



Unregulated Contaminant Monitoring Regulation: Monitoring for List 1 Contaminants by Selected Small Public Water Systems

Introduction

Section 1445(a)(2) of the Safe Drinking Water Act (SDWA), as amended in 1996, requires the U.S. Environmental Protection Agency (EPA) to establish criteria for a program to monitor unregulated contaminants in drinking water and to publish a list of the contaminants to be monitored. A randomly selected sample of 800 community water systems (CWSs) and non-transient, non-community water systems (NTNCWSs) that serve 10,000 or fewer persons (small systems) will monitor their water for these contaminants. EPA will pay the costs of shipping the samples and analyzing them in a laboratory. The purpose of this monitoring is to collect data to support the U.S. EPA Administrator's decisions regarding whether or not to regulate contaminants such as those on the Drinking Water Contaminant Candidate List to protect public health.

To implement this requirement, EPA promulgated the revisions to the Unregulated Contaminant Monitoring Regulations (UCMR) for Public Water Systems (PWSs). Published on September 17, 1999, and supplemented on March 2, 2000 and January 11, 2001, the regulation substantially revised the previous Unregulated Contaminant Monitoring program and specified:

- C Which PWSs must monitor
- C How a randomly selected sample set of small PWSs will be chosen to monitor
- C Which contaminants systems must monitor
- C When, where, and how often samples must be taken
- C Which laboratory methods are to be used for analyzing the samples
- C What quality control procedures, in addition to those in the laboratory methods, must be followed
- C What the requirements are for reporting the results of the monitoring
- C What roles the States and Indian Tribes will play in implementing the monitoring program.

EPA has organized the contaminants on the UCMR (1999) List into three lists based on the availability of analytical methods to detect their presence in drinking water and the type of monitoring to be conducted: List 1, Assessment Monitoring, consists of 12 chemical contaminants for which standard analytical methods are available; List 2, Screening Survey, consists of 16 contaminants for which there are new analytical methods that will be used; and List 3, Pre-Screen Testing, consists of 9 contaminants for which analytical methods are being researched. This fact sheet is concerned with List 1, Assessment Monitoring. Table 1 identifies the List 1 contaminants and their uses or environmental sources.

What Systems Must Monitor for List 1 Contaminants? (See §141.40(a)(1))

A randomly selected sample of 800 small water systems will conduct Assessment Monitoring, to establish a statistically valid data set. These systems are part of their State's Monitoring Plan. If your system is among those selected, you should have been notified by your State drinking water agency or EPA. EPA will also select 30 of the 800 systems to be "Index Systems." These systems must monitor every year during the 5-year UCMR listing cycle. They also must report on their operating conditions, such as water source and pumping rates. Small system monitoring will be paid for by EPA, including provisions for sampling equipment, and sample shipping, testing, and analysis.

Table 1: UCMR (1999) List 1 Contaminants and Their Uses or Sources		
Contaminant	CASRN	Use or Environmental Source
2,4-dinitrotoluene	121-14-2	Used in the production of isocyanate, dyes, and explosives
2,6-dinitrotoluene	606-20-2	Used as a mixture with 2,4-dinitrotoluene (similar uses)
Acetochlor	34256-82-1	Herbicide used with cabbage, citrus, coffee, and corn crops
DCPA mono acid; DCPA di acid	887-54-7; 2136-79-0	Degradation products of DCPA; an herbicide used on grasses and weeds with fruit and vegetable crops; the two DCPA degradates are measured and reported as a single analyte
4,4'-DDE	72-55-9	Degradation product of DDT; a general insecticide
EPTC	759-94-4	Herbicide used on annual grasses and weeds, with potatoes and corn
Molinate	2212-67-1	Selective herbicide used with rice; controls watergrass
MTBE	1634-04-4	Octane enhancer in unleaded gasoline
Nitrobenzene	98-95-3	Used in the production of aniline, which is used to make dyes, herbicides, and drugs
Perchlorate	14797-73-0	Oxygen additive in solid fuel propellant for rockets, missiles, and fireworks
Terbacil	5902-51-2	Herbicide used with sugarcane, alfalfa, and some fruit, etc.

When and How Often Must Monitoring Occur? (See §141.40(a)(5))

The effective implementation date of the Assessment Monitoring requirement is January 1, 2001. Small system Assessment Monitoring must occur during 1 year of the 3-year period from January 1, 2001 to December 31, 2003, as specified in the State's Monitoring Plan. Monitoring will be conducted at about one-third of the selected small systems each year.

The State or EPA will specify the year and months in which each selected small system must conduct Assessment Monitoring. At least one sample must be taken between May 1 and July 31, when the water system is vulnerable to contamination, or during another period of greatest vulnerability, as specified by the State or EPA. Small systems that use surface water or ground water under the influence of surface water as sources must sample four times per year (once every 3 months). Samples will be taken from ground water systems twice during the one year of Assessment Monitoring: once during the period of greatest vulnerability, and 5 to 7 months before or after the vulnerable period sampling.

