

TOWN OF

RANDOLPH VOLLER
Mayor

Town Manager

PAUL S. MESSICK, JR.
Town Attorney

P.O. Box 759 - 635 East Street
PITTSBORO, N.C. 27312



BOARD OF COMMISSIONERS

GENE BROOKS
MAX G. COTTEN
PAMELA BALDWIN
CHRIS WALKER
CLINTON E. BRYAN,

TELEPHONE
(919) 542-4621
FAX (919) 542-7105

June 5, 2007

Dear Customers of Pittsboro Water System:

The Town of Pittsboro recently sent out notices to its customers informing them of problems with its drinking water. These violation notices were for exceeding the total trihalomethane (TTHM) maximum contaminant level (MCL). TTHMs are formed when chlorine, added to the water for disinfection, reacts with natural organic matter (NOM) present in the water.

The Town must add a disinfectant, such as chlorine, to achieve primary disinfection of the water. The Town must also maintain a secondary level of disinfectant in the distribution system, such as chlorine, so that water continues to be protected as it travels through the pipes to each customer. Without a disinfectant, customers may experience acute health problems associated with waterborne microorganisms. So, the primary objective of the water treatment system is to properly disinfect water.

The formation of TTHMs is not immediate and depends on several factors. These include time, pH, natural organic matter concentration, chlorine concentration, bromide concentration, and temperature. An increase in any of these constituents causes an increase in TTHM concentration.

The TTHM regulation was initiated by the federal Safe Drinking Water Act in 1979. The MCL was set at 0.10 mg/l. In January 2004 the TTHM MCL went down to 0.080 mg/l. The MCL is based on the running annual average of quarterly samples. Each calendar quarter, samples are collected from various locations in the distribution system, including sites that represent the system's maximum residence time (end of the line). The running annual average is calculated by combining the latest four calendar quarters together into an average.

Among other things beyond the scope of this letter, high TTHM in potable water is believed to cause an increased chance of acquiring cancer when consumed on a daily basis over many years (drinking two liters a day every day for seventy years). As opposed to waterborne disease, which can cause acute and serious illness shortly after being consumed, TTHM consumption may result in chronic health issues following sustained use of the water over a long period of time. A more thorough explanation of this issue can be found in a 2005 press release from the State.

RV

Though this is not an acute issue requiring immediate notification and quick response, a TTHM violation certainly should not be taken lightly. Pittsboro is dedicated to supplying safe water to its citizens and customers. The Town is working with its engineers and the state to develop an effective and acceptable action plan to reduce TTHMs. Though the exact details of the plan are still being worked out, the Town has contracted with its engineer to complete a pilot study that evaluates the efficacy, pros, and cons of enhanced coagulation and chloramination to help reduce TTHM levels. According to the engineers, the following is the schedule for the pilot study:

1. Jar tests will be conducted to compare the Town's existing coagulant (polyaluminum chloride) to alternative coagulants (polyaluminum sulfate, ferric sulfate, and aluminum sulfate). The dosage and pH will be adjusted to determine the optimum coagulation method. The jar testing will be coordinated with HUA, the Town, and the Town's chemical representative. They hope to have the testing completed before June 25th, 2007.

2. Using data from the jar testing, a semi-permanent change in coagulation must be implemented prior to conducting corrosion control testing of free chlorine versus chloramination. The Town will order a Tote Tank of the selected coagulant, and the proper dosage will be added to the raw water stream (NC PWS approval must be obtained). The results will need to be monitored for 30 days prior to starting the chloramine pilot test. The chloramine pilot test could begin on or around August 1st, 2007.

3. When testing for possible corrosion control issues, separate finished water streams will be tested—one using free chlorine and one using chloramines as disinfectants. Each stream will be run through lead, copper, and steel coupons to test for corrosion problems. The test streams will be monitored for 60 days.

4. A floating lamella plate unit will be tested in the sedimentation basins. The engineers have secured use of the unit, and it is expected to be delivered to Pittsboro around August 1st, 2007 and will be tested for approximately 30 days. HUA will assist the Town in implementing this program.

5. Data from all of the tests above will be compiled in a Preliminary Engineering Report that will outline the proposed capital improvements necessary to bring the WTP back into compliance. The PER will be completed and presented to the Town by November 26th, 2007.

Thereafter, the Town Board of Commissioners will evaluate the results of the study and recommendations of the engineers. The Town is committed to reducing the level of TTHM in its water. Implementation of the recommendations will likely be in the 2008 calendar year.

Sincerely,

A handwritten signature in black ink that reads "Randolph S. Voller". The signature is written in a cursive style with a large initial "R".

Randolph S. Voller, Mayor



N.C. Department of Environment and Natural Resources

Release: Immediate
Date: March 28, 2005

Contact: Laura Leonard
Phone: (919) 715-3204

STATE OFFICIALS REASSURE CITIZENS REGARDING DRINKING WATER; IMPLEMENTATION OF TIGHTER DISINFECTION BYPRODUCTS RULE CAUSES CONCERN

RALEIGH — The Division of Environmental Health's Public Water Supply Section is reassuring citizens who may have recently received notice that their drinking water contained elevated levels of trihalomethanes (TTHMs) and haloacetic acids (HAA5s).

TTHMs and HAA5s are byproducts of water disinfection. Because these compounds could cause health problems for people who are exposed for very long periods of time, the new disinfection rules are designed to sharply reduce them. Some systems have not been able to meet the new standards and are now reporting the elevated levels to their customers, which has caused some public concern.

"Having tighter standards means all public water systems across the country have to treat their water differently to meet the new standards set by the Environmental Protection Agency," said Jessica Miles, section chief of the Public Water Supply Section. "This process of changing the way a system treats its water takes time. Some systems are now making additional changes to their treatment process after finding that the initial changes were not successful in reducing their byproduct levels.

"People need to understand that the potential health effects of these compounds are long term, based on a 70-year exposure period," said Miles. "These systems' elevated levels should be temporary. All of North Carolina's impacted public water systems are working diligently to meet these new standards, and we believe they will comply with these new standards soon."

The EPA estimates that a person who drinks two liters of water daily containing elevated levels of TTHMs or HAA5s over a 70-year period may have an increased risk of getting cancer, or may experience problems with their liver, kidneys or central nervous system.

In 1998, the EPA's Stage 1-Disinfectant and Disinfection Byproduct Rule tightened standards for disinfection byproducts for all public water supply systems. The EPA gave larger public water systems four years to become compliant. The remainder of systems began collecting their data during 2004, and it was evaluated at the end of that same year.

Miles added that this rule was been implemented in phases because it is hard for water systems to shift treatment and operational processes used for years without risking violation of other standards required by different, federally-mandated rules.

"It is important to remember that the disinfection process immediately reduces the chance of illness and death," Miles said. "The benefits of disinfecting North Carolina's drinking water far outweigh the risks of developing long-term health problems."

Division of Environmental Health
Phone (919) 715-3204
1630 Mail Service Center, Raleigh, NC 27699-1630

Laura J. Leonard, Public Information Officer
FAX (919) 715-3242
laura.leonard@ncmail.net

An Equal Opportunity / Affirmative Action Employer

(RV)