

US EPA ARCHIVE DOCUMENT



FACT SHEET

EPA's ETV Program Verifies Arsenic Removal Technologies

EPA's Environmental Technology Verification (ETV) Program, Drinking Water Systems (DWS) Center, part of the National Risk Management Research Laboratory (NRMRL) in Cincinnati, Ohio, has verified several technologies for the reduction of arsenic in drinking water. ETV evaluated skid-mounted package technologies applicable for small community water systems and other facilities such as schools, churches, nursing homes, and factories. The ETV DWS Center is a partnership between EPA and NSF International, a public health and safety company in Ann Arbor, MI.

Background

Arsenic contamination of ground and surface water sources is found in many locations throughout the United States, occurring naturally and through industrial pollution. Studies have linked long-term exposure to arsenic in drinking water to numerous health problems, particularly bladder and lung cancer. Recently, EPA lowered the arsenic standard from 50 parts per billion (ppb) to 10 ppb, and initiated a research strategy to evaluate arsenic removal technologies and provide technical assistance. ETV studies provide significant contributions to EPA's research goals through performance evaluations of specific commercial-ready technology products.

Results and Outcomes

These ETV reports provide short-term water quality treatment results and identify operation and maintenance issues for three technology types:

- oxidation and/or iron coagulation with filtration,
- membrane processes, and
- adsorptive media systems.

Additional ETV arsenic treatment studies are underway and reports will be available during 2005. Many of the verified technologies demonstrate the capability to reduce arsenic levels in drinking water to 5 ppb or less. This provides several available alternatives for off-the-shelf technology products to the estimated 4,100 small drinking water systems that may be required

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to install treatment to meet the new arsenic standard. State agencies have indicated ETV studies may also help to minimize pilot testing requirements and help expedite the approval and implementation of technologies at sites to aid in compliance with these new drinking water standards.

For more information, visit these Web sites:

- <http://www.epa.gov/etv>
- <http://nsf.org/etv>

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