

**To:** Crooks, Jennifer[crooks.jennifer@epa.gov]  
**Cc:** Porter, Andrea[porters.andrea@epa.gov]; Pressman, Jonathan[Pressman.Jonathan@epa.gov]; Wahman, David[Wahman.David@epa.gov]; Triantafyllidou, Simoni[Triantafyllidou.Simoni@epa.gov]; Lytle, Darren[Lytle.Darren@epa.gov]; Poy, Thomas[poy.thomas@epa.gov]; Bair, Rita[bair.rita@epa.gov]; Schock, Michael[Schock.Michael@epa.gov]  
**From:** Deltoral, Miguel  
**Sent:** Tue 4/7/2015 1:11:12 PM  
**Subject:** Re: Lead levels and Chloramine

Hi Jen,

As I mentioned, dissolution of Pb-IV is not a likely issue here. However, in my opinion, the Flint situation is another public health disaster in the works. They were receiving chlorinated/phosphate-treated water from Detroit; they continued to use chlorine/phosphate after the switch to Flint River water with the resultant high TTHMs. Because of the TTHM MCL violation, they start aggressively flushing the distribution system and the health department has noticed a possible uptick of Legionella in and around Flint since the switch to Flint River water. They also propose to switch sources again to Lake Huron water once the (80 mile?) pipeline is completed. I am not sure when they are planning to switch to chloramine disinfection, so that also raises potentially major nitrification, unregulated DBP and other issues. Icing on the cake is that the city of Flint is pre-flushing ahead of collecting lead and copper samples, which almost guarantees that any resultant high lead release from the service lines will be not captured in the sampling. Not sure who's running the circus there, but they need to get a team of knowledgeable folks together to help them evaluate options comprehensively.

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**From:** Crooks, Jennifer  
**Sent:** Monday, April 6, 2015 01:47 PM  
**To:** Deltoral, Miguel  
**Cc:** Porter, Andrea  
**Subject:** RE: Lead levels and Chloramine

So, Andrea explained that the Pb-IV is the hard Pb lining that DC's pipes got from the years of over chlorinating. You said below that you don't think that Flint had any Pb-IV, so Flint will probably not have the lead issues that DC had. But, as you said, any significant changes in the water chemistry, can cause a wealth of problems.

Jen