

**QUESTIONS AND ANSWERS RELATED TO HALOACETIC ACIDS (HAA<sub>5</sub>) IN YOUR  
DRINKING WATER  
APRIL 10, 2017**

QUESTION: WHAT ARE HALOACETIC ACIDS (HAA<sub>5</sub>) AND WHY DO I NEED TO BE NOTIFIED WHEN IT IS PRESENT IN THE DRINKING WATER?

ANSWER: Haloacetic Acids are chemicals that are created in a water distribution system when chlorine used to disinfect water from bacterial contamination reacts with the bacteria (organic material). In other words they are a by-product of the disinfection process. Based upon Environmental Protection Agency (EPA) studies and standards, individuals who drink water containing Haloacetic Acids in excess of the maximum contaminant level (MCL) over many years, may experience problems with their liver, kidneys or central nervous system and may have an increased risk of getting cancer.

QUESTION: HAVE I BEEN PUT AT RISK BECAUSE I DRANK BLOOMFIELD WATER?

ANSWER: No. Based upon the EPA warning, increased risk comes with consuming water with HAA<sub>5</sub>'s over the (MCL) for many years. The Bloomfield water system has not experienced a HAA<sub>5</sub> exceedence in many years. We have been in compliance with the MCL requirements up until now. Therefore, anyone consuming Bloomfield water have not been exposed to drinking water in excess of the MCL for many years since this exceedence is new. However, if you have particular health concerns or have other pre-existing health issues, it is recommended you discuss this notice with your health care professional. Also, the township did have a violation of a second type of chlorine by-product known as trihalomethanes which was resolved in June of 2016 and are we currently compliant with the MCL levels for this by-product.

QUESTION: I GOT SICK IN APRIL WITH SYMPTOMS CONSISTENT WITH FOOD POISONING. DID DRINKING BLOOMFIELD WATER WITH HAA<sub>5</sub>'S CAUSE THIS?

ANSWER: No. Haloacetic Acids do not cause food poisoning or create immediate sickness. Food poisoning is caused by bacteria, such as E. coli or fecal coliform ingested from a variety of sources. Any sickness from Haloacetic Acids would be created through excessive exposure over a long period of time.

QUESTION: IF THE WATER IS SAFE TO DRINK, WHY AM I GETTING THIS NOTICE?

ANSWER: The Environmental Protection Agency (EPA) requires a water system provide this mandatory notice when a water standard is not met. As a customer and consumer of a product (in this case Bloomfield water) you have a right to know what is in the water you are consuming. Receiving this notice is not unlike reading the mandatory ingredient labels, nutritional information and warning labels that are placed on all food products purchased in the United States.

QUESTION: IS THIS NOTICE AND VIOLATION RELATED TO OR THE SAME AS THE NOTICE ABOUT COLIFORM AND TRIHALOMETHANES THAT WE RECEIVED IN THE PAST?

ANSWER: No. These violations are not related. The Bloomfield Water Department has been actively addressing all previous violations through various capital programs to improve our water distribution system (the pipes in the ground). As previously stated, we have maintained compliant water related to haloacetic acids and trihalomethanes since June of 2016. This particular violation may be related to two, brown water incidents that occurred within two weeks of each other in October of 2016. These incidents were the result of work being done by the City of Newark, where we obtain our water and the North Jersey District Water Supply Commission. Introduction of brown water, which contain sediments, are a cause for increased haloacetic acids and other chlorine by-products. Even though the township actively flushed the system to remove these sediments, their presence in the system may have increased our risk for formation of chlorine by-products over the past several months.

QUESTION: WHAT IS BLOOMFIELD DOING TO PREVENT THIS FROM HAPPENING AGAIN?

ANSWER: We purchase our water, fully treated, from the City of Newark. We therefore do not treat or disinfect our water. We have no direct control as to the amount of chlorine added to the water we purchase. Haloacetic Acids normally form in areas of the distribution system where the water has a tendency to move at a slower velocity and not get expelled from the system through normal water use and consumption. This normally happens at dead ends and areas with higher vertical elevations where circulation in the system may be slower. The most effective, immediate thing we can do is flush the system to eliminate or evacuate this water from the system. Hydrants are flushed from the source outward so that the freshly treated water at the interconnections is drawn into the system at a quicker pace. The township is currently flushing hydrants as part of the spring flushing program which began on April 3<sup>rd</sup>. The Engineering Department has been performing capital programs to eliminate some of the problematic, dead-ends in the system. Dead ends are locations where the water does not efficiently circulate through the system thereby creating areas where bacteria and other pollutants can potentially accumulate.

