News Release

DRINKING WATER NOTICES NO REASON FOR CONSUMER CONCERN

They reflect careful government standards for water purity

FRANKFORT, Ky. (May 9, 2005) – If you received a notice from your water company about “disinfectant byproducts” in your drinking water, you’re not alone. Thousands of Kentuckians are receiving the notices, which were required under standards set by the U.S. Environmental Protection Agency (EPA).

Recently, many water systems in the state were required to notify customers that maximum contaminant levels (MCLs) for certain disinfectant byproducts (DBPs) had been exceeded. The notices, intended as advisories, included language about potential health effects from consuming water with elevated levels of these substances.

The notifications used specific language and a format dictated by EPA, causing confusion among some consumers.

What it’s all about

To be made safe for drinking, water is disinfected during treatment. Without disinfection, bacteria, viruses and microbes would cause disease and possibly death. Dysentery, cholera and typhoid fever once were constant threats. Public health officials say chlorine treatment of drinking water is one of the most significant public health achievements of the past century.

However, disinfectants such as chlorine, chloramine, chlorine dioxide, ozone and bromine can react with substances that occur naturally in water at its source, such as decaying leaves or other organic matter. The reaction creates DBPs such as trihalomethanes (THMs) or haloacetic acids (HAAs). The EPA determined that long-term exposure to DBPs was potentially cancer-causing and thus set maximum contaminant levels (MCLs) for water systems to meet. The standards were set cautiously and conservatively.

The MCL for THMs was set in 1970 and revised in 1998; the new rule also added monitoring for HAAs. The new rules became effective for all surface and groundwater systems on Jan. 1, 2004, regardless of population size. Water systems are required to monitor for THMs and HAAs every three months. At the end of 2004, quarterly monitoring was
averaged and compared with the MCL. If the running annual average showed the level to be over that set by EPA, a water system was to examine its treatment techniques to get into compliance. It also was to notify the public of its monitoring results. Those averages and notifications became available in March.

Eight percent of large water systems – systems that served more than 10,000 people and treated surface water – were out of compliance in 2004, down from 37 percent in 2002. Most are taking further steps to control THM and HAA.

Smaller surface water systems and all groundwater systems began to comply with lower limits in 2004. As this was the first time that these smaller surface water systems monitored for THMs and HAAs, some had not changed their treatment processes enough to lower these levels and thus were out of compliance at the end of 2004. Of the approximately 208 groundwater systems and 103 small surface water systems, none of the groundwater systems exceeded the new MCL and 25 percent of the surface water systems did exceed them. That 25 percent was required to notify the public for the first time about this new monitoring. Those small surface water systems are now examining their treatment processes and preparing to make the changes necessary to return to compliance.

The health effects of DBPs are unclear. Some studies have shown no problems. Others have indicated a slightly higher incidence of bladder and colon cancer in areas where drinking water has been chlorinated. Though the science is uncertain, EPA has taken precautions by establishing MCLs. To experience health effects from water with elevated DBP levels, a person would have to drink two liters daily for 70 years of water containing elevated levels of these substances. Risks from not disinfecting are immediate, however.

For information about DBPs, contact the Drinking Water Hotline, 1-800-426-4791, or see these Web sites:
http://www.epa.gov/safewater/hfacts.html. Click on Disinfection Byproducts.
http://www.epa.gov/safewater/pws/pn/handbook.pdf. This site contains the handbook that tells how water systems are to notify their customers and exactly what language they must use.


What’s being done and what consumers can do

Water systems, with assistance from DOW when needed, will be adjusting treatment processes. Customers of water systems that sent notices need not switch to bottled water. THMs dissipate readily from water. THMS and HAAs both are removed when water is heated, such as for making coffee or tea.

For cold drinking water, or in making beverages with cold water, allowing the water container to sit uncovered at room temperature for several hours before refrigeration will allow much of the THM concentration to dissipate.

