



## Arsenic in Drinking Water – The Standard for Arsenic in Public Drinking Water Systems

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On February 22, 2002, the Environmental Protection Agency (EPA) revised the Arsenic Rule to protect consumers against the effects of long-term, chronic exposure to arsenic in drinking water. The current Maximum Contaminant Level (MCL) for arsenic will be lowered from 0.050 mg/l to 0.010 mg/l. Effective January 23, 2006, all Community and Non-Transient Non-Community (NTNC) Public Water Systems (PWS) must comply with the new lower arsenic standard of 0.010 mg/l. The EPA document titled National Primary Drinking Water Regulations; Arsenic and Clarifications to Compliance and New Source Contaminants Monitoring; Final Rule ([http://www.epa.gov/safewater/ars/arsenic\\_finalrule.html](http://www.epa.gov/safewater/ars/arsenic_finalrule.html)) is the primary source of detailed information regarding the new standard for arsenic in public drinking water systems. Please refer to this document for specific information pertaining to the revised Arsenic Rule.

Surveys of water wells have been conducted in several New England States, including some areas of Connecticut. Results of a recent study of private wells in Connecticut conducted by the U.S. Geological Survey (USGS)<sup>1</sup>, and compliance testing of existing public well systems, indicate that some Connecticut bedrock drinking water wells can exceed the new 0.010 mg/l arsenic drinking water standard. Though the extent of this contamination is not well known, the number of affected wells is thought to be relatively small. For additional information about the background and occurrence of arsenic, as well as costs associated with arsenic removal in drinking water, please visit EPA's Fact Sheet: Drinking Water Standard for Arsenic at [http://www.epa.gov/safewater/ars/ars\\_rule\\_factsheet.html](http://www.epa.gov/safewater/ars/ars_rule_factsheet.html). Additional technical information can be found in EPA's Technical Fact Sheet: Final Rule for Arsenic in Drinking Water at [http://www.epa.gov/safewater/ars/ars\\_rule\\_techfactsheet.html](http://www.epa.gov/safewater/ars/ars_rule_techfactsheet.html).

Public Water Systems that may have to take corrective action to ensure that the 0.010 mg/l arsenic standard is met should consider the following options:

- Treatment for arsenic removal. This option may require a discharge permit from the CT Department of Energy and Environmental Protection (CT DEEP)
- Source Replacement

- Interconnecting with another PWS

The EPA has identified Best Available Technologies (BAT) for arsenic removal in drinking water. The Final Rule document referenced above, [http://www.epa.gov/safewater/ars/arsenic\\_finalrule.html](http://www.epa.gov/safewater/ars/arsenic_finalrule.html), describes each BAT in detail. Briefly, they include:

- Activated Alumina
- Coagulation/ Filtration
- Ion Exchange
- Lime Softening
- Reverse Osmosis
- Electrodialysis
- Oxidation/ Filtration

Public Water Systems that have to take corrective action to comply with the revised Arsenic Rule may apply for financial assistance through the CT Department of Public Health's (CT DPH) Drinking Water Section's (DWS) Drinking Water State Revolving Fund (DWSRF) Program. More information regarding DWSRF can be found on the DWS's website, [www.ct.gov/dph/publicdrinkingwater](http://www.ct.gov/dph/publicdrinkingwater). Options for arsenic removal should be discussed with DWS staff. Please call (860) 509-7333 to speak with a DWS staff member regarding your PWS's arsenic removal options.

#### References:

- (1) Brown, C. & Chute, S. (2002). *Arsenic Concentrations in Bedrock Wells in Colchester, East Hampton, and Woodstock, CT*. U. S. Geological Survey, Water Investigations Report 02-4135.