



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

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NOV 23 2015

CERTIFIED MAIL # 70122920000206611331
RETURN RECEIPT REQUESTED

Mr. Robert Stevenson, General Manager
City of Hannibal
3 Industrial Loop Drive
P.O. Box 1589
Hannibal, MO 63401

RE: Hannibal Public Water System MO2010344

Dear Mr. Stevenson:

The Department of Natural Resources would like to clarify some information that has appeared in the media recently regarding recent upgrades to the city of Hannibal's water treatment plant. There have been many articles and editorials over the last few months that have chronicled the city's efforts to address disinfection byproduct levels by switching disinfection from chlorination to chloramination. Some city officials, through the media, have suggested that the department required the city to use chloramination in its drinking water treatment system. This is not the case. The city chose the treatment technology in order to comply with federal, health-based standards for drinking water. Also, the department has received inquiries about the city's drinking water, including a recent phone call by Mr. Robert Bowcock of Integrated Resource Management, a group that has held forums with city residents on drinking water issues. Due to the heightened concern in the city and its citizens, the department is providing this clarification regarding the use of chloramines in drinking water and the city's switch to this process.

The department has regulatory responsibilities to ensure public water systems monitor and meet Maximum Contaminant Levels established under the Federal Safe Drinking Water Act. In this role, the department does not dictate specific treatment processes that must be utilized to meet those standards. The city's recent switch to chloramination was undertaken to meet the requirements of a recent federal rule that is tightening standards for disinfection byproducts in drinking water. Disinfection byproducts, particularly haloacetic acids and total trihalomethanes (TTHM's) pose chronic health risks. Included are increased cancer risk and liver, kidney or central nervous system problems if consumed above maximum contaminant levels for many years.

The city's drinking water has significantly exceeded the maximum contaminant level for TTHM's for several years. Consequently, the department required the city to take action to reduce the levels of these disinfection byproducts in its drinking water to meet the health-based standards for these contaminants. There were several treatment or infrastructure options available to the city to address

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this problem. After consulting with its hired consultants and professional staff, the city chose to pursue chloramination (as noted in the city's September 29, 2015 letter to the editor in the *Hannibal Courier-Post*). The selection was then subject to approval from the department to design and implement the changes. The department approved the city's selection of chloramination as it is a well-established and proven technique for addressing the problems the city was experiencing.

The department recognizes that there are some who are opposed to the usage of chloramines due to health concerns. According to the federal Center for Disease Control and Prevention, drinking water disinfected with "small amounts of chloramine does not cause harmful health effects and provides protection against waterborne disease outbreaks." (<http://www.cdc.gov/healthywater/drinking/public/chloramine-disinfection.html>). However, regular monitoring and control of the treatment process is important to optimize the effectiveness of the chloramination process.

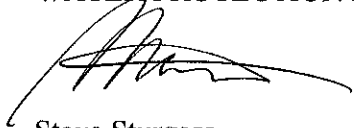
Currently 2.6 million citizens, or roughly half of the Missourians who are customers of a community water system, use water that is disinfected through chloramination. Chloramination is a common disinfection technology used throughout the country and the world. It is the most common solution implemented by public water systems working to prevent the formation of disinfection byproducts.

Each community has the discretion to decide which treatment process it would like to utilize, as long as the technology is safe and will effectively provide treatment in all conditions. It is our opinion that, as long as the city properly operates and maintains its system, chloramination will prove to be a safe and effective method for addressing the city's problems with disinfection byproducts.

If you have questions you may contact Mr. Lance Dorsey, of my staff, at (573) 751-6982 or via mail at the Department of Natural Resources, Water Protection Program, Public Drinking Water Branch, P.O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

WATER PROTECTION PROGRAM



Steve Sturgess
Public Drinking Water Branch Chief

SS/ldj

c: Ms. Irene Crawford, Northeast Regional Office
Ms. Darlene Groner, Financial Assistance Center