



Recently, the City of Columbia was informed by Illinois American Water that tests by the Illinois Environmental Protection Agency (IEPA) resulted in the detection of compounds known as Per-and Polyfluoroalkyl (PFAS). Illinois American Water is the sole provider of water for the City of Columbia and are required to inform all users of the results. Continue to the next page to view the results as provided by Illinois American Water and to view a PFAS fact sheet. Please direct any concerns or questions to the appropriate contacts listed in the report.

Illinois American Water would like to share results from samples that the Illinois Environmental Protection Agency (Illinois EPA) recently collected from our water systems for compounds known as Per- and Polyfluoroalkyl Substances (PFAS). These samples were collected as part of a review by Illinois EPA of water supplies across Illinois. Illinois EPA is requiring Illinois American Water to provide you notice of these sampling results.

PFAS refers to per- and polyfluoroalkyl substances, a class of synthetic chemicals, manufactured for industrial applications and commercial household products such as: non-stick cookware; waterproof and stain resistant fabrics and carpets; firefighting foam and cleaning products. The properties that make these chemicals useful in so many of our every-day products also resist breaking down and therefore persist in the environment. Human exposure to PFAS may be from food, food packaging, consumer products, house dust, indoor and outdoor air, drinking water and at workplaces where PFAS are made or used.

Neither the Illinois EPA nor the U.S. EPA have yet developed enforceable drinking water standards for PFAS. In the interim, Illinois EPA has developed guidance levels to determine if additional investigation or other response action is necessary for the small number of PFAS for which there is appropriate information to do so. The guidance levels are intended to be protective of all people consuming the water over a lifetime of exposure. It is important to understand that guidance levels are not regulatory limits for drinking water. Rather, the guidance levels are benchmarks against which sampling results are compared to determine if additional investigation or other response action is necessary.

Illinois EPA testing has determined that one or more PFAS were detected in our water system at values greater than or equal to the Illinois EPA guidance levels, as provided in the table below.

Illinois American Water East St. Louis					
PFAS Analyte	Acronym	Health-Based Guidance Level (ng/L)	TP03 Collected 8/11/2021	TP03 Collected 09/22/2021	TP03 Collected 10/27/2021
Perfluorobutanesulfonic acid	PFBS	2,100	Non-Detect	Non-Detect	2.3
Perfluorohexanesulfonic acid	PFHxS	140	Non-Detect	Non-Detect	Non-Detect
Perfluorononanoic acid	PFNA	21	Non-Detect	Non-Detect	Non-Detect
Perfluorooctanesulfonic acid	PFOS	14	2.5	2.8	3.1
Perfluorooctanoic acid	PFOA	2	Non-Detect	2.3	2.9
Perfluorohexanoic acid	PFHxA	560,000	2.2	2.1	3.5
Hexafluoropropylene oxide dimer acid	HFPO-DA	560	Non-Detect	Non-Detect	Non-Detect

Nanograms per Liter (ng/L) = Part per Trillion (ppt)

Minimum Reporting Level (MRL)=2.0ng/L

Illinois American Water East St. Louis					
PFAS Analyte	Acronym	Health-Based Guidance Level (ng/L)	TP04 Collected 8/11/2021	TP04 Collected 09/22/2021	TP04 Collected 10/27/2021
Perfluorobutanesulfonic acid	PFBS	2,100	Non-Detect	Non-Detect	Non-Detect
Perfluorohexanesulfonic acid	PFHxS	140	Non-Detect	Non-Detect	Non-Detect
Perfluorononanoic acid	PFNA	21	Non-Detect	Non-Detect	Non-Detect
Perfluorooctanesulfonic acid	PFOS	14	2.1	Non-Detect	2.2
Perfluorooctanoic acid	PFOA	2	Non-Detect	Non-Detect	Non-Detect
Perfluorohexanoic acid	PFHxA	560,000	Non-Detect	Non-Detect	2.2
Hexafluoropropylene oxide dimer acid	HFPO-DA	560	Non-Detect	Non-Detect	Non-Detect

Nanograms per Liter (ng/L) = Part per Trillion (ppt)

Minimum Reporting Level (MRL)=2.0ng/L

The science and regulation of PFAS and other contaminants is always evolving, and Illinois American Water strives to be a leader in delivering reliable, safe, and affordable water service. This is one of the most rapidly changing landscapes in drinking water contamination. We have invested time and effort engaging with other experts in the field to understand PFAS occurrence, fate, and transport in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critical for addressing this issue.

