

Stay on Track!

By Jeff Swanson, Circuit Rider

Having recently attended several classes offered by the United States Environmental Protection Agency (USEPA), it was a reminder that more rules and regulations are on the horizon. The Groundwater rule was proposed quite awhile ago. Yet plans for finalizing the rule are getting closer. Likewise, the Long Term 2 Enhanced Surface Water Treatment rule and Stage 2 Disinfection Byproducts rule is a couple of years from implementation. The proposed Radon rule is planned for 2005-2006. A new rule called the Distribution rule (focusing on protection of water within the distribution system), is expected to make landfall some time between 2006 and 2008. What I'm concerned about, is whether or not, we are keeping on track with the existing rules and their monitoring and reporting schedules. No one wants to get a violation for something that they and/or their laboratory forgot to test for - or report at the appropriate time. With all of the new regulations looming in the near future, we had better get a grip on the existing ones before tackling new ones!

When Phase II and Phase V monitoring was implemented in 1991 and 1992, the process for keeping track of tests and their respective monitoring frequencies became more cumbersome. Recently, some surface water systems believed that Volatile Organic Chemicals (VOCs) were to be tested every 3 years along with the other chemical analysis', only to find that they were required to monitor them every year. That is why I would like to summarize the monitoring requirements by citing them directly from the Department's "Pipeline" publication. This publication has always been a direct 'conduit' of information regarding existing regulations and future regulations to water systems all over the state. For those of you that are certified operators, you will receive one periodically and I encourage you to read them. For those of you that don't have a computer (and are unable to access the DHS/DWP website), the "Pipeline" contains lots of pertinent information to help you stay in compliance. In any event, if we are not well informed in order to stay up-to-date with current regulations and stay abreast of future ones, we are doomed to 'fall between the cracks'. OAWU

Circuit Riders constantly strive to provide clear and understandable regulatory information to Oregon water and wastewater systems. We don't want to see our systems receive violations that in most cases, can be easily avoided with open communication. Here are the various monitoring requirements for current EPA standards:

Microbial Contaminant Monitoring: All community systems, and noncommunity systems using surface water sources or serving over 1,000 people, must sample monthly. All other systems must test for coliform bacteria once per quarter.

Population	Number of monthly samples
up to 1,000	1
1,001 – 2,500	2
2,501 – 3,300	3
3,301 – 4,100	4
4,101 – 4,900	5
>4,900	See rules

Disinfectant and Disinfectant Byproducts Monitoring: Disinfection byproducts (DBPs) must be monitored throughout the distribution system at frequencies daily, monthly, quarterly, or annually, depending on the population served, type of water source, and the specific disinfectant applied, and in accordance with an approved monitoring plan. Disinfectant residuals must be monitored at the same locations and frequency as coliform bacteria.

TTHM/HAA5 monitoring for surface water systems and systems under the direct influence of surface water:

— Water systems serving 10,000 or more four samples/plant/quarter

— Water systems serving 500-9,999 – one sample/plant/quarter

— Water systems serving < 500 – one sample/year/quarter (warmest month)

TTHM/HAA5 monitoring for groundwater systems that disinfect:

— Water systems serving 10,000 or more – one sample/plant/quarter

— Water systems serving < 10,000 – one sample/year/quarter (warmest month)

Systems using surface water sources and conventional filtration treatment must monitor

source water for total organic carbon (TOC) and alkalinity monthly and practice enhanced coagulation to remove TOC if it exceeds 2.0 mg/L as a running annual average. TOC is an indicator of the levels of DBP precursor compounds in the source water.

Lead and Copper Monitoring: Samples from community systems are collected from homes with lead-soldered plumbing built prior to the 1985 prohibition of lead solder in Oregon. One-liter samples of standing water (first draw after six hours of non-use) are collected at homes identified in the water system sampling plan. Nontransient noncommunity systems sample at high-risk locations as identified in their sampling plan. The number of samples required for initial and subsequent monitoring is summarized below:

Water System Population	Initial Sample
>100,000	100
50,001 – 100,000	50
10,001 – 50,000	30
3,301 – 10,000	20
501 – 3,300	10
101 – 500	5
<101	5

Two rounds of initial sampling for lead and copper are required, collected at six-month intervals. Subsequent annual sampling from the reduced number of sites is required after demonstration that lead and copper action levels are met. After three rounds of annual sampling, samples are required every three years.

Inorganic Chemical Monitoring: *Nitrate* — community and nontransient noncommunity systems must sample quarterly for surface water sources (reduction to annual available), and annually for groundwater sources. All non-community and state-regulated water systems must sample annually.

Asbestos — community and nontransient noncommunity systems with asbestos-cement water

pipes or with water sources in geologic asbestos deposit areas must sample every nine years.

Arsenic — community and nontransient noncommunity systems begin monitoring and comply with the new standard by January, 2006. Water systems with surface water sources must sample annually, and systems with groundwater sources must sample every three years.

All other inorganics — community and nontransient noncommunity systems must sample surface water sources annually and groundwater sources every three years. Waivers are available based on monitoring record showing three sampling rounds below MCLs. All noncommunity and state regulated water systems must sample once for inorganics, and arsenic.

Organic Chemical Monitoring: At least one test for each contaminant from each water source is required during every three-year compliance period. Public water systems serving more than 3,300 people must test twice during each three-year compliance period for SOCs. Public water systems using surface water sources must test for VOCs annually. Quarterly follow up testing is required for any contaminants that are detected above specified levels. The exceptions are dioxin and acrylamide/epichlorohydrin. Only those systems determined by DHS to be at risk of contamination must monitor for dioxin. Water systems using polymers containing acrylamide or epichlorohydrin in their water treatment processes must keep their dosages below specified levels.

Radiological Monitoring: Initial tests, quarterly for one year at the entry point from each source, must be completed prior to December 31, 2007 for gross alpha, radium-226, radium-228 and uranium. A single analysis for all four contaminants collected between June 2000 and December 2003 will substitute for the four initial samples. Gross alpha may substitute for radium 226 monitoring if the gross alpha result does not exceed 5 pCi/L. Gross alpha may substitute for uranium monitoring if the gross alpha result does not exceed 15 pCi/L. Subsequent monitoring every three, six, or nine years, depending on initial results, with a return to quarterly monitoring if the MCL is exceeded. Only those communities with water supplies potentially impacted by manmade radiation sources as

designated by DHS, must sample for beta/photon radiation, iodine-131, strontium-90, or tritium.

There are now EPA-established drinking water quality standards for 91 contaminants, including seven microbials and turbidity, seven disinfection byproducts and residuals, 16 inorganics (including lead and copper), 56 organics, and five radiological contaminants. These standards either have established MCLs or treatment techniques. With so many monitoring and reporting requirements, it is important to remember that *you* the water system is responsible to make sure the tests are done on time and reported on time. Laboratories are responsible for performing the analysis and reporting the results to the Department. It is also important to check your system's progress by going on the DWP website and checking for confirmation that reports and results are correct and timely. Additionally, not everyone is on the same frequency for monitoring requirements. Some of you have waivers to perform reduced monitoring! The EPA website also has a spreadsheet that may help understand the monitoring requirements. You can find it by going to - www.epa.gov/ogwdw000/publicoutreach/quickreferenceguides.html.

Once there, click on 'EPA Standardized Monitoring Framework'. If you are interested in "Test Tracking", you may call our office and be placed on a 'list of interested parties'. Should that list grow to a substantial number of interested parties, we will begin to provide such assistance to our members at membership rates. Oregon Association of Water Utilities would like to help you! **Stay on Track!**