People with special health needs or concerns should contact their physicians for additional precautions.
Malmstrom residents: Important information about your drinking water


by 341st Medical Group Bioenvironmental Flight

2/9/2009 - Malmstrom Air Force Base, Mont. -- The Malmstrom AFB water system recently violated the EPA Stage Disinfection and Disinfection Byproducts Rule (Stage 1DBPR) drinking water standards. Samples for Haloacetic Acids (HAA required for this ruling. This rule requires that four quarters of sampling be averaged and compared to the EPA Maximum Contaminant Level (MCL). The EPA requires reporting when a running average of four consecutive quarters is over 60 parts billion (ppb) for HAA5. Malmstrom results over the last four quarters exceeded the HAA5 MCL with a value of 63 ppb.

Although this incident is not an emergency, as our consumers, you have the right to know what happened and what we are correcting the situation.

What does this mean?
This is not an emergency. If it had been you would have been notified immediately.

- The term ‘Total Haloacetic Acids’ (HAA5) refers to the sum of the concentrations of dichloroacetic acid, trichloroacetic acid, monochloroacetic acid, monobromoacetic acid and dibromoacetic acid in a water sample. HAA5s can be present in chlorinated drinking water, as chlorinated water disinfectant byproduct forms when the chlorine reacts with natural organic matter and/or ions in raw water supplies.

- Some people who drink water containing HAA5 in excess of the MCL over many years may have an increased risk of getting cancer.

What should I do?
You do not need to boil your water or take any other corrective actions. However, if you have specific health concerns please your physician.

What happened? When? What was done?
The Bioenvironmental Engineering Flight routinely monitors the drinking water for contaminants. Stage 1DBPR requires sampling on a quarterly basis, and that a running four quarter average of the results be compared to the EPA established MCLs. Through year of 2008 technicians collected the required four samples for HAA5. Two samples out of the last four quarters were over for HAA5. Consequently these results caused the monitoring average for the year to exceed the established MCL; which prompted this notice.

Verification monitoring was accomplished on Feb. 5 and the base is awaiting results. Future monitoring will be conducted to determine the scope of the problem. A new waterline project is scheduled to start in the spring of 2009 to improve water quality addition short term mitigation includes increased waterline flushing to remove HAA5.

For more information, please contact Capt. Aaron Weaver, Chief of Bioenvironmental Engineering, at 731-4406.

Comments

No comments yet.
Residents Receive Letter Concerning Tap Water

EPA: Trihalomethanes Have No Adverse Effects After Short-Term Exposure

Reported by Cara Kumari

POSTED: 1:45 pm CDT May 29, 2008
UPDATED: 7:29 pm CDT May 29, 2008

LaVERGNE, Tenn. -- Some LaVergne residents received letters in the mail recently concerning the city's drinking water.

Video: City Issues Letter To Residents About Drinking Water

The letter told residents that the city of LaVergne exceeded the level for trihalomethanes.

The EPA does not consider the level a violation or to have any adverse effects on human health from short-term exposure. Water officials said residents would have to consume large amounts of the water for 20 years to see any significant health problem.

According to drinking water standards, a public water system is obligated to send out a public notice for any exceedance. For what is considered a maximum contaminant level exceedance, a notice is required within 30 day

Water officials said last summer's dry, hot weather led to the creation of the chemical but that the situation has improved dramatically since. The officials said the high levels appear last summer.

"We had some extremely drought times, high temperatures, the lake was at a lower level and the water was a little bit hard to treat," said Thomas Champagne of Severn Trent Services

Champagne said the levels are now back to normal but that the high levels are being averaged in.

The water is still safe for bathing and cooking and does not need to be boiled, according to the city.

“The water is fine coming out at the tap. We test it daily,” Champagne said.

Kelli Williams said she and her family are using bottled water, because they are still concerned.

“We haven’t been drinking the water. We do still cook with the water, and we do still use the ice, but we haven’t been drinking it. We’ve just been drinking bottled water,” Williams said.

Residents are urged to consult their doctor if they have specific health concerns.

The EPA investigated LaVergne’s water treatment plant in 2006 after the water department released too much of a treatment chemical into the system, which gave the water a pink-tinted color.

