

The Fourth Unregulated Contaminant Monitoring Rule (UCMR 4)

Metals, Pesticides, Alcohols, SVOCs – Fact Sheet for Assessment Monitoring

Overview

EPA published the “Revisions to the Unregulated Contaminant Monitoring Rule (UCMR 4) for Public Water Systems and Announcement of Public Meeting” on December 20, 2016 (81 FR 92666). UCMR 4 includes Assessment Monitoring for a total of 30 chemical contaminants including two metals, eight pesticides plus one pesticide manufacturing byproduct, three alcohols, and three semivolatile organic chemicals (SVOCs), as shown in the table below. UCMR 4 also requires Assessment Monitoring for:

- Three brominated haloacetic acid (HAA) disinfection byproducts groups and the indicators total organic carbon (TOC) and bromide.
- Nine cyanotoxins and one cyanotoxin group.

Monitoring under UCMR 4 will occur from 2018-2020. For more information on these contaminants, please refer to the respective [UCMR 4 Fact Sheets](#).

Assessment Monitoring (Metals, Pesticides, Alcohols, SVOCs)

Metals: EPA Method 200.8, ASTM D5673-10, SM 3125³

Contaminant	CASRN ¹	MRL ² (µg/L)	Additional Information
germanium	7440-56-4	0.3	Naturally-occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications
manganese	7439-96-5	0.4	Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient

Pesticides and a Pesticide Manufacturing Byproduct: EPA Method 525.3

Contaminant	CASRN ¹	MRL ² (µg/L)	Additional Information
alpha-hexachlorocyclohexane	319-84-6	0.01	Component of benzene hexachloride (BHC); formerly used as an insecticide
chlorpyrifos	2921-88-2	0.03	Organophosphate; used as an insecticide, acaricide and miticide
dimethipin	55290-64-7	0.2	Used as a herbicide and plant growth regulator
ethoprop	13194-48-4	0.03	Used as an insecticide
oxyfluorfen	42874-03-3	0.05	Used as a herbicide
profenofos	41198-08-7	0.3	Used as an insecticide and acaricide
tebuconazole	107534-96-3	0.2	Used as a fungicide
total permethrin (cis- & trans-)	52645-53-1	0.04	Used as an insecticide
tribufos	78-48-8	0.07	Used as an insecticide and cotton defoliant

Alcohols: EPA Method 541

Contaminant	CASRN ¹	MRL ² (µg/L)	Additional Information
1-butanol	71-36-3	2.0	Used as a solvent, food additive and in production of other chemicals
2-methoxyethanol	109-86-4	0.4	Used in a number of consumer products, such as synthetic cosmetics, perfumes, fragrances, hair preparations and skin lotions
2-propen-1-ol	107-18-6	0.5	Used in the production flavorings, perfumes and other chemicals

Semivolatile Chemicals: EPA Method 530

Contaminant	CASRN ¹	MRL ² (µg/L)	Additional Information
butylated hydroxyanisole	25013-16-5	0.03	Used as a food additive (antioxidant)
o-toluidine	95-53-4	0.007	Used in the production of dyes, rubber, pharmaceuticals and pesticides
quinoline	91-22-5	0.02	Used as a pharmaceutical (anti-malarial) and flavoring agent; produced as a chemical intermediate; component of coal

