

ON CUE WITH DEQ DRINKING WATER

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ADEQ'S POINT OF USE (POU) PROGRAM FOR SMALL SYSTEMS

POU devices may provide the most cost-efficient alternative treatment method for small water utilities to meet the new arsenic compliance standards, but implementation may pose significant challenges.

A Point-of-Use (POU) treatment device may be an attractive option for many small water systems that seek to attain compliance with drinking water maximum contaminant levels (MCLs) under the Safe Drinking Water Act. Advantageous cost savings and “off the shelf” technology are prompting many systems to seriously consider the POU option (instead of a more costly centralized system) to meet a variety of MCL standards including the new arsenic standard of 10 parts per billion (ppb) that goes into effect January 23, 2006.

A POU compliance program differs fundamentally from centralized treatment. With POU the water system installs a device that will treat only the water intended for direct consumption; typically the unit is installed at a single tap such as the kitchen sink. On the other hand, centralized treatment treats all of the water produced by the public water system. Since only a very small percentage of the total water use is for direct consumption (usually 1-3 percent), a POU compliance program can result in significant cost savings for smaller water systems, making it particularly attractive.

When considering POU as a compliance strategy, water systems must fully understand and weigh the obligations that come with implementing such a program.

ADEQ POU COMPLIANCE PROGRAM OVERVIEW

Arizona Department of Environmental Quality (ADEQ) safe drinking water rules allow public water systems to employ POU treatment devices as a means for compliance with drinking water MCLs as outlined under Arizona Administrative Code (A.A.C.) R18-4-222. Additionally, federal law 42 U.S.C. 300g-1(b)(4)(E)(ii) contains requirements that must be met by water systems using POU devices as a means of compliance. Any water system choosing to use a POU program will be required to meet all requirements of the State regulations and federal law.

Federal law requires that the POU device be owned, controlled, and maintained by the public water system or by a person under contract with the public water system to ensure proper operation, maintenance and compliance with the MCLs. Additionally, federal law requires the POU device be equipped with mechanical warnings to ensure that customers are automatically notified of operational problems. The device should also be independently certified as conforming to an American National Standards Institute (ANSI) standard, if one exists. [It must be noted that a POU device cannot be used to comply with a MCL or treatment technique requirement for a microbial contaminant.]

A.A.C. R18-4-222 outlines additional requirements a water system must meet when using a POU compliance program. Arizona regulations specifically require a water system to develop and have an approved written monitoring plan; obtain ADEQ approval of the design of the POU device; install a sufficient number of devices to ensure every person served by the system is protected; and, ensure the rights and responsibilities of persons served by the water system convey with title upon sale of the property.

ADEQ's [POU Compliance Program Guidance](#) document describes these requirements in greater detail and is designed to lead water systems through the analysis and decision-making process to determine whether a POU compliance program is right for that water system. Following this guidance will assist Arizona water systems to ensure their POU compliance program meets all federal and State requirements and is therefore acceptable to ADEQ.

DETERMINING IF POU WILL WORK FOR YOUR SYSTEM

Factors to consider when determining the appropriateness of POU for a water system include:

- Number of service connections on the system
- Type of service connections on the system
 - Single family homes, apartments, restaurants, office buildings, medical offices, commercial or industrial
- Cost of central treatment versus POU

- Additional required sampling & associated expenses
- Ability to gain entrance into customers' households and businesses
- Maintenance frequency and associated workload
- Record keeping requirements
- Willingness of customers to accept a POU compliance program
- Ability of the water system to gain authority to make participation in the program a condition of service
- Any liability associated with such a program

ADEQ will not authorize a system to implement a POU compliance program that does not have a minimum of 75% initial water customer participation at the inception of the program. Upon completion, the system must then reach 100% water customer participation using the tools outlined in the guidance document and/or as outlined in an Order and Schedule issued by ADEQ.

The establishment of a POU program raises challenging issues for a water system, including increased liability and private property access issues. A water system is advised to seek legal counsel to determine the best course of action.

FOR MORE INFORMATION

Arizona Point of Use Compliance Program Guidance

www.azdeq.gov/environ/water/download/pointofuse.pdf

Arizona Administrative Code R18-4-222

Federal law 42 U.S.C. 300g-1(b)(4)(E)(ii)

Guidance for Implementing a Point-of-Use Treatment Strategy for Compliance with the Safe Drinking Water Act.

www.epa.gov/safewater/ars/implement.html

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