Special Announcement

National Aeronautics and Space Administration

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

No. 15-03

Date: September 29, 2015

Subject: IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Consumer Notice of Tap Water Results
Wallops Flight Facility Main Base

NASA Wallops Flight Facility (WFF) operates a water system that provides drinking water at this location and throughout the Wallops Main Base. WFF ensures that the drinking water provided meets State and Federal standards. Water is sampled pre-filter and is analyzed for bacteria and metal concentrations periodically. WFF recently completed the triennial monitoring event for copper and lead in drinking water as defined in Virginia regulations. The results of this testing are within all State regulations for safe drinking water, and are as follows:

Sample Location	Sample Date	Copper Concentration (Action Level 1.3 mg/L)	Lead Concentration (Action Level 15 µg/L)
LCR01 – F4	08/24/2015	0.04 mg/L – Passed	7.7 µg/L – Passed
LCR02 – F3	08/24/2015	0.02 mg/L – Passed	< 2.0 µg/L – Passed
LCR03 – E2	08/24/2015	0.02 mg/L – Passed	< 2.0 µg/L – Passed
LCR04 – R20	08/24/2015	0.03 mg/L – Passed	< 2.0 µg/L – Passed
LCR05 – B13	08/24/2015	0.02 mg/L – Passed	< 2.0 µg/L – Passed
LCR06 – D1	08/24/2015	0.04 mg/L – Passed	< 2.0 µg/L – Passed
LCR07 – E104	08/24/2015	< 0.020 mg/L – Passed	< 2.0 µg/L – Passed
LCR08 – F16	08/24/2015	< 0.020 mg/L – Passed	< 2.0 µg/L – Passed
LCR09 – F18	08/24/2015	< 0.020 mg/L – Passed	< 2.0 µg/L – Passed
LCR10 – F20	08/24/2015	< 0.020 mg/L – Passed	< 2.0 µg/L – Passed

Copper Concentrations are in milligrams per liter (mg/L) or parts per million (ppm).
Lead Concentrations are in micrograms per liter (ug/L) or parts per billion (ppb).
The < symbol indicates that the concentration was at or below the detection capability of the analytical instrument.

What Does This Mean?

Under the authority of the Safe Drinking Water Act, the Environmental Protection Agency (EPA) set the Action Level for copper in drinking water at 1.3 mg/L or ppm and lead at 15 µg/l or ppb. This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the locations sampled (90th percentile value). The Action Level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that the water system must follow. The 90th

percentile copper concentration for our waterworks is 0.04 mg/L. The 90th percentile lead concentration for our waterworks is < 2.0 µg/L.

Because lead may pose serious health risks (especially for pregnant women and young children), the EPA set a Maximum Contaminant Level Goal (MCLG) for lead in drinking water of zero. The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a significant margin of safety.

What do we do at NASA Wallops Flight Facility?

Historically, activated carbon filters are installed and maintained on water fountains and kitchen sinks. A filter maintenance program is used to ensure the filters are effective. After filtration at the tap, WFF's water has proven to be of the same quality as bottle water. Additionally, the WFF Facilities Management Branch uses a corrosion control plan by adding Zinc-Orthophosphate to drinking water to further reduce the pre-filter lead levels in WFF's drinking water. Operations and Maintenance personnel routinely flush water mains and interior building taps to better reduce any lead.

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?

When humans are exposed to lead, it may accumulate in high levels in the body, resulting in 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. Lead in drinking water can be a special problem for infants, whose diets may be mostly liquids, such as baby formulas or concentrated juices mixed with water. Smaller, fast growing bodies will absorb lead more rapidly than bigger ones, so amounts of lead that will not hurt an adult can be very harmful to a child. Scientists have linked the effects of lead on the brain with lowered IQ in children. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Adults who drink this water over many years may develop kidney problems or high blood pressure.

What Are The Sources of Lead?

The primary sources of lead exposure for most children are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil. Exposure to lead is a significant health concern for young children and infants whose growing bodies tend to absorb more lead than the average adult. If concerned about lead exposure, parents should ask their health care providers about testing children for high levels of lead in the blood.

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

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 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 or until it becomes cold or reaches a steady temperature before using it for drinking or cooking. This flushes lead-containing water from the pipes.

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 formula.

3. **Do not boil water to remove lead.** Boiling water will not reduce lead.

4. **Look for alternative sources or treatment of water.** You may want to 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 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 you are concerned about exposure.

6. **Identify any plumbing fixtures containing lead.** New brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as "lead free." Visit the National Sanitation Foundation Web site at **www.nsf.org** to learn more about lead-containing plumbing fixtures.

For More Information

Call the NASA WFF Environmental Office at 757-824-1941. For more information on reducing lead exposure around your home, or the health effects of lead, visit the EPA's web site at www.epa.gov/Lead, call the National Lead Information Center at 800-424-LEAD, or contact your personal health care provider.

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