

Special Announcement



National Aeronautics and
Space Administration

Goddard Space Flight Center
Wallops Flight Facility
Wallops Island, Virginia 23337

No.

Date: September 17, 2020

Subject: IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Consumer Notice of 2020 Annual Tap Water Results Wallops Flight Facility, Main Base

NASA Wallops Flight Facility (WFF) operates two drinking water systems that provide drinking water throughout the Main Base and Wallops Mainland/Island locations. WFF ensures that the drinking water meets state and federal standards. In compliance with State of Virginia regulations and Permits, drinking water is routinely sampled and analyzed for bacteria and metals concentrations. WFF recently completed annual monitoring for lead and copper in drinking water on the Main Base. All drinking water samples were collected from taps prior to water filtration. The results of this testing are as follows:

2020 Annual Main Base Tap Water Lead and Copper Results			
Sample Location	Sample Date	Copper (mg/L)	Lead (mg/L)
A-1	08/03/2020	0.0719	0.00469
A-41	08/03/2020	0.132	<0.002
F-3	08/03/2020	0.504	0.0240
F-10	08/03/2020	0.222	0.0334
F-16	08/03/2020	0.111	<0.002
F-160	08/03/2020	1.350	0.0756
N-162	08/03/2020	0.0464	0.00635
NOAA	08/03/2020	0.0452	<0.002
Q-29	08/07/2020	0.174	0.0479
R-20	08/07/2020	0.134	0.0101

- The < symbol indicates concentrations below the detection capability of the laboratory analytical method.
- Shaded data represent the 90th percentile results from the monitoring period.
- Results in **BOLD** are above the action levels (0.015 mg/L for lead and 1.3 mg/L for copper).

What Do The Sampling Results Mean?

Sampling results are compared to 'action levels' established under the Safe Drinking Water Act by the U.S. Environmental Protection Agency (EPA). EPA set the action levels for lead and copper in drinking water at 0.015 milligrams per liter (mg/L) and 1.3 mg/L, respectively. The action level is the concentration of a contaminant which, if exceeded, triggers treatment, additional sampling, or other requirements. Sample concentrations that exceeded the action levels are shown in bold in the above table. Our Virginia Permit requires tap water concentrations to be below the action levels at the '90th percentile' sample concentration. Since ten samples were collected, the 90th percentile concentration is the second highest concentration (shown shaded in the table above).

The 90th percentile copper concentration was 0.504 mg/L, which is below the action level of 1.3 mg/L. The 90th percentile lead concentration was 0.0479 mg/L, which is above the action level of 0.015 mg/L. This result for lead triggers additional sampling for lead over the next year.

The EPA also set Maximum Contaminant Level Goals (MCLG) for drinking water, which are the maximum concentrations for which there are no known or expected health risks. The MCLGs allow for a margin of safety. Because lead may pose serious health risks, the EPA set the lead MCLG at zero. The MCLG for copper is 1.3 milligram per liter (same as the action level).

What Do We Do at NASA WFF to Ensure Drinking Water Quality?

In addition to routine monitoring, WFF has installed and maintained activated carbon filters on water fountains and kitchen sinks. A filter maintenance program is used to ensure the filters are effective. Additionally, the WFF Facilities Management Branch applies corrosion control measures, which include the addition of Zinc-Orthophosphate to drinking water to further reduce pre-filter lead and copper levels. Operations and maintenance personnel routinely flush water mains and interior building taps to further reduce any lead and copper. WFF's drinking water has been tested after filtration at the tap and demonstrated to be below federal and state drinking water action levels for lead and copper.

You can call the "HELP" desk (x4357) to request that the activated carbon filters in your area be examined and replaced as necessary.

What Are the Health Effects of Lead?

According to EPA and Virginia Department of Health (VDH), exposure to lead can cause serious health effects in all age groups. Infants and children who drink water containing lead could have decreases in IQ and attention span, and increases in learning and behavior problems. Lead exposure among women who are pregnant increases prenatal risks. Lead exposure among women who later become pregnant has similar risks if lead stored in the mother's bones is released during pregnancy. Recent studies suggests that adults who drink water containing lead have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

References: www.epa.gov/lead or www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water#reducehome.

What Are the Sources of Lead?

According to EPA and VDH, lead is a common metal that has been found in many consumer products and is now known to be harmful to human health if ingested or inhaled. It can be found in lead-based paint, air, soil, household dust, food, some types of pottery, and drinking water. EPA estimates that 10 to 20 percent of a person's potential exposure to lead over a lifetime may come from drinking water. Infants who consume mostly formula mixed with lead-containing water can receive 40 to 60 percent of their exposure to lead from drinking water. Lead is rarely found in natural sources of water such as rivers, lakes, wells, or springs.

References: www.epa.gov/lead or www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water#reducehome.

What Can I Do to Reduce Exposure to Lead in Drinking Water?

According to EPA and VDH, lead may work its way into drinking water after the water enters the distribution system and is on its way to consumer's taps. Lead enters drinking water mainly from corrosion of lead-containing plumbing materials. These materials include brass faucets, lead solder on copper pipes, lead pipes, or lead service lines connecting the water main to the inside plumbing. Lead pipes are no longer installed for service lines or in household plumbing, and lead solder has been outlawed in Virginia since 1985.

There are several steps to take to reduce your exposure to lead in drinking water. These include:

- 1. Run your water to flush out lead.** If water hasn't been used for several hours, allow the water to run at the tap for 30 seconds up to 2 minutes before using it for drinking or cooking. The water you run from drinking water taps does not have to be wasted. You can use this water for cleaning purposes or for watering plants. You may want to keep a container of drinking water in your refrigerator after flushing lines, so you don't have to run water every time need it.
- 2. Use cold water for cooking and preparing baby formula.** Do not cook with or drink water from the hot water tap, as lead dissolves more easily in hot water. Do not use water from the hot water tap to make baby food or formula.
- 3. Do not boil water to remove lead.** Boiling water will not reduce lead.
- 4. Look for alternative sources or treatment of water.** Consider purchasing bottled water or a water filter to remove metals. Read the package insert to be sure the filter is approved for reducing metals, or contact the National Sanitation Foundation at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters. If you choose to install a lead removal filter, be sure to maintain and replace the filter device in accordance with the manufacturer's instructions.
- 5. Get your child tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead, if there is a concern over exposure.
- 6. Identify any plumbing fixtures containing lead.** Brass faucets, fittings, and valves manufactured before January 4, 2014, may contribute lead to drinking water, including those advertised as "lead free." Under current law, "lead free" means no more than 0.2 percent lead in solder and flux, and 0.25 percent lead for pipe, pipe fittings, and components. Visit the National Sanitation Foundation Web site at www.nsf.org to learn more about lead-containing plumbing fixtures.

For More Information

Call NASA WFF's Environmental Office at 757-824-1987. For more information on reducing lead exposure in your home and/or the health effects of lead, visit EPA's web site at www.epa.gov/lead, www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water#reducehome, call the National Lead Information Center at 800-424-LEAD, or contact your personal health care provider.

David A. Reth
Director of Management Operations


Signature _____

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Date _____

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