

DRINKING WATER AND THE UNREGULATED CONTAMINANT MONITORING REGULATION (UCMR)

A TOOL TO FIND CONTAMINANTS



This fact sheet describes the Unregulated Contaminant Monitoring Regulation (UCMR). It provides information for water systems and consumers.

What Is the Unregulated Contaminant Monitoring Regulation?

UCMR is a tool for the U.S. Environmental Protection Agency (EPA) to find unregulated contaminants of concern in the nation's drinking water. The Safe Drinking Water Act gives EPA the responsibility to protect public health and to set minimum standards for drinking water. To do this, EPA identifies contaminants that might be harmful to human health. (A contaminant is any physical, chemical, biological, or radiological substance or matter in water.) EPA then determines whether to set drinking water standards for individual contaminants or to require water providers to use certain treatment processes to reduce or eliminate contaminants in the drinking water.

As a part of this process, EPA works with local water systems to periodically test the water that is delivered to consumers' homes for contaminants that are not regulated. This helps EPA to know whether these contaminants occur often enough and at high enough levels to warrant further attention. This testing takes place as part of the Unregulated Contaminant Monitoring Regulation, or UCMR. EPA is currently implementing the second cycle of UCMR testing (with monitoring taking place from 2008-2010), called UCMR2.

Which Water Systems Participate in UCMR2?

EPA requires all public water systems serving more than 10,000 people to participate. EPA also requires some smaller systems serving 10,000 people or fewer to participate. EPA selects smaller systems based on factors such as the number of people they serve, where they are located, and whether they use water from a source such as a river or a well. Together, these water systems gather the information EPA needs to determine if and how often these contaminants occur in drinking water. Almost 5,000 systems are participating in UCMR2.

What Contaminants Are Systems Looking for as Part of UCMR2?

EPA considered more than 200 contaminants for further testing and selected 25 that it considers most important. (EPA can select up to 30 contaminants every five years.) The contaminants were selected for three main reasons:

- EPA believes that they are likely to occur in drinking water.
- They could be harmful.
- There are testing methods to look for them in drinking water.

EPA divided the 25 contaminants into two lists. The 10 "List 1" (Assessment Monitoring) contaminants are monitored using testing methods that are more widely used. They include flame retardants (materials that stop fires from spreading), contaminants used in explosives, and contaminants related to insecticides. The 15 "List 2" (Screening Survey) contaminants are monitored using testing methods that are relatively new. They include nitrosamines (chemical compounds that exist in sources of drinking water or that form when disinfectants are added to water to kill microbes), herbicides (used to kill unwanted plants), and herbicide degradate (formed when herbicides change in the natural environment).

Spotlight on NDMA and Other Nitrosamines

Nitrosamines are chemical compounds that can be present in water. NDMA is among the more studied of the six nitrosamines being monitored as a part of UCMR2.

EPA is currently evaluating the health effects of nitrosamines. Nitrosamines can exist in sources of drinking water or can form when disinfectants are added to water to kill microbes. As a part of UCMR2, thousands of water systems are collecting information on how often nitrosamines occur in drinking water.

This UCMR2 testing will give EPA information on how often and at what levels nitrosamines occur in drinking water. EPA will use the UCMR2 results, along with health effects and other information, to determine whether nitrosamines warrant further attention.

UCMR and the Contaminant Candidate List

UCMR is closely coordinated with EPA's Contaminant Candidate List, or CCL. EPA uses both of these programs to identify drinking water contaminants of concern. Both programs focus on contaminants that are not currently regulated.

EPA uses the best available information to decide which contaminants should be on the CCL, selecting unregulated contaminants of highest interest to EPA for further review. The CCL lists contaminants that may harm health, may occur in public water systems, and may require drinking water regulation. Some of the CCL contaminants require further research. This could include research on the following:

What contaminants are in water and how often they occur.

What methods are appropriate to detect contaminants.

How contaminants affect health.

How to remove contaminants from water.

EPA uses the CCL as its primary source from which to select UCMR contaminants. Priority is given to contaminants where testing methods are available and where little is known about how often the contaminant occurs in drinking water.

UCMR results can also inform CCL priorities if UCMR contaminants are detected in drinking water, and if these contaminants are not on a current CCL.

What Does UCMR2 Participation Involve? What Does It Cost?

Participating systems collect samples of drinking water and have them tested for UCMR contaminants. The largest water systems (serving more than 100,000 people) are testing for all 25 UCMR2 contaminants. Water systems serving 10,001 to 100,000 people are testing for all 10 contaminants on List 1. Some of these systems are also testing for the additional 15 contaminants on List 2. Selected small water systems (serving 10,000 or fewer people) are testing for either List 1 or List 2 contaminants (but not both). Large systems are paying their own testing costs (\$190-\$370 per sample, per testing method, on average). EPA is paying the testing costs for small systems and managing the analysis of small system samples.

What Will EPA Do With This Occurrence Information?

EPA will use this information on what contaminants are occurring in drinking water to help decide which contaminants might need to be regulated. When deciding to regulate a contaminant, EPA is required to consider the following:

- Whether the contaminant has the potential to harm human health.
- How often the contaminant occurs in public drinking water.
- Whether regulation presents a meaningful opportunity to reduce public health risks.

As a part of this process, EPA evaluates whether contaminants are occurring at levels that could harm humans. UCMR data help EPA to make this decision by providing information on how often, and at what levels, contaminants occur in drinking water.

What Does This Information Mean to Me?

Contaminant monitoring is part of a larger process that EPA, States, Tribes, water systems, and other partners use to protect drinking water. Health information is necessary to know whether these contaminants pose a health risk, but it is often incomplete for unregulated contaminants and is frequently being studied at the same time UCMR monitoring is taking place. Some contaminants maybe harmful at low levels; others maybe harmful only at much higher levels. UCMR is a tool to find out what is in the drinking water, but additional information is needed to know whether these contaminants pose a health risk.

How Can I Find Out the Results?

If a water system is participating and finds contaminants in the drinking water, they will provide the information to their customers in an annual water quality report (called a Consumer Confidence Report). This includes both regulated and unregulated contaminants. Systems mail these reports directly to customers, and many reports are available from EPA's Web site. EPA will also make the results available on-line via its National Contaminant Occurrence Database. These results will be posted on an ongoing basis after they have been reviewed for quality.

How Can I Learn More?

- General information on drinking water is available at EPA's drinking water Web site (www.epa.gov/safewater) or by calling the Safe Drinking Water hotline (800-426-4791).
- Additional information on UCMR is available at www.epa.gov/safewater/ucmr/index.html.