



CTS of Asheville, Inc. Site

2013 Health Consultation Summary

For a Full Report and Additional Information Visit

http://epi.publichealth.nc.gov/oe/hace/by_site.html

Background	This site is located in Skyland, Buncombe County, North Carolina. Private wells in the area are being sampled to determine if they have been contaminated by chemicals in the ground water moving away from the former CTS site. The U.S. Environmental Protection Agency (EPA) has collected private well water samples in this area as part of an on-going investigation since November 2007. The well water data collected through January 2010 was evaluated in a previous Health Consultation that was completed in July 2010.
Purpose of the Health Consultation	The N.C. Division of Public Health (DPH) was asked to conduct an evaluation of the potential public health hazards related to the use of private well water in the Mills Gap Road area.
How was the Health Consultation conducted?	DPH looked at more than 800 well water samples collected by EPA in 2010 and 2011. The samples were collected every three months from about 100 wells in the two-year period. We also evaluated stream sediment and surface water samples collected near the CTS site by EPA during that period.
Results	<ol style="list-style-type: none">1. Seven homes had elevated lead levels in their drinking water. We do not know the source of the lead contamination. The levels found could result in long-term adverse health effects among children.2. Five homes had elevated copper levels. Children drinking water from these wells could have temporary health effects.3. We do not know if elevated levels of arsenic or polycyclic aromatic hydrocarbons (PAH) in some homes could cause health effects. It is possible that elevated levels of these two chemicals were a result of improper sampling techniques or laboratory error.4. There were no trichloroethylene detections in private drinking water wells during this sampling period.5. No contaminants were detected in the four sediment samples or surface water samples collected near The Oaks residential area. Contaminants were detected within the fenced area southeast of the CTS site. This area is closed and posted with warning signs.

The source or sources of the contaminants may not all be related to the CTS site.

Chemicals of concern associated with the site and some potential health effects.

Polycyclic Aromatic Hydrocarbons (PAH): This group of chemicals can occur naturally or be man-made. Some PAHs may reasonably be expected to cause cancer in humans. Some people who have breathed or touched these mixtures of PAHs for long periods of time have developed lung or skin cancer.

Cyanide can occur naturally or be man-made. It can come from industrial processes, or vehicle exhaust, tobacco smoke and pesticides among other sources. High levels for a short time can harm the brain and heart and can cause coma and death. People exposed to cyanide in drinking water for a long period of time have experienced effects to their thyroid functions and neurological symptoms.

Arsenic occurs naturally in the soil but it has also been used in pressure treated wood, pesticides and some manufacturing processes. Drinking it may cause nausea, vomiting, diarrhea, skin lesions, high blood pressure, decreased lung function, and circulatory problems. It has been associated with an increased incidence of miscarriages and low birth weights. Drinking it may increase the risk of cancer in the liver, bladder, and skin.

Copper occurs naturally in the soil. It can also be found in plumbing fixtures. Drinking high levels can cause nausea, vomiting, stomach cramps and diarrhea. Very high doses can cause liver and kidney damage. There are a very small percentage of infants and children who are unusually sensitive to copper.

Lead can be found naturally and in old plumbing solder. It can affect the nervous system, kidneys, blood formation, reproduction, and the immune system. Lead may cause anemia. Pregnant women exposed to high levels of lead may experience miscarriages. Lead is considered a probable human carcinogen. Children are more sensitive to the effects of lead than adults.

Recommendations

- Advice should be provided individually to the people in the homes that had elevated levels of chemicals to address their unique situation. Special consideration should be given to homes with small children and sensitive populations.
- People in the homes with elevated levels of contaminants should let their doctors know about the chemicals found in their water.
- Investigate if the lead or copper is coming from the plumbing and provide advice on how to reduce the contact with these chemicals.
- Residents concerned with contamination in their well water should consider alternative water sources such as a filtration system or connecting to municipal water if available.
- Residents with filtration systems should be given information on proper system maintenance.

NC HACE Program:

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Information and assistance about well testing:

Buncombe County Health Department at
(828) 250-5036



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