



Josh Arneson <jarneson@richmondvt.gov>

Richmond, VT water dept. concern: inadequate chlorination?

Montross, Ben <Ben.Montross@vermont.gov>

Wed, Sep 28, 2022 at 11:42 AM

To: Allen Knowles <knowles.allen3@gmail.com>

Cc: Kendall Chamberlin <kchamberlin@richmondvt.gov>, Stephen Cote <scote@richmondvt.gov>, "Arneson, Joshua" <jarneson@richmondvt.gov>

In response to your last two emails:

The total coliform sampling continues to demonstrate that the system is not vulnerable to contamination. Because of this, our program does not have a basis at the current time to require the Richmond system to increase its chlorine feed/concentration.

A point of clarification: In 4.3.3 of the Water Supply Rule states that water systems *should* be carrying a disinfectant residual of 0.1 mg/L to distant points of the system. I misspoke earlier in haste to get a response drafted when I said that that we require maintenance of 0.1 mg/L when instead it is that we require a measurable/detectable residual when disinfecting, which *should* be 0.1 mg/L or higher.

Coliform sampling is the on-going indicator of system integrity for bacteriological/pathogenic contamination. If there is a total coliform positive sample taken from the distribution system the lab analyzes the sample for presence of e. coli. The system is then required to take 3 follow-up samples and a source water sample from the well (pre-treatment) to identify if contamination is isolated or wide-spread. If e. coli is confirmed to be in the distribution system, it results in a system-wide boil water notice requirement and for our staff or a state contractor to go on site at the system to perform a comprehensive investigation. If e. coli is found in the source there is a robust regulation to address it, including increasing the chlorine feed and rigid management of the minimum free chlorine residual at the entry point/following treatment. The system is required to find and fix the situation that lead to the contamination. If there was e. coli/a boil water notice requirement, the system needs to collect additional coliform samples to document that the work was successful and that the system is free of contamination. Our website has more information about coliform sampling requirements, potential system contamination, and how it can be addressed: <https://dec.vermont.gov/water/drinking-water/water-quality-monitoring/total-coliform>

Ben Montross, *Drinking Water Program Manager* ([he/him](#))

Vermont Department of Environmental Conservation

Drinking Water and Groundwater Protection Division

Public Drinking Water Program

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The Agency of Natural Resources supports telework, and there are times when I may be working from another office location. I am available to connect by phone and email. I am also available to connect in-person upon request.

Note: Written communications to and from state officials regarding state business are considered public records and will be available to the public for review.

From: Allen Knowles <knowles.allen3@gmail.com>
Sent: Wednesday, September 28, 2022 9:48 AM
To: Montross, Ben <Ben.Montross@vermont.gov>

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