁾

Were any 2 consecutive filter effluent measurements taken 15 minutes apart:

Y or N	Filter Numbers (maximum of four filters)
<input checked="" type="checkbox"/> N	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> N	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> N	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> N	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Note:
 (5) If this facility answered "Yes" to any question listed in Section B. above, then the system must submit a "Monthly Turbidity Exceedance Report" (CN-1196) for the individual filter that met at least one of the conditions listed.

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

PREPARED BY: Tyrel J. Emory DATE: 5/1/23 PHONE: (865) 380-4921 APPROVED BY: Tyrel J. Emory DATE: 5/1/23 PHONE: (865) 380-4921



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES, COMPLIANCE AND ENFORCEMENT UNIT

DISINFECTANT MONITORING REPORT

MAY 05 2023

PUBLIC WATER SYSTEM NAME AND ADDRESS

PWSID #
0 0 0 0 0 0 7

FACILITY ID
T P 0 0 1

City of Alcoa Water Plant

SAMPLE PERIOD
START DATE END DATE

223 Associates Blvd.

0 4 0 1 2 3 0 4 3 0 2 3
m m d d y y m m d d y y

Alcoa, TN 37701

I. SYSTEMS USING CHLORINE OR CHLORAMINES ⁽¹⁾

A. Distribution System Monitoring

Number of Samples Required ⁽¹⁾	Number of Samples Taken	Lowest Residual Measured (mg/L)	Average Residual Measured (mg/L)	Number of Samples below 0.2 mg/L	% of Samples 0.2 mg/L or higher
030	030	1.67	2.06	000	100.0

B. Entry Point Monitoring

Number of Days Residual Measurements Required ⁽²⁾	Number of Days Residual Measurements Taken	Type of Monitoring Conducted	Lowest Residual Measured (mg/L)	Was the Continuous Chlorine Analyzer out of service more than 5 consecutive days while this facility was in operation?
30	30	Grab <input type="checkbox"/> Continuous <input checked="" type="checkbox"/>	1.92	N ("Y" for yes, or "N" for no)

II. SYSTEMS USING CHLORINE DIOXIDE

A. Entry Point Monitoring

Number of Days Residual Measurements Required	Number of Days Residual Measurements Taken	Highest Residual Measured Entering the D.S. (mg/L)	Number of Days Residual Measured > MRDL	Number of Consecutive Days Residual Measured > MRDL

B. Distribution System Monitoring

1. Systems Not Utilizing Disinfection Booster Stations

Date E.P. Sample Exceeded MRDL	Date of Follow-Up Sampling ⁽³⁾	Time of First Sample	Time of Second Sample	Time of Third Sample
		Result (mg/L)	Result (mg/L)	Result (mg/L)

2. Systems Utilizing Disinfection Booster Stations

Date E.P. Sample Exceeded MRDL	Date Follow-Up Sampling ⁽⁴⁾	Closest Customer	Average Point	Maximum Residence Time

Sample Results (mg/L) at:

Notes:

- (1) Disinfection residuals must be measured at the same frequency and locations for all total coliform samples that are taken. The number of required samples is the total number of routine and repeat total coliform samples taken during the reporting period.
- (2) Each day of operation, Subpart H systems and True Ground Water Systems serving more than 3,300 persons must measure chlorine residuals continuously at the entry point to the distribution system. Grab sampling may be conducted at the rate specified in the regulations for systems serving less than 3,300.
- (3) For systems using chlorine dioxide, and not utilizing booster chlorination facilities in the distribution system, if an entry point sample exceeds the MRDL, a three-sample set of measurements must be taken the day after the exceedance at a point closest to the first customer at six-hour intervals. Analysis must be by Ion Chromatography.
- (4) For systems using chlorine dioxide, and which utilize booster chlorination facilities in the distribution system, if an entry point sample exceeds the MRDL, a three-sample set of measurements must be taken the day after the exceedance at the following locations: 1) a point closest to the first customer, 2) a point reflecting the average residence time, and, 3) a point reflecting the maximum residence time. Analysis must be by Ion Chromatography.

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

PREPARED BY Tyrel J. Emory DATE 5/1/23 APPROVED BY Tyrel J. Emory DATE 5/1/23



MAY 05 2023

PUBLIC WORKS AND ENGINEERING DEPARTMENT

Engineering - Fleet - Landfill - Purchasing - Sanitation
Streets & Stormwater - Water & Wastewater - Water Quality

725 Universal Street, Alcoa, Tennessee 37701

(865) 380-4800 FAX (865) 380-4803

**CERTIFIED, RETURN RECEIPT REQUESTED
CONFIRMING FAX**

May 1, 2023

Mr. Jeff Bagwell
Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa Parks Avenue, 11th Floor
Nashville, Tennessee 37243

Re: Microbiological Monitoring Report – Filter Performance Report –
Disinfectant Monitoring Report -
Bacteriological Analysis Report- TUD
City of Alcoa Water Treatment Plant - Blount County
PWSID 0000007

Dear Mr. Bagwell:

Enclosed are the Microbiological Monitoring Report, Filter Performance Report, Disinfectant Monitoring Report, and the Bacteriological Analysis Report for Tuckaleechee Utility District, for the month of April 2023 for the City of Alcoa Water Treatment Plant. Please contact me at (865) 380-4921 if additional information is needed.

Sincerely,

Tyrel J. Emory
Supervisor, Alcoa Water Treatment Plant

TJE: kh

Enclosures: 1. Microbiological Monitoring Report
2. Filter Performance Report
3. Disinfectant Monitoring Report
4. Bacteriological Analysis Report - TUD

cc: Shane Snoderly, Public Works Director, City of Alcoa (w/encls.)
Jenna Williams, Knoxville Environmental Field Office (w/encls.)

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