1. CASRN - Chemical Abstracts Service Registry Number

2. MRL - Minimum Reporting Level

3. ASTM – ASTM International; SM – Standard Methods

- **Applicable Water Systems:** Community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) serving more than 10,000 retail customers (i.e., large systems) and a representative sample of 800 CWSs and NTNCWSs serving 10,000 or fewer retail customers (i.e., small systems).
- **Timeframe and Frequency:** For surface water and ground water under the direct influence of surface water systems, sampling will take place for four consecutive quarters over the course of 12 months; a total of four sampling events that occur three months apart. For ground water systems, sampling will take place twice over the course of 12 months; a total of two sampling events that occur five to seven months apart.
- **Monitoring Locations:** Sample collection will take place at the entry point to the distribution system (EPTDS). With prior approval, large ground water systems that have multiple EPTDSs can sample at representative sampling locations rather than at each EPTDS. Systems that purchase water with multiple connections from the same wholesaler may select one representative connection from that wholesaler. This EPTDS sampling location must be representative of the highest annual volume connections.
- **Laboratories:** Samples must be analyzed by [EPA UCMR approved laboratories](#).
- **Occurrence Data:** The analytical results from UCMR 4 are stored in the [National Contaminant Occurrence Database \(NCOD\)](#). For a summary of the NCOD results, tips for querying NCOD, and health effects information (including reference concentrations, where available), please refer to the [UCMR 4 Data Summary document](#).

Critical Deadlines and Requirements

Following Rule Publication

Due Date	Requirement	Report through SDWARS ¹	Contact Sampling Coordinator ²
December 31, 2017	Large systems must update contact information, zip code(s), sampling location(s), inventory information and monitoring schedule. With the exception of monitoring schedule changes, any subsequent changes must be submitted within 30 days of the change occurring. EPA will coordinate with the small systems to collect the contact information, zip code(s) and inventory information. After December 31, 2017, systems must provide an explanation for any requested schedule change and obtain EPA approval of the change.	X	X (after December 31, 2017)
February 21, 2017	Laboratories seeking approval must submit a registration form to participate in the laboratory approval process.		X
April 19, 2017	Laboratories must complete and submit the necessary laboratory approval application materials.		X
October 31, 2017	Large ground water systems that wish to monitor from representative EPTDSs must submit their plan previously approved by EPA or a state (i.e., under a prior UCMR cycle) or a proposal for a new representative sampling plan. Note: the original deadline of April 19, 2017 was extended to provide greater opportunities for PWSs to reduce their monitoring.		X

Following Sample Collection

Due Date	Requirement	Report through SDWARS ¹	Contact Sampling Coordinator ²
Within 120 days of sample collection	Laboratories post data to SDWARS.	X	
Within 60 days of lab posting data	PWSs review and approve the data. If the PWS has not taken action after 60 days, the data are considered approved and ready for state and EPA review.	X	

1. [Safe Drinking Water Accession and Review System](#).
2. Contact via email at UCMR_Sampling_Coordinator@epa.gov.

Data Elements

EPA will collect the following data elements in SDWARS 4, an updated version of the data reporting system used in previous UCMR actions.

Public Water System Identification (PWSID) Code	Sampling Point Identification Code	Sample Collection Date	Analysis Batch Identification Code	Laboratory Identification Code
Public Water System Name	Sampling Point Name	Sample Identification Code	Analysis Date	Sample Event Code
Public Water System Facility Identification Code	Sampling Point Type Code	Contaminant	Sample Analysis Type	
Public Water System Facility Name	Disinfectant Type	Analytical Method Code	Analytical Results–Sign	
Public Water System Facility Type	Treatment Information	Extraction Batch Identification Code	Analytical Result–Measured Value	
Water Source Type	Disinfectant Residual Type	Extraction Date	Additional Value	

Additional Information

The [Public Notification Rule](#) (40 CFR 141.207) requires PWSs to notify the persons served of the availability of the results no later than 12-months after monitoring results are known. CWSs may include their public notice within their Consumer Confidence Reports (CCRs).

Under the [Consumer Confidence Report \(CCR\) Rule](#) (40 CFR 141.153(d)) requires CWSs to 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). To obtain a copy of your CCR, you should contact your water supplier or you may find information for how to obtain a copy of the CCR in your water bill. Additional information about the CCR including details on reporting requirements can be found on the [CCR Homepage](#).

For More Information

- [Safe Drinking Water Hotline](#): 1-800-426-4791
- [CDX/SDWARS Help Desk](#): 1-888-890-1995
- [UCMR Homepage](#)