



City of South Haven

Water Filtration Plant
539 Phoenix Street • South Haven, Michigan 49090-1499
Telephone (269) 637-0715 • Fax (269) 637-5493

May 3, 2018

To all South Haven Water Customers:

In recent weeks, the City of South Haven received a treatment technique violation notice in regards to our TOC (Total Organic Carbon) removal requirements not being met. We are sending this letter, as well as the attached announcement with more details to all customers of the City of South Haven water systems.

We understand that you may have questions, and we hope this letter answers any questions you may have.

What is TOC (Total Organic Carbon)?

The term TOC refers to the amount of carbon found in natural organic compounds, which are made from the decomposition process of dead plants or marine organisms. Through our treatment process, we remove as much of this as possible, as it helps with minimizing the number of disinfection byproducts created when we make the water safe for drinking. We use chlorine as a disinfectant during our water treatment process to kill bacteria and germs that are naturally present in Lake Michigan. The chlorine reacts with organic matter and produces these disinfection byproducts. Essentially, removing more TOC from the water allows us to use less chlorine, which in turn decreases the byproducts produced as well.

How often does testing occur?

The source water (raw lake water) and treated water (after the filtering process) are monitored quarterly to measure TOC levels and the removal efficiency of the treatment process we use. Historically, TOC levels in the source water have been low enough that determining the effectiveness of the removal process has not been necessary. However, in the past year, TOC levels in Lake Michigan have increased, triggering removal requirements. Due to this, standard treatment processes were not able to meet the TOC removal requirements in the first quarter of 2018.

What does this mean?

Your water is still safe to drink, but we are required by the Michigan Department of Environmental Quality to distribute this notice to all customers within 30 days of the identified violation. If a situation arises where the water is not safe to drink, you will be notified within 24 hours.

By itself, TOC has no adverse health effects. TOC provides a medium for the formation of disinfection byproducts; drinking water containing byproducts in excess of the maximum contaminant level recommended by the EPA may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. Health risks as these are not immediate and are due to long-term exposure. We have remained well below the maximum contaminant levels for these byproducts and continue to take measures to stay well below these levels.

All drinking water standards for disinfection byproducts in the water delivered to our customers are within standards. The water is safe for drinking and all other uses, including cooking and bathing.

What is being done?

Please know that we take water quality very seriously. 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 additions to our bench tests such as jar testing, which will mimic the treatment process on a smaller scale to allow us to determine the effects of any changes we make. We have also adjusted our TOC monitoring from quarterly to monthly to better adapt to the changing conditions of our source water. We are implementing these changes immediately and expect to make necessary improvements to prevent future violations.

If you have any questions or concerns beyond this, please contact me at 269-637-0715. I am more than happy to speak with you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richie Garcia', with a stylized flourish at the end.

Richie Garcia
Water Treatment Plant Superintendent