We take water quality and safety very seriously and we are very proud of our water quality record. Illinois EPA has posted on their website information about PFAS in water systems. This includes a review of available water quality information and the collection of additional samples. We are coordinating with Illinois EPA as we work through this process and will continue to inform you regarding the results through our annual water quality reports available at <https://www.amwater.com/ilaw/water-quality/water-quality-reports/>

Additional information regarding PFAS, the statewide PFAS investigation network, and the impact to public health can be found on the Illinois EPA PFAS webpage: <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx>.

The confirmed sampling results for IL American-East St. Louis (IL1635040) are also available on Illinois EPA's Drinking Water Watch system at <http://water.epa.state.il.us/dww/index.jsp>.

If you have questions, please contact:

Illinois American Water 800-422-2782

Illinois Environmental Protection Agency
Barb Lieberoff, Office of Community Relations
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What are PFAS?

Per- and poly-fluoroalkyl substances are a group of thousands of chemicals collectively known as PFAS. Since the 1940s, PFAS have been used in manufacturing, firefighting, water- and oil-resistant products, and many consumer products such as carpet, clothing, cosmetics, and food packaging. Two of the most common compounds within this class, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), stopped being produced in the United States (U.S.) in the early 2000s, but these compounds may still be present in imported goods.

Most people are exposed to these chemicals from water, food, and consumer products. PFAS are very stable and do not break down easily in the environment. They are often referred to as “forever chemicals.”

What are the potential health concerns associated with PFAS exposure?

Studies indicate that exposures to high levels of PFAS contaminated water over time may cause certain adverse health effects. Exposure to PFAS above the recommended Draft Guidance Levels does not necessarily mean that a person will get sick or an adverse health effect will occur. Research on the health effects associated with PFAS is ongoing.

Scientific studies of laboratory animals, as well as studies on human populations exposed to PFOA and PFOS over periods of time, have shown that exposure to PFOA and PFOS above certain levels may result in adverse effects such as:

- increased cholesterol levels
- changes in liver enzymes
- decreased response to vaccines in children
- increased risk of high blood pressure or pre-eclampsia in pregnant women
- small decreases in infant birth weight
- increased risk of kidney or testicular cancer

If you have specific health concerns, please consult your health care professional.

What should you do if PFAS have been detected in your drinking water?

Exposure to PFAS in drinking water can be minimized by

- using bottled water that has been tested for PFAS for drinking, cooking, and preparing infant formula.
- installing filters or treatment systems certified by American National Standards Institute (ANSI) or NSF International for the reduction of PFOA and PFOS. A searchable list is available here: <http://info.nsf.org/Certified/DWTU/>.

Boiling water does not destroy PFAS.

You can safely use your water for bathing and showering as PFAS is not easily absorbed into the skin.

Background

The United States Environmental Protection Agency (U.S. EPA) evaluates the presence of emerging and unregulated contaminants in community water supplies on a national basis pursuant to the Unregulated Contaminant Monitoring Rule (UCMR). U.S. EPA uses the data collected from these sample results to establish new drinking water standards known as maximum contaminant levels or MCLs. Traditionally, U.S. EPA develops MCLs that are then adopted by the states and used to determine if additional actions are needed to respond to contaminant concerns in drinking water. U.S. EPA has started the regulatory process for listing MCLs for PFOA and PFOS.

In 2016, U.S. EPA adopted a Lifetime Health Advisory for PFOA and PFOS of 70 parts per trillion (ppt), both individually and combined when both are present. This is a non-enforceable value intended to provide guidance for evaluating unregulated drinking water contaminants.

Given the concern about these unregulated contaminants, Illinois EPA developed health-based Draft Guidance Levels for PFOA, PFOS, and five other PFAS, perfluorobutanesulfonic acid (PFBS), perfluorohexanesulfonic acid (PFHxS), perfluorononanoic acid (PFNA), Perfluorohexanoic acid (PFHxA) and Hexafluoropropylene oxide dimer acid (HFPO-DA) using the procedures from 35 Illinois Administrative Code 620. In 2020, Illinois EPA also initiated a statewide investigation of all community water systems to determine how commonly PFAS can be found in community drinking water supplies. Illinois EPA will compare the analytical results of this testing with the PFAS Draft Guidance Levels to help community water supplies evaluate future actions that may need to be taken. This data will also be used to aid in the development of future regulatory standards in Illinois.

The confirmed sampling results are available on Illinois EPA's Drinking Water Watch system at <http://water.epa.state.il.us/dww/index.jsp>.

Additional Information

Illinois EPA: <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx>

United States Environmental Protection Agency: <https://www.epa.gov/pfas>

Centers for Disease Control and Prevention: https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html

Agency for Toxic Substance and Disease Registry: <https://www.atsdr.cdc.gov/pfas/index.html>