



UCMR Update



*A New Year...a new group of small systems...
To those sampled in 2001, thanks for your participation
For those scheduled for 2002, may you be waiting in anticipation
And for those waiting till 2003, we hope our sanity survives the duration?*

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UCMR Update

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UCMR Monitoring Continues...into a NEW YEAR!

UCMR Update Issue Number 3 - This information sheet, the **UCMR Update**, is the third one to be issued by the Technical Support Center (TSC) of the Office of Ground Water and Drinking Water (OGWDW). Future issues will be distributed as needed to maintain information flow related to the UCMR.

Editor's Note: We apologize for the delay in publishing Issue 3, as the latest version of the UCMR Update. For those of you that may not recall, UCMR is the acronym for the Unregulated Contamination Monitoring Rule. Our former editor, Jim Walasek, chose to retire last Spring (sailing must be more fun than editing) and in his absence, his supporting role and contributions as a member of our UCMR implementation team became painfully evident. Recently, Rayshawn Askew has stepped in to take his place in bringing you the latest news on the UCMR as editor of a reader friendly newsletter that is guaranteed to keep you awake. Without further delay, we're back in business. Regardless of this delayed publication, monitoring for UCMR continued to flow in stride throughout 2001 with many things warranting coverage in this issue. Look for articles covering SDWARS/UCMR, Revised Guidance Documents, Small System Sampling Success, and Preparing for List 2 Chemical Monitoring at Large Systems.

SDWARS/UCMR

Did you hear the GOOD news about that UCMR data

system? -On October 1, 2001, the much anticipated and overdue data system known as the **Safe Drinking Water Accession and Review System (SDWARS/UCMR)** became fully operational. Some of you may have begun to doubt whether the system would ever be made available for reporting before the end of the monitoring period in 2003. System development

complexities initially forced EPA to delay the reporting system from January 2001 until July 1, 2001. Throughout the winter and spring of 2001, development efforts and testing continued. While the system was nearly ready by July 2001, EPA concluded that additional testing was warranted and again delayed the system. By September 2001, things were finally coming together and full system functionality as a production database began on the first of October.

Did you hear the GREAT news about that UCMR data

system?- SDWARS/UCMR not only became available in October but laboratories and public water systems (PWSs) have been using the system and IT WORKS!! As of January 25, a total of 1,591 samples have been reported from 30 laboratories. These samples represent 8,525 individual analyte results. In addition, over 1,200 users have registered through Central Data Exchange (CDX) for the system.

IMPORTANT CLARIFICATION: Small PWSs (serving <10,000) reporting responsibilities --- You can not register or report through the SDWARS/UCMR system!

- EPA will issue you a hard copy report of your UCMR monitoring results and will be issuing a copy of this report concurrently to your state. Upon receipt of these data, review the report and if you have any questions contact the small system UCMR sampling coordination contractor, Great Lakes Environmental Center (GLEC) at 231-941-2230. No further action is required by the small systems for submission of data to U.S. EPA. You should contact your state drinking water administrator to see if they have additional reporting requirements for these data. You should recognize that other regulatory reporting requirements, such as the Public Notification Rule and requirements specific to Consumer Confidence Reports apply. All PWSs (large and small) monitoring for unregulated contaminants, especially those that sampled in 2001 need to remember that Subpart O of the Consumer Confidence Report Rule and Subpart Q of the Public Notification Rule apply to the unregulated contaminants.

What do you need to know about how this SDWARS/UCMR reporting system works?

- The process should be simple as long as the responsible individuals at the laboratories and PWSs understand the basic requirements of the electronic reporting system. Data flow through the system is initiated when a laboratory posts and approves their client's data for submission to the PWS. PWSs then approve these results as their official UCMR monitoring report satisfying their regulatory requirement. These approved data can then be concurrently reviewed by EPA and the respective State. PWSs need to know that only they (or someone they designate as their representative) can approve data to be submitted to the U.S. EPA via SDWARS/ UCMR.