Since then, new management said it has fine-tuned the plant and that it wants to assure customers that the water is safe.

Officials said a repeat of the problem is unlikely because the area has already received so much more rain already.

Related Link:

- Letter Sent To LaVergne Residents

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Water quality has Newport in a bind

By Sean Flynn/Daily News staff

The city of Newport finds itself in a "Catch-22" situation that is attracting national attention: If the city adds ammonia to its drinking water to eliminate hazardous trihalomethanes, the resulting chloramines in the water will dissolve lead in the pipe linings and copper in brass fixtures and put the city in violation of the U.S. Clean Water Act.

On the other hand, if the city stays with chlorine dioxide as its sole water disinfectant, it is likely to be in violation of pending regulations that will tighten the standard for trihalomethanes (THMs), a known carcinogen. These substances form when the disinfectant chlorine chemically combines with organic matter, such as decaying plant and animal materials, during the water-treatment process.

The U.S. Environmental Protection Agency is aware of Newport's "Catch-22," a phrase used this week by city officials to express the paradox in regulations that seemingly penalizes the city to lose no matter what it does.

"The problem Newport faces with optimizing corrosion control for lead and copper while maintaining compliance with the new and evolving disinfection byproduct regulations is definitely one of the most complex water treatment chemistry challenges that we have encountered," wrote Michael R. Shock, a chemist with EPA's Treatment Technology Evaluation Branch in a letter sent this week to a city consultant.

The city entered into a $287,400 contract with Camp Dresser & McKee Inc., an engineering firm based in Cambridge, Mass., in November 2004. The firm studied how water at the treatment plant could be brought into compliance with current and pending water regulations, and studied the impact of chloramines on the system.

The difficulty of achieving compliance with trihalomethane standards, without putting the city in violation of lead and copper standards, will require additional study. EPA allows up to 80 parts per billion of THMs in the water, and Newport has been just below that standard. However, the city is allowed to average the results of tests from eight sites to achieve compliance. By 2013, the consultants said, the city will have to be below 80 ppb for every test of tap water.

The city administration has requested the City Council to approve an additional $268,000 for Camp Dresser & McKee to explore 11 options for the city, seven at the two existing water treatment plants, the Lawton Valley plant in Portsmouth and the Station 1 plant on Bliss Mine Road, and four for the planned upgraded plants of the future.

Julia A. Forgue, the city's director of public works, told council members Wednesday night that the project would be much more expensive without assistance from the EPA. She said the agency has committed $324,000 toward the upcoming pipe-loop analysis. The city has removed pipes from the water system and set them up on equipment from

EPA for the analysis. She said the EPA already has provided assistance to the project valued at $379,000. The agency did not provide cash grants, but provided materials, equipment, and technical and chemistry modeling expertise.

Shock wrote in his letter that the EPA also is considering supplementing the funding, "depending on whether or not our final fiscal year 2008 budget allocation permits new project activities."

Forgue, John Keaney, a senior project manager with Camp Dresser & McKee, and Carol Rego, a senior technical specialist with the company, explained to council members the need for the project during a power-point presentation at a council workshop Wednesday night.

What makes Newport's water system different from many other communities is the tetravalent lead coating that has built up inside the water pipes, Rego said. This coating is known as "pipe scales." Tetravalent lead, also known as "Lead IV," is very insoluble and now acts as a protective layer that keeps lead levels low in the system. However, according to Camp Dresser & McKee testing to date, and also concluded by a panel of experts, the conversion to chloramines would result in a significant increase in lead levels throughout the system. To form the chloramines, there is about five times more chlorine in the water than ammonia, Rego said, but the addition of ammonia reduces the "oxidation of reduction potential" of the water. That destabilizes the protective tetravalent lead scales.

Rego said other older communities such as Boston and New Bedford, Mass., have lead pipes but do not have the tetravalent lead scales. Those communities have been able to use chloramines. Washington, D.C., has pipes similar to Newport. When chloramines were added to that system in 2004, lead levels rose and caught the city by surprise.

