

Arsenic & Radon Rule

Radon

Radon exposure comes from home infiltration (95%) . It is a great idea to get a radon kit from your local home building supply to test your home. This testing device is placed in the basement of a home for a specified amount of time and then mailed into the lab, where the radon level is determined. This radon can be removed from the home by ventilation. Four percent (4%) comes from outdoors and one percent comes from water.

There is big opposition to this rule due to the controversial effects of radon. Drinking water has been linked to 168 fatal cancer deaths per year while indoor air has been linked to 15,000 – 20,000 cancer deaths per year.

The regulatory proposal for radon in community drinking water systems ranges from a maximum contaminant level (MCL) of 300 pci/L to an MCL of 4000 pci/L. Therefore there is a lot of controversy over this issue.

The key controversy is due to the following factors:

- The rule is not favored by utilities.
- Possible large state financial drains.
- Dual standards

The present status of this rule is “New emphasis in fall”? This rule may be put on the back burner for up to two (2) years. Industries are hoping for a 3000 pci/L limit.

Arsenic

The MCL is set at 10 ug/L (ppb). The maximum contaminant level goal is zero (0) with a proposed effective date of January 23, 2006.

Most small systems will be affected. All systems need to be in compliance by 2006. Exemptions of up to fourteen (14) years may be given if public health is not affected.

The USEPA is going to maximize grants and loans along with (SRF) State Revolving Loan Funds and the (RUS) Rural Utility Services (USDA).

Point of Use devices (POU) will most likely prove to be the best course of action for small water systems. Point of Use devices (POU) require less technical skill than other sources of treatment and are a lower cost to the water system. Point of Use devices (POU) must be owned and serviced by the Community Water System (CWS). These devices however may be under contract from the Community Water System (CWS) to a third party (homeowner). The USEPA studied Point of Use devices (POU) in Grimes California. Grimes is a rural community of 125 Homes with an average concentration of arsenic at 22 – 30 ppb.

They discovered the following Installation issues:

- Old plumbing not to code.
- No suitable location for faucet.
- No shut off valve or hard to find.
- Installers had to crawl under homes.
- Waste disposal of the cartridges.

(The spent cartridges passed California's disposal limits and were permitted to be disposed of at the local landfill.)

Project costs:

- \$43,410.00 for POU devices and parts
- \$600.00 for installation
- \$16,712.00 in total installation costs
- \$4,417.00 for replacement cartridges
- \$3,350.00 in labor for replacement cartridges

TOTAL = \$67,889.00 or about \$ 595.00/installation.

A cartridge will last one year and the point of use device will last for twenty years.

It may be more cost effective to have centralized treatment covering up to 80-85 households.

I would like to thank National Rural Water and Mr. John Trax for providing me with the above information and for all of the training that is provided to us bi-annually by the National Rural Water Association.

Ladies and Gentlemen: *remember the Alliance of Indiana Rural Water is your organization.* We are here to assist you in training, provide technical assistance, perform leak and line location etc. We try hard to provide every operator in Indiana with one day training sessions within an hours drive from their community. If you would like to host training in your community please let us know.

Jim Soper, our Executive Director, has been a very busy man trying to see that all systems 3,300 – 10,000 are proficient in the Vulnerability Assessment mandate. Give him a call if you have questions in that area.

In closing I would like to remind you all of a very important saying that a good friend of mine always quoted: **“Remember that you work to live you don't live to work!”**

God Bless
Hope to see you soon
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