I. Initial Steps - *What do laboratories and PWSs need to use SDWARS/UCMR?*

- ❖ Personal Computer (PC) with a 486 processor; a Pentium I or above is recommended.
- ❖ Microsoft Windows operating system (*Note: Testing indicated newer Macintosh systems are also compatible*): Windows 95B Y2K Service pack installed (Original Equipment Manufacturer Service Release 2); Windows 98; Windows NT3.0 (Service Pack 5); or Windows 2000.
- ❖ An Internet Service Provider (ISP) or public access to a PC (e.g., local library).

- ❖ Internet Explorer with the required 128-bit security encryption. This encryption strength provides greater security. It's a free download and comes standard on Internet Explorer 5.5 or higher.
- ❖ An active account for SDWARS/UCMR through USEPA's Central Data Exchange (CDX), the agency's electronic reporting site, which serves as a central point for receiving legally acceptable data in various formats.

Now you're asking - What is Central Data Exchange (CDX) and how does it relate to SDWARS/UCMR?

CDX is the USEPA's new secure web portal designed to support the exchange of environmental data between USEPA and its external partners. Over the next several years, CDX is expected to expand to become the secure point of entry for most Internet-based, electronic environmental data submissions to the agency. SDWARS/UCMR is the specific database that can only be accessed through the secure CDX portal.

CDX should also improve collection, management, and sharing of environmental information among states, tribes and USEPA so that all entities can achieve their respective and shared environmental goals. Laboratory personnel who must post UCMR data and authorized PWS representatives who will review these data must establish active CDX accounts specifically for entry into SDWARS/UCMR. These individuals, once registered on behalf of the organizations they represent, are able to conduct business in a Web-based system that provides a secure data exchange environment.

II. Setting up a CDX account

To set up an account through CDX, log on to the web site at <<http://epacdx.lmi.org>>, then follow the directions to electronically register with CDX and submit the required sponsor letter from an official representative of your organization (e.g., Laboratory Director or PWS Chief Administrator) and prepared on corporate letterhead. A sample sponsor letter is available from the web site. Every individual with UCMR reporting responsibilities for your organization must register electronically and be listed, along with their respective CDX user identification and position, in the sponsor letter. Once received and reviewed, qualified users will be notified by e-mail that their account is active. **IMPORTANT: At least one user within your organization (both laboratory and PWS) must have the "Role" of "Approver." Data will not flow through the SDWARS/UCMR system without approval both at the laboratory and PWS level. The available "Roles" depend upon whether you are a laboratory or a PWS.**

Laboratory users may identify themselves as either:

1. Reviewer – user that may **only view** data in SDWARS;
2. Submitter – user that may **only post or view** data to SDWARS;
3. Approver – user that may **view, post and approve** data forwarding to PWSs for review.

PWS users may identify themselves as either:

1. Reviewer – user that may **only view** data in SDWARS
2. Approver – user that may **view and approve** data to be passed onto EPA review.

SPECIAL REGISTRATION FOR GOVERNMENT USERS

Government users are considered representatives from the EPA, any State, tribe, or territory. These government users have access to review large quantities of data during the regulatory

defined 60 day review period but ONLY after PWSs have approved their respective UCMR results. Since this review is restricted to specific individuals within these government organizations, government user registration is unique and requires special clearance. Contact your UCMR EPA Regional representative or Jeffrey Bryan in the Infrastructure Branch for additional details (see contact information at the end of this UCMR Update).

III. Notification via e-mail: *You have an active PWS account, now what?*

Once a PWS has an active account, qualified staff can enter the SDWARS/UCMR to review the facility and sampling point inventory data for that system to confirm the accuracy of the information. A significant amount of inventory information is also included in SDWARS/UCMR, much of which may not be directly related to the UCMR monitoring effort. The additional information is to ensure that any special UCMR monitoring circumstances or requirements can be captured and included by the PWS. If your PWS has alphanumeric entries for both facility ID(s) and sampling point ID(s), then it is likely that your state has provided all the information we need regarding sampling locations.