Rego said the new round of analysis and testing of the possible options for the Newport water system would begin in November.
Violation of EPA Standards in Croton Drinking Water Points Out Need for Filtration

Release date: 06/25/2003

Contact Information:

(#03073) Results of recent water samples from the Croton Water System taken by the City of New York show a violation of a health-based U.S. Environmental Protection Agency (EPA) drinking water standard. Most recent samples taken by the city in May 2003 of haloacetic acids -- byproducts of the disinfection process – in the Croton system were elevated enough that when considered together with monthly averages exceeded the federal health-based standard. While the levels of haloacetic acids in the system do not pose an immediate threat to New Yorkers, the violation highlights why drinking water from the croton system needs to be filtered. EPA has not assessed monetary penalties against the city for the violation, but has ordered it to evaluate methods to reduce levels of these chemicals until a Croton filtration plant is built. The City must also notify New Yorkers of the violation by the end of June.

“EPA required the city to build a filtration plant ten years ago because the millions of New Yorkers that drink Croton water deserve to have the highest quality water possible,” said Jane M. Kenny, EPA Regional Administrator. “This violation shows what EPA and the city have known all along. The Croton system is vulnerable to certain types of contamination, and will likely become more vulnerable in the future. Filtration is an absolute necessity.”

Under the federal Safe Drinking Water Act, New York City’s drinking water must be monitored regularly to ensure that it meets all federal health requirements, including those for disinfection byproducts like haloacetic acids. Disinfection byproducts are formed when chemicals like chlorine – which are added to public water supplies to kill harmful viruses and microbes such as E.coli and Giardia – react with organic matter in the water. People who ingest elevated levels of haloacetic acids over a long period of time may have a higher risk of getting cancer.

The city is currently designing and considering several locations for a filtration plant. When the plant is operational, it will filter out organic material that enters Croton reservoirs in Westchester and Putnam counties. A reduction in organic matter will mean a reduction in the amount of disinfection byproducts in the drinking water and higher quality water for the millions of New Yorkers that drink it.

In January 2002, EPA set the maximum level of haloacetic acids permitted in drinking water at an annual average of 0.06 milligrams per liter. Samples taken of Croton water since January 2002 have occasionally showed elevated levels of the chemicals. Samples taken in May 2003, when considered together with results over the year, brought the annual average to 0.065 milligrams per liter – an exceedance of the federal standard. EPA has also ordered the city to give EPA and the New York State Department of Health an evaluation of methods that it could employ to reduce levels of haloacetic acids until a filtration plant for the Croton system is built. The plan must be submitted by the end of July 2003.

New York City gets its drinking water from two sources: the Croton watershed, consisting of reservoirs in Westchester and Putnam counties that provide 10 percent of the city’s water; and the Catskill/Delaware watershed, consisting of reservoirs in a number of more rural counties further upstate that supply the remainder. The Safe Drinking Water Act requires surface water systems like New York City’s to be filtered unless EPA finds compelling for granting a filtration waiver. EPA recently granted an extension to the city’s waiver from filtering water from the Catskill/Delaware watershed, because it has a successful watershed protection program in the...
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upstate counties that house this system.

Under the provisions of the Safe Drinking Water Act, the city was required to filter the Croton system by 1993. Since New York City failed to meet that deadline, a consent decree was reached between the city, state and federal government in 1998, requiring the city to build a filtration plant on to a set time frame. According to the consent decree, the plant must be on-line by October 31, 2011, at the latest.

Federal law requires the city to mail a notice of the haloacetic acids violation to affected bill-paying New Yorkers by June 30, and to inform all other affected customers by taking out newspaper ads or through other mass media. Such notifications must include information about the risks of disinfection byproducts, and must continue every three months until the violation is corrected.

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Last updated on 04/27/2006 03:27:11 PM
URL: http://yosemite.epa.gov/opa/admpress.nsf/names/r02_2003-6-25_Croton_Drinking_Water