Fact Sheet

Results of EPA Sequential Sampling Study in St. Croix, U.S. Virgin Islands December 2023

EPA has completed its ***Sequential Sampling Study.*** The study included investigative sampling that was conducted at 11 homes in St. Croix the week of November 6, 2023. The homes were selected based on the results of the September and October water distribution meter sampling events that may have had elevated lead, and which regularly use the U.S. Virgin Islands Water and Power Authority (WAPA) water. The University of the Virgin Islands partnered with EPA to schedule the November sampling with homeowners and provide a fact sheet to help communicate the sampling procedure. EPA Region 2 collected the samples in coordination with WAPA and the Department of Planning and Natural Resources (DPNR). In total, 119 sequential samples were taken at the kitchen tap at 11 private homes. The number of samples collected from each home depended upon the length of the pipe between the tap and the water main.

Per the sequential sampling protocol, water from these private homes sat unused for at least six hours before the first sample was drawn. Beginning with the water from when the tap was first turned on, samples were taken in specific sized containers one after the other to capture water from specific sections of the pipe. The first two samples captured water sitting in plumbing at the sink while subsequent samples were taken to capture water from areas of the pipe going out to the water main. This well-established technique allows the EPA to identify where lead may be coming from.

Of the 119 samples collected at the 11 homes, three samples showed levels above the EPA's 15 parts per billion (ppb) Lead Action Level. Two of those samples were from the first draw close to the tap (28.8 ppb and 18.4 ppb); the third was from water closer to the distribution meter (23.2 ppb). The two first-draw results of water closest to the tap indicate the lead is likely stemming from the local plumbing within the faucet or aerator. The third result showing levels above EPA's action level was from water from closer to the distribution meter. This indicates the lead is likely stemming from the plumbing components in and around the distribution meter. The home with elevated lead closer to the distribution meter had a stagnation time of four days, versus the other homes with a six-hour stagnation, which may account for the lead levels in that sample.

In general, the EPA Sequential Sampling Study shows that the levels of lead at household taps are far lower than those found at the distribution meters that were sampled in September and October by WAPA, accompanied by EPA, DPNR and UVI. The levels identified at the distribution meters in those prior studies are still a potential source of lead, along with other distribution system components, and WAPA has established a plan to remove lead-containing components, including distribution meters. EPA agrees that steps already underway by the U.S. Virgin Islands to replace components containing lead and assess and optimize corrosion control should reduce the amount of lead leaching into the water. As

discussed with USVI partners, EPA also agrees that WAPA should go on an enhanced Lead and Copper Rule monitoring schedule – increasing the number of samples and testing every six months.

Before residents begin to consume water from the VIWAPA distribution system again, EPA is requesting that USVI regulatory agencies and VIWAPA develop and implement a comprehensive plan to educate the public about steps they can take to reduce their exposure to lead in drinking water. Implementation of this plan will help reduce the risk of lead in the drinking water and allow residents to resume consumption of the water if they follow guidelines provided in the educational campaign.

Additionally, further examination and sampling of the drinking water that is produced in the reverse osmosis plant by Seven Seas and at the water production plant in Richmond shows that the water does not contain concerning levels of lead, but it is corrosive and can contribute to the leaching of lead from lead-containing components in the distribution system, especially when the water is stagnant in piping for long periods of time.

EPA plans a public meeting to update the public. For updates and more information about EPA's work regarding U.S. Virgin Islands drinking water, visit our website.

-end-