

South Tahoe

Public Utility District

Public/Legislative Affairs Office

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ARSENIC FACT SHEET

What is arsenic?

- Arsenic occurs naturally in the environment, being the twentieth most common element in the Earth's crust. Arsenic is the twelfth most common element in the human body. Arsenic occurs in the environment by the weathering of rocks, burning of fossil fuels, ore smelting, and manufacturing. It is widely distributed in nature and is mainly transported in the environment by water.

What are arsenic's health effects?

- Although short-term exposure to high doses (about a thousand times higher than the drinking water standard) can cause adverse effects in humans, such exposures do not occur from public water supplies in the U.S. that comply with the arsenic standard.
- Some individuals who drink water containing arsenic in excess of the EPA's standard ***over many years*** could experience skin damage or problems with their circulatory systems, and may have an increased risk of getting cancer.
- For most people, the most significant exposure to arsenic is through food. It is a normal component of the diet. Studies by the U.S. Food and Drug Administration (FDA) have found that fish and seafood are higher in arsenic content than other foods and account for the largest contribution to total arsenic intake in the typical adult diet.

What has happened? What is being done?

- Arsenic is sometimes found at very low levels in drinking water, primarily in groundwater. The U.S. Environmental Protection Agency (EPA) was required by the Safe Drinking Water Act Amendments of 1996 to finalize a new drinking water standard for arsenic in 2001 based on good scientific information and data. In September 2001, EPA adopted a new standard of 10 parts per billion (ppb) from its previous standard of 50 ppb.
- 10 parts per billion of arsenic in water means that there are 10 molecules of arsenic for every 999,999,990 molecules of water. That is roughly equivalent to a few drops of ink in an Olympic-sized swimming pool.

- Now that the federal standard of 10 ppb is complete, California must move to adopt its own arsenic standard. While states are usually given 2-3 years to adopt federal standards, the passage of California Senate Bill 463 in 2000 required California to adopt its new standard by June 30, 2004.
- Because of many regulatory delays, California Department of Health Services (CDHS) did not meet the June 30, 2004 deadline for the arsenic standard.
- Because of the lengthy California review and approval process, a final arsenic stand has yet to be adopted by CDHS.
- Since CDHS has not adopted its own arsenic regulation, the federal standard of 10 ppb is now effective in California. CDHS is helping EPA to implement the federal standard, but EPA is in charge of enforcing it. Once California completes its standard, SCHS will resume enforcement duties as well.
- This new standard went into effect on January 23, 2006. Water utilities were not immediately declared out of compliance or in violation of the new regulation. The federal regulations require that water systems monitor for arsenic during the first 1-3 years to determine their official compliance level. Once the monitoring is complete, a compliance determination is made. If a system, or individual well, has average arsenic levels greater than 10 ppb, it is found to be out of compliance with the new arsenic standard. The District completed arsenic monitoring in January 2008.
- During that monitoring period, water sample results showed arsenic levels of 15.2 ppb on one affected well and 11.5 ppb on another. These are above the new standard. System-wide, the District averaged 4.06 ppb during the 2008 monitoring period.
- Of the two affected wells, one is offline from the water distribution system and would only be utilized in an emergency such as fire or low tank levels. The remaining well is currently treating with iron-based adsorption technology.
- The District completed the arsenic treatment project in October 2009 and is in compliance with the federal standard as well as CDPH.
- For additional information on the web:

www.epa.gov/safewater/arsenic/index.html

or

www.cdph.ca.gov/certlic/drinkingwater/Pages/Arsenic.html

or

EPA Safe Drinking Water Hotline @ 1.800.426.4791