- To date, the following dead-ends have been eliminated:

- Plymouth Court.
  - Pilgrim Court.
  - Bukowski Place.
  - Cook Road.
  - Evans Road.

- Construction is currently underway to eliminate the following dead ends:

- Carlton Terrace.
  - Bromley Place.

Watchung Place.  
Bloomfield Avenue.

A third phase of dead-end elimination is currently under design and should commence in 2017. These improvements represent a capital improvement expenditure of \$2 million.

In addition to watermain looping or dead-end elimination, the township will undertake a watermain lining program to clean and line our 12-inch and 16-inch transmission mains. Many of these lines were constructed in the early 20<sup>th</sup> century and have not been maintained to expected levels. Cleaning and lining of these mains will increase water quality by removing rust deposits and sediment that may have accumulated in the lines over many years which also contribute to the formation of Haloacetic Acids and Trihalomethanes. Normal hydrant flushing helps remove these sediments but not as efficiently as cleaning and lining the mains. This project which will be multi-phased will begin this year. Each phase has an anticipated budget of \$1 million.

QUESTION: THIS VIOLATION HAPPENED IN MARCH. WHY AM I ONLY NOW, IN APRIL, BEING INFORMED OF THIS?

ANSWER: Testing for Haloacetic Acids requires determining a concentration of the substance in micrograms per liter (parts per billion). This type of testing requires a much longer period before results are determined which can be from two to four weeks. Once a violation is confirmed by the NJDEP, a violation notice must be issued and then the notice must be prepared, reviewed and approved before being printed and distributed. Unfortunately, this can take up to thirty days to complete. However, please note that the notice is provided to our customers within the thirty-day notice period required by the NJDEP and EPA.

QUESTION: HAVE I BEEN DRINKING WATER WITH HIGH LEVELS OF TTHM'S SINCE AUGUST?

ANSWER: There is no way to determine that you have been drinking water with high levels of Haloacetic Acids at a specific time or at a specific location within the distribution system. Haloacetic Acids sampling and testing is not a "real time" determination meaning that results are representative of a system only for the date and time the sample is taken. If such a test were taken the next day; the previous day or today, the concentrations would more than likely not be the same. The best representation of what a Haloacetic Acid test does is take a "snapshot" of the system on the day the sample is taken. Furthermore, EPA and state regulations require we take samples at four standard locations every quarter (every three months). These locations are chosen based upon their "hydraulic remoteness" (areas where the least amount of flow in the system is estimated). Therefore it is a snapshot of the system at four specific locations, four times per year. These four "snapshots" are then averaged to come up with the concentration of Haloacetic Acids for the current quarter. This is the process for sampling and testing for Haloacetic Acids. Therefore the concentration in micrograms per liter for which the violation is cited is not a "real time" concentration of this substance within the system

but an overall average based upon four “snapshots at four locations for four quarters. If we do not meet the standard based upon this methodology it indicates that we need to do more to eliminate the cause and bring our averages down. As indicated above, the Bloomfield Water Department has specific plans to remedy the situation.

QUESTION: WHAT ASSURANCE CAN YOU GIVE ME THAT HIS WILL NOT HAPPEN AGAIN?

ANSWER: Unfortunately, as with any water system, there can be no guarantees that this will not happen again. However, the Engineering Department can assure you that we continually sample and test our water in accordance to state and federal regulations. We continue to improve the system through capital programs in an effort to maintain the safety and quality of our water.

QUESTION: IS THER ANYTHING I CAN DO TO FEEL MORE CONFIDENT AND SAFE USING BLOOMFIELD WATER?

ANSWER: As a customer and consumer of our water, we welcome your input and observations related to the water you use. You are our first line of defense in detecting a problem within our distribution system. If you discover or notice any changes to the water such as discoloration, strange odor or taste, low pressure, etc., or if you have any questions related to the water, you should contact the Engineering Department at 973-680-4130 or preferably, via e-mail , directly to the Township Water Operator, Paul Lasek at [plasek@bloomfieldtwpnj.com](mailto:plasek@bloomfieldtwpnj.com). We will do our best to answer your questions in a timely manner.