Special Announcement

National Aeronautics and
Space Administration

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

No. 19-2

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Subject: IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Consumer Notice of 2019 Triennial Lead and Copper Drinking Water Results
Wallops Flight Facility – Wallops Mainland/Island

NASA Wallops Flight Facility (WFF) operates a drinking water system that provides drinking water for both the Main Base and Wallops Mainland/Island locations. WFF ensures that the drinking water provided meets state and federal standards. Water is sampled and analyzed for bacteria and metal concentrations periodically, as required by the state permit. WFF recently completed the 2019 triennial monitoring for lead and copper in drinking water on the Mainland/Island complex, as defined in the Virginia Regulations. All drinking water samples were collected from taps without using the water filters. The results of this round of testing are as follows:

Table 1. 2019 Triennial Lead and Copper Drinking Water Results for Mainland/Island

Sample Location	Sample Date	Lead (mg/L) (Action Level 0.015 mg/L)	Copper (mg/L) (Action Level 1.3 mg/L)
LCR01-U55	09/16/2019	< 0.002	< 0.02
LCR02-U30	09/16/2019	< 0.002	0.0927
LCR09-Y55	09/16/2019	< 0.002	0.0964
LCR07-W65	09/16/2019	< 0.002	0.102
LCR11-W40	09/16/2019	< 0.002	0.204

The < symbol indicates concentrations below the detection capability of the laboratory.

What Does This Mean?

Under the authority of the Safe Drinking Water Act, the Environmental Protection Agency (EPA) set action levels for lead and copper in drinking water at 0.015 milligrams per liter and 1.3 milligrams per liter, respectively. The action level is the concentration of a contaminant which, if exceeded, triggers treatment, additional sampling, or other requirements. WFF must ensure that tap water does not exceed action levels at the 90th percentile sample concentration. Since five samples were collected, the 90th percentile value is the average of the first and second highest result. All Mainland/Island drinking water samples were below the action levels.

The EPA also set Maximum Contaminant Level Goals (MCLG) for lead and copper. These are the maximum contaminant levels in drinking water at which there is no known or expected risk to health. 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 Wallops Flight Facility?

WFF has installed activated carbon filters on facility water fountains and kitchen sinks. A filter maintenance program is used to ensure the filters are effective. 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. Additionally, the WFF Facilities Management Branch uses a corrosion control plan which includes the addition of Zinc-Orthophosphate to drinking water to further reduce pre-filter lead and copper levels in WFF's drinking water. Operations and maintenance personnel routinely flush water mains and interior building taps to further reduce any 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), lead can cause serious health problems if too much enters the body from drinking water, or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of the body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy the child receives lead from the mother's bones, which may affect brain development.

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 in many consumer products but 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. This usually happens through the corrosion of materials containing lead in household plumbing. 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 that can be taken to further reduce exposure to lead in drinking water. These include:

1. **Run the 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. This action flushes the lead-containing water from the pipes. The flushed water from drinking water taps does not have to be wasted. This water can be used for cleaning purposes or for watering plants. Fill several containers of drinking water at one time and keep the extra container in the refrigerator, so water does not have to be run every time.

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. Read the package to be sure the filter is approved for reducing lead, or contact the National Sanitation Foundation at 800-NSF-8010 or **www.nsf.org** for information on performance standards for water filters. If using a lead removal filter, be sure to maintain and replace the filter device in accordance with the manufacturer's instructions.

5. **Consider getting tested.** Contact the local health department or healthcare provider to find out how children can be tested for lead, if there is a concern.

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 around your home, and 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.

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Signature

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Date

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