CITY OF ALCOA

WATER QUALITY REPORT 2019

The City of Alcoa is pleased to present our Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The City of Alcoa's goal is to meet or surpass all federal and state standards for safe drinking water.

Our constant goal is to provide you with a safe and dependable supply of drinking water. That includes efforts to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. We provide water for the City of Alcoa, the northeastern area of Blount County plus Tuckaleechee Utility District.

Our surface water source is the Little River, originating in the Great Smoky Mountains. This is part of the Watts Bar Watershed. A final source water assessment of our watershed with a summary of our susceptibility to potential sources of contamination has been completed. The Tennessee Division of Water Supply considers the Alcoa intake to be of moderate susceptibility. Urban nonpoint pollution is a water quality concern. The Source Water Assessment Plan may be viewed at the Tennessee Department of Environment and Conservation's Web site at http://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html.

FREQUENTLY ASKED QUESTIONS

Is fluoride in my drinking water?
Yes, trace amounts of fluoride occur naturally in water. The City of Alcoa adjusts this to the level recommended by the American Dental Association and the Center for Disease Control and Prevention for optimal dental health. Numerous studies have shown that fluoridated water will aid in the prevention of tooth decay. More information may be found at www.ada.org and www.cdc.gov.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.
Contaminants that may be present in source water:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

INFORMATION ON LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components asscociated with service lines and home plumbing. The City of Alcoa is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

THINK BEFORE YOU FLUSH

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of Tennessee's waterways by disposing in one of our permanent pharmaceutical take back bins. In Blount County, medications may be disposed of at the:

Blount County Justice Center
940 East Lamar Alexander Pkwy
Maryville , TN 37804

As shown in the table, the Alcoa Water system had no violations during 2018, meeting or exceeding all Federal and State requirements. The maximum contaminant levels (MCL's) are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Public participation in decisions that may affect the quality of our water is welcomed at the Alcoa City Commission meetings, held on the second Tuesday of each month at 7:00 p.m. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. If you have any questions or need additional copies of this report please contact Tyrel Emory, Alcoa Water Plant Supervisor, at 865 -380-4921.

IMPORTANT PHONE NUMBERS

New Service…….....……380-4700

Water Trouble or Leaks

8:00 a.m. – 4:30 p.m.…...…..…..380-4800

After Hours and Weekends.…... 380-4921

Questions About a Bill…...…..…380-4700

Alcoa Water Plant……..…..…380-4921

The City of Alcoa routinely monitors for contaminants in your drinking water as required by Federal and State laws. Unless noted otherwise, the following table shows the results of our monitoring for the period of January 1 to December 31, 2018. In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions and comparisons:

Below Detection Limit (BDL) **-** Laboratory analysis indicates that the contaminant is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) **-** One part per million; equivalent to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (µg/l) **-** One part per billion; equivalent to one minute in 2,000 years, or a single penny in $10,000,000.

Nephelometric Turbidity Unit (NTU) **-** Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level (AL) **-** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) **-** A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) **-** The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) **-** The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) **-** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) **-** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Revised Total Coliform Rule (RTCR) - This rule went into effect on April 1, 2016 and replaces the MCL for total coliform with a Treatment Technique Trigger for a system assessment.

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria (RTCR)	No	0	Presence or Absence	0	TT Trigger	Naturally present in the environment.
E. coli Bacteria	No	0	Presence or Absence	0	See Footnote 1	Human and animal fecal waste.
Cryptosporidium 2	No	0.113 avg.	Oocyst / L	N/A	N/A	Naturally present in the environment.
Turbidity	No	0.17 max. 0.03 avg. 100% 3	NTU	N/A	TT - ≤ 0.3 NTU in 95% of monthly measurements	Soil runoff.
Inorganic Contaminants						
Lead 4	No	2.1 2017	ppb	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits.
Copper 4	No	0.066 2017	ppm	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride	No	Range 0.56—0.72 Average 0.66	ppm	4	4	Water additive, which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Sodium	No	6.23	ppm	None	None	Erosion of natural deposits.
Disinfectants						
Chlorine	No	Range 0.84—2.87 Level Detected 2.87 max	ppm	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Organic Contaminants						
Haloacetic Acids 5 (HAA_5)	No	Range 10—50 Highest LRAA 45	ppb	0	60	By-product of drinking water chlorination.
Total Trihalomethanes 5 (TTHM)	No	Range 10—49 Highest LRAA 45	ppb	0	80	By-product of drinking water chlorination.

1: E. coli: A system is in compliance with the MCL for E. coli for samples unless any of the conditions identified in parts 1 through 4 occur.

1. The system has an E. coli-positive repeat sample following a total coliform positive routine sample.
2. The system has a total coliform positive repeat sample following an E. coli-positive routine sample.
3. The system fails to take all required repeat samples following an E. coli-positive routine sample.
4. The system fails to test for E. coli when any repeat sample tests positive for total coliform.

2: Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring of our source water indicated that we detected the presence of Cryptosporidium in 6 of the 9 samples required during 2018. Symptoms of the infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease in a few weeks. However, immune-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. For more information on Cryptosporidium, contact the Safe Drinking Water Hotline (1-800-426-4791).

3: We met the Treatment Technique for turbidity. 100% of all samples were less than 0.3 NTU. Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

4: 0 out of 30 sampling sites exceeded the lead action level and 0 sites exceeded the copper action level.

5: HAA_5 and TTHMs are the highest Locational Running Annual Average (LRAA) for all quarters of 2018.

UCMR4 (Unregulated Contaminant Monitoring) TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Range of detections	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Alcohols	No	BDL	BDL	ppb	N/A		
Haloacetic Acids (HAA6Br)	No	2.48 avg.	1.9—2.77	ppb	N/A		By-product of drinking water chlorination.
Haloacetic Acids (HAA9)	No	23.33 avg.	9.36—40.97	ppb	N/A		By-product of drinking water chlorination.
Germanium	No	BDL	BDL	ppb	N/A		
Pesticides	No	BDL	BDL	ppb	N/A		
Manganese	No	5.7 avg.	4.1—7.3	ppb	N/A		Erosion of natural deposits.

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. For additional information call the Safe Drinking Water Hotline at (800) 426-4791.