

From: Schock, Michael <Schock.Michael@epa.gov>
Sent: Wednesday, October 14, 2015 2:42 PM
To: Henry, James;Howard Croft;Reynolds, Lawrence
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Subject: RE: 3rd Quarter Water Report

Hi, All;

I inquired of one of the national facility engineering managers for VA, with whom I've been working on some building corrosion issues in another state. Here is our input for two of the Health Center questions, which is more oriented towards how water quality (aside from specifically lead) will impact the operation of certain critical equipment. Studies would be suggested on the impact of the upcoming two water quality changes, as to how they would impact the operation of medical and other facilities. Local in-facility pretreatment of water for some uses may be necessary, whether or not it has any lead in it, to prevent scaling or attack on the instruments being washed/sterilized. Stainless steels and other metallic surfaces are not "inert." There are probably process water consultants available, perhaps through contacting the Water Quality Association, who could advise on instrument-specific water pretreatment needs.

Spotting on instruments has been noticed in some applications of boiler steam (likely due to phosphates), as well as staining from corrosion (often from steel plumbing). If any water contains appreciable minerals or substances that can react with scale-forming minerals (like phosphate and carbonate), it will tend to leave deposits, we see this in the sterilizers themselves. The VA medical facility strives to achieve "lead-free," the influent water may have lead in it and there are so many components in the whole plumbing and sterilizer/autoclave systems, that totally lead free is really not achievable. Currently an RO system for sterilizer influent water is being tested, but different equipment manufacturers may have their own specifications for water composition that is compatible with the specific metals and alloys in the plumbing and at the water contact surfaces of their products, which should be consulted.

For what it's worth, I would also add an observation that though I don't know of specific studies, but under the new the Reduction of Lead in Drinking Water Act, new household dishwashers are required to be "lead free" by the definition of the Act.

--Mike

Hamilton Health Center Questions w/ CDC response below:

2. Is it ok to utilize the water for cleaning of instruments?

3. Is it ok to use the water in autoclaving?

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From: Henry, James [mailto:jhenry@gchd.us]
Sent: Wednesday, October 14, 2015 12:55 PM
To: Howard Croft; Reynolds, Lawrence
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Subject: RE: 3rd Quarter Water Report

Hello everyone,

Similar to many of your organizations the Genesee County Health Department has been receiving many specific questions regarding risks from lead. We have partnered with MDEQ's Toxicology Division to try to get some answers. Our research has provided only limited information. Attached are EPA, CDC and a few other documents that have been extremely helpful, but they do not address many of the specific questions. Also, copied below is a CDC response to some of the questions.

Please feel free to comment and add to the list below. If anyone has official, scientific or generally accepted guidance, please share it. I'll compile a comprehensive FAQ document and share it back with the group.

Public FAQ's

- Is it ok to wash fruits and vegetables?
- Is it ok to wash dishes?
- Is it ok to wash hands and then handle or eat food?
- Is it ok to wash clothes? (skin irritations)
- What are risks to pets (any particular pet that may be more susceptible) i.e. canary?

Hamilton Health Center Questions w/ CDC response below:

1. Can Flint River water be used to wipe down surfaces, counter tops?
2. Is it ok to utilize the water for cleaning of instruments?
3. Is it ok to use the water in autoclaving?

Dr. Arias wrote: We know of no formal guidance on this issue. However, lead in water is measured in parts per billion. Ambient contamination of surfaces and metals in general is much higher. Lead is also not well absorbed through skin. Our SMEs would not expect any problems with this practice unless the water is ingested. I'm copying Mary Jean Brown here who would be available if you have additional questions or need some other follow up.