From Where Must Samples be Taken? (See §141.40(a)(5))

Assessment Monitoring samples must be taken at the entry points to the distribution system, such as the representative Phase II/V sampling points specified by the State, unless otherwise specified by the State or EPA. If your State requires source water monitoring, inquire with your State or EPA drinking water program contact for further guidance. Small systems must collect the samples with EPA-supplied equipment and send them to EPA-specified laboratories. (In some cases, the State may elect to collect the samples, especially if the State already collects samples from a system for regulated contaminant monitoring. The State will inform systems of their responsibilities if the State elects to collect the samples.) EPA will pay for shipping the unregulated contaminant monitoring samples, testing by the EPA-specified laboratory, and reporting of the analytical results for these small systems.

How Are the Samples to be Analyzed? (See §141.40(a)(5) and Appendix A)

Samples are to be analyzed by an EPA-specified laboratory, which will be required on contract to adhere to the UCMR's quality control (QC) specifications. (For details, see the *Unregulated Contaminant Monitoring Regulation Analytical Methods and Quality Control Manual* [EPA 815-R-00-006] and its supplements.) EPA currently has contracts in place to analyze samples taken at small systems.

What Data Must be Reported to EPA? (See §141.35(d))

Analytical results that are reported must include the UCMR Data Elements listed in Table 2. Many of these are QC measures and will be provided by the laboratory.

How Will the Monitoring Data be Reported to EPA? (See §141.35(e))

Small systems will not have to report monitoring results directly to EPA. Instead, EPA will arrange to receive the results from the designated contract laboratory; copies will be sent to the system and to the State. The system will have 30 days to review and comment on the data. EPA will wait for an additional 60 days before placing the data in the National

Drinking Water Contaminant Occurrence Database to allow for review by the system and the State. Each small system, however, is still responsible for ensuring compliance with State reporting requirements.

Are There Requirements for Notifying the Public?

Yes. Under the Consumer

Confidence Report (CCR) Rule, as specified in 40 CFR §141.153(d), CWSs must report the monitoring results whenever unregulated contaminants are detected. CCRs are to be sent to all billing customers each year by July 1. (The CCR Rule does not apply to non-community water systems.) In addition, the Public Notification Rule (40 CFR §141.207), published on May 4, 2000 (65 FR 25981), requires PWSs to notify the public annually that the results of monitoring for unregulated contaminants are available. Therefore, CWSs and NTNCWSs must provide public notice if they are required to monitor for unregulated contaminants. Details on these reporting requirements can be found in the documents *Preparing Your Drinking Water Consumer Confidence Report* (EPA 816-R-99-002) and *Public Notification Handbook* (EPA 816-R-00-010). Both are available on the Web at www.epa.gov/safewater.

Where Can I Get More Information?

More information on the UCMR is available from the following sources:

- C *Federal Register* notices of September 17, 1999 (64 FR 50556), March 2, 2000 (65 FR 11372), and January 11, 2001 (66 FR 2273).
- C The EPA Office of Ground Water and Drinking Water Web Site (www.epa.gov/safewater/ucmr.html).
- C *Unregulated Contaminant Monitoring Regulation Analytical Methods and Quality Control Manual* (EPA 815-R-00-006).
- C *Supplement A to the Unregulated Contaminant Monitoring Regulation Analytical Methods and Quality Control Manual* (EPA 815-R-00-002).
- C *Unregulated Contaminant Monitoring Regulation Guidance for Operators of Public Water Systems Serving 10,000 or Fewer People* (EPA 815-R-01-002).
- C The Safe Drinking Water Hotline (800 426-4791).

EPA is developing additional guidance materials, so check the Office of Ground Water and Drinking Water Web Site often for the latest information about them.

Table 3, at right, lists UCMR contacts in the EPA regional offices and the Agency's Technical Support Center in Cincinnati, OH.

Public Water System (PWS) Identification Number	Analytical Method Number
PWS Facility Identification Number – Identification Number and Sampling Point Type Identification	Sample Analysis Type
Sample Collection Date	Sample Batch Identification Number
Sample Identification Number	Minimum Reporting Level
Contaminant/Parameter	Minimum Reporting Level Unit of Measure
Analytical Results – Sign	Analytical Precision
Analytical Results – Value	Analytical Accuracy
Analytical Results – Unit of Measure	Spiking Concentration
Note: Small systems must provide information in bold , or ensure that it is correct.	

EPA	Contact	Telephone
Region 1	Chris Ryan	617 918-1567
Region 2	Robert Poon	212 637-3821
Region 3	Michelle Hoover	215 814-5258
Region 4	Janine Morris	404 562-9480
Region 5	Janet Kuefler	312 886-0123
Region 6	Andrew J. Waite	214 665-7332
Region 7	Stan Calow	913 551-7410
Region 8	Rod Glebe	303 312-6627
Region 9	Jill Korte	415 744-1853
Region 10	Gene Taylor	206 553-1389
Technical Support Center	Dan Hautman	513 569-7948