Study shows Flint, Michigan has "very serious lead in water problem"

James Brewer 15 September 2015

A report by researchers from Virginia Tech University has called drinking water from Flint, Michigan "very corrosive," "causing lead contamination in homes." The university had been contacted by a Flint resident with concerns about lead in the city's drinking water.

That initial contact led to the distribution of 300 sampling kits to Flint residents. By September 8, 252 of the kits—84 percent of those sent—were returned and analyzed by the Virginia Tech research team led by Dr. Marc Edwards. The level of lead in the results compelled the team to announce in its initial findings: "FLINT HAS A VERY SERIOUS LEAD IN WATER PROBLEM." [Emphasis in the original.] Of the 252 samples, 101—over 40 percent, had first draw samples more than 5 parts per billion (ppb). According to the United States Environmental Protection Agency (EPAP), "A first draw sample is a one-liter sample of tap water that has stood motionless in the plumbing pipes for at least six hours and is collected without flushing the tap."

The response of the Flint residents to the sample kits was tremendous. An "astonishing 84 percent" returned their samples by the September 4 Labor Day weekend. This is a clear expression of the urgency and anger felt by the population.

The update continued, "Even more worrisome, given that we could not target 'worst case' homes with lead plumbing that are required for EPA sampling, Flint's 90 percentile lead value is 25 ppb in our survey. This is over the EPA allowed level of 15 ppb that is applied to high risk homes." Calling it a "serious concern indeed," the report notes that "several samples exceeded 100 ppb, and one sample collected after 45 seconds of flushing exceeded 1000 ppb."

The Virginia Tech report advised Flint residents to

"heed EPA information that advises consumers on how to avoid adverse health effects from exposure to excessive lead in drinking water." The report recommends either filtration of tap water with a filter certified to remove lead or else flushing the tap for 5 minutes at full flow rate before using tap water for drinking or cooking.

The urgent tone in this remarkable report deems that the closing paragraphs be cited fully here:

"We do not issue this warning lightly, and note that our concern is based on several lines of evidence. First, scientifically, we **predicted** based on past research that the Flint River water chemistry would create a serious lead in water problem. Second, we confirmed the very high corrosivity of the Flint River water for lead in our laboratory testing at Virginia Tech. Third, for some reason that no one has yet explained to us, the Flint River water was introduced into the pipe distribution system without any measures (or even a plan) to reduce its corrosivity. We are therefore very perplexed by recent MDEQ [Michigan Department of Environmental Quality assertions that the situation in Flint is normal. Finally, we have the results of our survey of 252 homes conducted with the assistance of Flint consumers. Because of the very serious and permanent health damage that arises from lead exposure, we feel that this problem requires immediate public health warnings intervention—we provide that for Flint consumers in this report.

"Another mystery that must be examined very carefully in the days and weeks ahead: How is it possible, that Flint 'passed' the official EPA Lead and Copper Rule sampling overseen by MDEQ? In our experience, following the EPA site selection criteria targeting homes with the highest risk for lead, the

MDEQ sampling should have found much worse results than our sampling. Instead, MDEQ is asserting that the lead levels in Flint are much lower. Hence, we call on the U.S. EPA and others, to conduct a detailed audit of the 2014 and 2015 LCR sampling round overseen by MDEQ in Flint, to determine if it was conducted consistent with requirements of the law." [Emphasis in original.]

Dr. Edwards is a Professor in the Environmental and Water Resources Engineering program at Virginia Tech University. He has campaigned for years to elevate awareness of the seriousness of the problem of lead in drinking water, as can be viewed in a video posted in 2009.

The question raised in his report must be answered: How did the state of Michigan grant the City of Flint permission to draw water from the Flint River into its pipe system without "any measures (or even a plan) to reduce its corrosivity?" For the answer, one must "follow the money," as the catchphrase goes.

The decision by the City of Flint to sever its 50-year wholesale contract with the Detroit Water and Sewerage Department (DWSD) in March, 2014 was made, with great fanfare by city officials, in the midst of the Detroit bankruptcy proceedings—a political conspiracy that was officially unveiled in July 2013, but that had been years in the making.

The "monetization" of the DWSD was part and parcel of these proceedings. Detroit Emergency Manager Kevyn Orr publicly entertained both "regionalizing" and privatizing the water system, both options aimed at overturning legal protections in the Detroit Charter against profiteering.

Political pressure was exerted on the DWSD to take aggressive measures on behalf of its creditors, both against employees and ratepayers. The implementation of a reorganization plan was begun to eliminate skill levels and transform the workforce into mere factotums.

A brutal campaign of water shutoffs targeted hundreds of thousands of Detroit residents who were in arrears on their water bills to clear the DWSD balance sheets of "bad debt" and make the operation more attractive to prospective buyers.

In the midst of this crisis, water rates had been rising continually over the previous decade and the DWSD's regional customers were complaining.

Flint city officials, then also under an emergency manager, proclaimed that breaking off from the DWSD would save them millions. Never mind that the Karegnondi Pipeline project begun in 2010, to pipe water to the city from Lake Huron, would not be completed until 2016. The decision, to say the least, was reckless.

Dr. Edwards raises a legitimate question. Why did the Michigan environmental authorities approve such a reckless plan?

Economic contingencies should never override the need to protect public health, but that is exactly what is happening in Flint. This is not a local issue, however. The lessons of the Detroit bankruptcy are still being learned. The financial elite has at its beck and call two political parties who are committed to protect its interests.

Republican Governor Rick Snyder was a principal figure in the Detroit bankruptcy plan, along with Democratic Party officials, from Mayor Bing, and now Duggan, all the way to President Obama.

The water infrastructure can only be protected and developed by taking profit interests out of the process. The investment of billions of dollars into a planned and rationally organized system based on human need is required. This is what a socialist program demands.

Dr. Edwards will be speaking about his findings in Flint on Tuesday, September 15 at 6 p.m. at the Saints of God Church, 2200 Forest Hill Ave.



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