8 March 2013

Dear Altus AFB Community,

As many of you know, the city of Altus has notified residents recently about levels of total trihalomethanes (TTHMs) in our drinking water that exceed Environmental Protection Agency (EPA) standards. This letter will describe what this means for the city and for Altus AFB. Further, we'll explain potential health risks and let you know what we're doing to correct the problem.

BACKGROUND:

TTHMs are a group of chemicals that are classified as disinfection byproducts (DBPs). DBPs are the result of water treatment, i.e. chlorination, reacting with organic material in the water. The city of Altus receives its water from the Tom Steed Reservoir and treats the water with chlorine. With the historically low water levels and high temperatures, there has been an increase in organic matter in the local water which requires increased amounts of chlorine to treat. As more chlorine is used, more DBPs are formed.

The city of Altus has been required to test for DBPs in drinking water since 1998. In September 2011, the city was assigned a Notice of Violation from the EPA for elevated TTHMs, based on samples that were averaged between July 2010 and June 2011. The city of Altus has been in violation since that time and is required to send notices quarterly to city residents of the violation. The city's treatment system for DBPs is currently offline and is being renovated with an estimated completion date of April 2014.

Because Altus AFB receives its water directly from the city of Altus, we have previously not been required to independently test for DBPs. In the past, the base has met all water quality standards that were applicable; however, those standards did not require testing for DBPs. Now, in order to meet new EPA mandates, we began federal compliance testing for TTHMs on Altus AFB in February 2013. Preliminary tests have confirmed elevated TTHMs in Altus AFB water.

HEALTH RISKS:

It's believed that the health risks associated with TTHM exposure are low, and research is underway to define this better. Experts note that it is difficult to isolate specific health outcomes from TTHMs, as there are other minerals and chemicals present in drinking water.

There are studies, however, that suggest possible adverse health effects from long-term, high-dose exposures to TTHMs. Specifically, exposure to DBPs has been associated with various forms of cancer (including liver, kidney, and bladder). Additionally, chronic, high-dose exposure may lead to problems with the nervous system, liver, kidneys, or heart. Other health effects, including developmental effects, are currently being evaluated. Despite these risks, the dangers of drinking untreated water are more significant than the potential risks of short-term TTHM exposure from the chlorination process.

CORRECTIVE MEASURES:

Altus AFB Civil Engineering and Bioenvironmental Engineering are working diligently on plans to reduce TTHM levels in Altus AFB water. We are collaborating with regional experts and Air Force level consultants. A site visit was conducted in October 2012 by an environmental engineer from the United States Air Force School of Aerospace Medicine. These experts are working together on interventions that may reduce the TTHM levels for Altus AFB. Further, once the city's DBP treatment system is restored in 2014, we expect the TTHM levels to appropriately fall within the federal standards.

In the meantime, we are pursuing hydrological studies of the Altus AFB water system to determine methods of improved efficiency that will reduce TTHM formation. Additionally, specific removal methods for the TTHMs are also being evaluated.

PERSONAL OPTIONS TO IMPROVE YOUR WATER:

Although the health risks associated with our levels of TTHMs are low, there are steps you can take to reduce these in your own drinking water. The easiest and most cost-effective way to reduce TTHM levels in the drinking water is to treat it with an activated charcoal filter (for example, a Brita faucet-type system). There are many commercial options for these, and they are easy to use. Another more expensive option is to install a reverse osmosis system in your house, which may require landlord approval if you do not own your home.

If you have any questions, please contact me at 481-5494 or e-mail megan.singer@us.af.mil.

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