

The Third Unregulated Contaminant Monitoring Rule (UCMR 3)

Fact Sheet for Pre-Screen Testing of List 3 Contaminants

Overview of the Rule

- ❖ **Title:** Revisions to the Unregulated Contaminant Monitoring Rule for Public Water Systems; 77 FR 26072, May 2, 2012.
- ❖ **Purpose:** To collect occurrence data for contaminants suspected to be present in drinking water but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). Pre-Screen Testing addresses contaminants that are analyzed with methods that utilize very new or specialized technology. The UCMR program is the primary source of drinking water contaminant occurrence data used by EPA in regulatory determinations.
- ❖ **Description:** UCMR 3 includes Pre-Screen Testing for two List 3 viruses (enterovirus and norovirus), using an analytical method with two detection assays. Monitoring will also include five pathogen indicators. EPA will sample for public water systems (PWSs) subject to Pre-Screen Testing within a 12-month period during 2013 - 2015.
- ❖ **Utilities Affected:** A representative sample of 800 non-disinfecting ground water systems serving 1,000 or fewer retail customers, including community water systems (CWSs), non-transient non-community water systems (NTNCWSs) and transient systems are required to participate in Pre-Screen Testing. EPA will pay for all associated sampling and analysis costs.

UCMR 3 List 3 Contaminants

Contaminant	Detection Assay	Transmission	Health Effects
enterovirus	Cell culture; qPCR ¹	Exposure to fecally-contaminated water or consumption of food exposed to the contaminated water	<p>Clinical Manifestation: Asymptomatic or mild illness; can cause fever, pharyngitis, respiratory illness, rash, herpangina, conjunctivitis; hand-foot-mouth disease from coxsackievirus A16; severe cases may result in aseptic meningitis, encephalitis, myocarditis, and/or blood infection in newborns; most cases are self-limiting</p> <p>Sensitive Sub-populations: newborns, infants, children and young adults at highest risk of infection</p> <p>Duration: respiratory and exanthematous (rash) illness usually 2 - 4 days; duration of pharyngitis, vesicular stomatitis, etc. usually 4 - 10 days; conjunctivitis usually less than 10 days (7 - 15 days)</p> <p>Infectious Dose (ID50): 4.79x10¹ PFU for coxsackievirus</p>
norovirus	qPCR ¹	Exposure to fecally-contaminated water or consumption of food exposed to the contaminated water	<p>Clinical Manifestation: Vomiting, diarrhea, cramps, mild fever; self-limiting</p> <p>Sensitive Sub-populations: Newborns and premature infants</p> <p>Duration: Symptoms last 24 - 72 hours</p> <p>ID50: 10 virus particles (highly contagious)</p>

1. qPCR - quantitative polymerase chain reaction

Indicators

- ❖ **Indicator Monitoring:** Systems selected for Pre-Screen Testing will also be subject to monitoring for microbial indicators. This monitoring will be conducted in conjunction with the virus monitoring to gain a better understanding of pathogen indicator and viral co-occurrence and to gain more exposure and health risk information on viruses and indicators in undisinfected ground water systems. The pathogen indicators are:

• Total coliforms	• <i>E. coli</i>	• <i>Enterococci</i>	• Bacteriophage	• Aerobic spores
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Monitoring

- ❖ **Time frame:** One consecutive 12-month period during January 2013 - December 2015 (monitoring can span more than one calendar year, as long as conducted during a consecutive 12-month period).
- ❖ **Frequency:** Monitoring will occur twice in a consecutive 12-month period; sample events must occur 5 - 7 months apart.
- ❖ **Location:** Entry point to the distribution system (EPTDS) for all contaminants.
- ❖ **Laboratories:** If any system is notified by EPA or its state that it has been selected for Pre-Screen Testing, the system must permit EPA to sample and analyze for List 3 contaminants and pathogen indicators. Monitoring and analyses are organized and paid for by EPA through direct contracts.

UCMR List 3 Data Elements

Public Water System Identification (PWSID) Code	Sampling Point Identification Code	Sample Identification Code	Sample Analysis Type	Laboratory Identification Code
Public Water System Facility Identification Code	Sampling Point Type Code	Contaminant	Analytical Results – Sign	Sample Event Code
Water Source Type	Sample Collection Date	Analytical Method Code	Analytical Result – Value	

Additional Information

The **Public Notification Rule** (40 CFR §141.207), published on May 4, 2000 (65 FR 25982) with amendments and corrections included in the Code of Federal Regulations for the Public Notification Rule published on July 1, 2006, requires PWSs to notify the public annually that the results of monitoring for unregulated contaminants are available. CWSs may include their public notice within their CCRs. Details on these reporting requirements can be found in the document: Revised Public Notification Handbook (EPA 816-R-09-013), available on EPA's website at: <http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/upload/PNrevisedPNHandbookMarch2010.pdf>

Public Notification Handbook for Transient Non-Community Water Systems (EPA 816-R-09-009) available on EPA's website at: <http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/upload/publicnotificationhandbookfortransientnoncommunitywatersystemsmarch2010.pdf>

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). Details on these reporting requirements can be found on the CCR Home Page at:

<http://water.epa.gov/drink/info/ccr/regulations.cfm>

For More Information

- ❖ Safe Drinking Water Hotline: (800) 426 – 4791
- ❖ CDX/SDWARS Help Desk: (888) 890 – 1995
- ❖ <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/>