

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Total Organic Carbons (TOC) Removal Requirements Not Met 2nd Quarter in a Row.

The City of Benton Harbor (City) Water Treatment Plant was recently cited for a treatment technique violation for inadequate removal of Total Organic Carbon (TOC). We routinely monitor our source water from Lake Michigan for TOC, the amount of carbon found in natural organic compounds. This is our 2nd violation quarter for 2018. TOC removal is calculated as the ratio between the actual TOC removal and the TOC removal requirements. Our TOC removal ratio during the first quarter of 2018 was 0.71, which is less than the standard Safe Drinking Water Act requirement of 1.00.

The TOC levels in source water and treated water are monitored quarterly to measure TOC levels and the removal efficiency of the treatment process. Historically, TOC levels in the source water have been low enough that the determination of TOC removal efficiency has not been necessary. However, in the past year, TOC levels in Lake Michigan have increased, triggering removal requirements. Normal treatment processes were not able to meet the TOC removal requirements in the first quarter of 2018.

What does this mean?

This is not an emergency. This notice is required to be distributed to all customers within 30 days of the violation being identified. If a situation arises where the water is not safe to drink, you will be quickly notified within 24 hours.

TOC has no health effects; however, TOC provides a medium for the formation of disinfection byproducts. These byproducts include **trihalomethanes (THMs) and haloacetic acids (HAAs)**. Drinking water containing these byproducts in excess of the Maximum Contaminant Level (MCL) may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

All drinking water standards for disinfection byproducts in the water delivered to our customers have been consistently met. **The water is safe for drinking and all other uses, and no alternative water sources are needed.**

What is being done?

We are investigating the reason for the increased TOC in our source water and are taking steps to improve the removal efficiency of our treatment process. This will include bench tests to determine the effects of any changes we make. We are implementing changes immediately and expect to make necessary improvements to prevent future violations. The changes have not worked as planned, thus a 2nd Violation. Hopefully we will have success now.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact Michael O'Malley, Water Treatment Plant Superintendent, at momalley@cityofbentonharbormi.gov or call (269) 927-8471, press 2. Between 6:30am to 2:30 pm.

The text above is the required text for the public notice for failure to remove the right amount of TOC.

In some simpler terms: Total Organic Carbon as a group is anything organic that has a Carbon chain in its molecule. There is a whole world of organic carbons in the total group and some of them are in Lake Michigan.

The good TOCs are living things, including human beings; yes we are a bundle of organics, water, and minerals. TOCs are practically all the food we eat and are in nearly all the things of our everyday life.

The bad TOCs are waste products, things used in the industrial world, and certain types of algae in the lake. During the testing there is no difference between good, bad, or otherwise TOCs.

The United States Environmental Protection Agency (USEPA) has set limits and requires a certain reduction of the general group of TOCs that we must try to remove in order to keep from forming additional Chlorine by Products such as Trihalomethanes (TTHMs) and Haloacetic Acids (HAAs). Lake Michigan, which is the source of water we treat for City Drinking Water, has some TOCs in it. Our treatment processes have easily reduced these TOCs until recently. We are working out ways to better reduce them, now that they are higher.

This public notice is to let you know that we are working hard to remove more of them than ever before. As for the potential of Chlorine by Products, they have **still** not changed much, but we keep careful track of them and will find the ways needed to keep these levels as low as we always have, maybe better.

But get this. Lake Michigan has recently yielded low levels of TOCs at 2 mg/L or less. The EPA acknowledges that TOC levels coming into a treatment plant like ours is nearly impossible to remove. And since we go back 12-months for the averages; we will be hard pressed to remove additional TOCs, but we are going to try new treatments. However, this will take time and a lot of effort.

Remember: There is Water Information on the City's new website

Find it at www.bhcity.us and follow the links to Public Works.