FACT SHEET

EPA's Water Treatment Demonstration Project to Reduce Amount of Arsenic in Climax, MN, Drinking Water

Researchers from EPA's National Risk Management Research Laboratory (NRMRL), headquartered in Cincinnati, Ohio, are working in partnership with Climax, MN, and a contractor to install and operate a water treatment technology aimed at reducing the level of arsenic in local drinking water. Operation of the demonstration project began in August, 2004, and is being regularly monitored to determine progress.

Climax's new arsenic water treatment equipment

Background

Arsenic is a naturally occurring contaminant found in ground water in various locations throughout the United States. Research and development efforts at EPA have identified certain technologies that remove arsenic from drinking water. Some community water systems often face challenges in choosing the right technology to reduce the level of arsenic. Therefore, in select demonstration projects across the country, just like this one in Climax, EPA is partnering with municipalities and equipment producers to bring the most appropriate drinking water technology into the field and demonstrate their effectiveness.

The Project

New water treatment equipment is installed to reduce arsenic in a community's drinking water. The water quality is then monitored to verify the effectiveness of the treatment. The equipment, a co-precipitation/filtration system, used in a Climax installation is produced by Kinetico, Inc., working under a Cooperative Research and Development Agreement. The equipment was matched to characteristics of the source water. While the town of Climax will operate the new equipment, scientists from Battelle, an EPA contractor in Ohio, will track the operation of the arsenic removal technology by analyzing weekly water samples. EPA will use the results from this project and others like it to demonstrate new methods for arsenic removal from drinking water.

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The Goal

The goal of this project is to demonstrate and verify the effectiveness of a co-precipitation/filtration technology in reducing levels of arsenic in Climax's drinking water from around 38 parts per billion (ppb) to 10 ppb or lower. Operational cost is also being studied.

Expected Outcomes

- Other small communities will gain knowledge about the performance of arsenic removal technology through the results of the demonstration project. The results will assist them in selecting the most appropriate and cost effective technology to use at their sites.
- Residents will benefit by having arsenic levels in their drinking water reduced below 10 ppb, complying with the new EPA standard for arsenic in drinking water.

Details about these demonstration projects can be found at this Web site: http://www.epa.gov/ORD/NRMRL/arsenic.

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