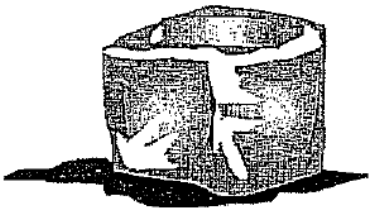
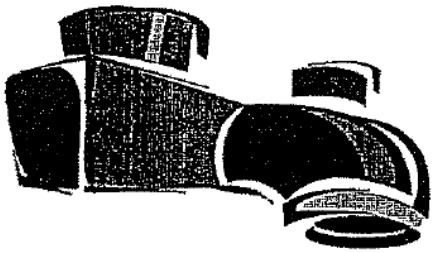
WATER



Trihalomethane (THM) fact sheet



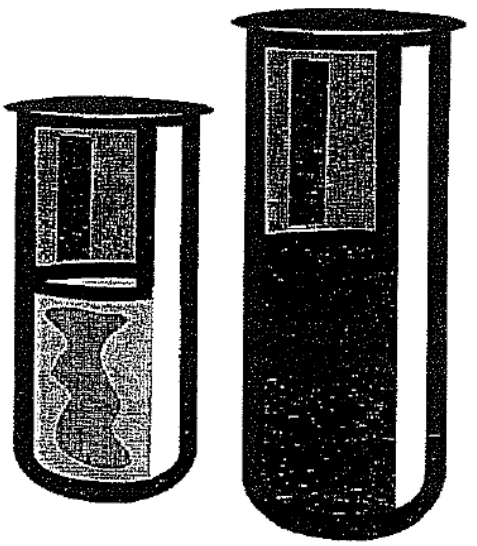
Chlorination has made the U. S. water supply safe from illness produced by bacteria, viruses, and parasites. Fortunately, chlorine disinfection has almost completely eliminated risks of deadly waterborne diseases such as typhoid fever, cholera, and dysentery. However, the chlorination process has also produced byproducts. These disinfection byproducts include a group of chemicals known as Trihalomethanes (THMs). THMs include four chemicals: chloroform, bromodichloromethane, dribromochloromethane, and bromoform. The U.S. Environmental Protection Agency (EPA) has mandated public water systems check for THMs on a regular basis and that the level of THMs in the water should be less than 80 parts per billion (ppb). This is a change for THMs in drinking water; previously the maximum allowable amount was 100 ppb.

Because EPA lowered the amount of THMs allowable in water, many towns in Oklahoma that did not previously have a problem meeting the old standard now find themselves in violation of the new standard. This violation requires that the towns both notify the public that the level of THMs in their water exceeds the new level and take steps to lower the THMs in the water.

EPA has set standards for THMs in water because there is a slight possibility of an increased risk of bladder or colorectal cancer over a lifetime of drinking water with THMs above 80 parts per billion. EPA estimates drinking 2 liters of water containing 100 ppb THMs every day for 70 years could result in 3 extra cases of cancer for every 10,000 people. The slight risk of increased cancer occurs only after decades of drinking water with elevated THMs. There is no immediate risk from the water with THMs above 80 ppb. THMs do not pose a high health risk compared to waterborne diseases, but they are among important water quality issues faced by public water supply systems.

The Oklahoma Department of Environmental Quality (DEQ) is working to help towns that exceed the EPA standard for THMs. There are several ways to reduce THMs in drinking water including changing the disinfection process or filtration. Every solution does involve some cost and time to implement. Typically DEQ enters into a Consent Order with the community that lays out activities and timelines for lowering the THM levels. The community must continue to sample for THMs while the problem is being corrected.

Citizens have the right to know about the quality of their drinking water. They should be aware of problems that may cause a concern for an immediate health problem, such as fecal bacteria, and also of those problems that are a concern over many decades. DEQ will continue to work with all public water supplies in the state to help them maintain compliance with EPA water quality standards and thus provide their citizens with safe, healthy water to drink.



DEQ
OKLAHOMA
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