If the sampling location data require editing or systems need to post new UCMR monitoring locations, SDWARS/UCMR can accommodate these corrections or additions, but PWSs are strongly advised to consult with their state drinking water program administrator first. By contacting the state, necessary changes can be made in the state's inventory records, ensuring consistency between the numbering convention used by the state and that adopted by the PWS.

When laboratories report UCMR monitoring data, they will need to include the exact information regarding the PWS ID (starting with the state postal code), the facility ID number, and the sampling point ID number as it is identified in SDWARS/UCMR.

IV. Notification via e-mail: *You have an active laboratory account, now what?*

Laboratories with active accounts need to first consider a few important issues.

- ❖ Are your client PWSs registered through CDX for SDWARS/UCMR?
- ❖ Have you asked your client PWS, or alternatively, looked at that client's inventory information through SDWARS/UCMR, to verify that the PWS ID, facility ID, and sampling point ID numbers they use to reference their samples are consistent with those listed in SDWARS/UCMR? Laboratories can access the inventory data of PWSs as "read only."
- ❖ How will your laboratory choose to enter the UCMR monitoring results into SDWARS/UCMR? A laboratory has three options for submitting UCMR monitoring results. These include submitting the data by hand using Web forms, or through one of two types of electronic file transfers: extensible mark-up language (XML) files or formatted flat files.
 - **Web form** data are entered manually on an Internet form in SDWARS/UCMR. Completing the form electronically is easier than dealing with paper lab slips of monitoring results, but it can still be time consuming to gather the data and individually enter the data into SDWARS/UCMR Web forms. If you have a lot of data to enter and an automated system for storing it (i.e., a Laboratory Information Management System) you should consider setting up an XML or flat file submission instead.
 - **XML files** are based upon a document type definition (DTD) that defines the rules the XML document must follow to be valid according to the *UCMR Reporting Implementation Guidance*, (see details below) Volume IV. In order to generate an XML document, the laboratory will need to use a validating XML parser (a computer program that breaks down text into recognized strings of characters for further analysis) to map the extracted data

with the DTD. Commercial XML parsers are available in a variety of packages that range in capabilities and prices. Because of the complexity of implementing XML, an organization should possess qualified information technology staff, sufficient electronic traffic, and a substantial environmental reporting obligation. Regardless of the nature of the obligation, it must be sufficient enough that the organization is willing to invest resources in collecting and managing environmental data.

- **Flat files** are created by preparing an extraction of data from the Laboratory Information Management System (LIMS). LIMSs may be programmed to extract and parse the flat file elements or may use some data transformation software to parse the data once it is extracted. When architecture for extracting the data has been determined, the data must be parsed into a flat file format. USEPA will maintain the most recent UCMR flat file format documentation on the UCMR reporting Web site in *UCMR Reporting Implementation Guidance*, (see details below) Volume V. The laboratory should validate the resultant flat file to confirm that it complies with the required format. Because flat files are similar to XML, but less complex, organizations considering submitting data by flat file should possess attributes similar to those related to XML submission.

If you are submitting a large volume of files regularly, creating the electronic submission file and maintaining the file format may be worth the time and effort. On the other hand, if your organization only submits a couple records a month, entering the data in the Web form may be more efficient.

SDWARS/UCMR Implementation Guides

The following Implementation Guides (IGs) are specific to various SDWARS/UCMR activities. These are available for electronic download off the internet at: <<http://epacdx.lmi.org/FAQ.asp>> Alternatively, copies of these can be requested from the CDX SDWARS/UCMR Help Desk at 1888-890-1995.

- ❖ *IG Volume I (EPA 816-R-01-022A)*
—Introduces the CDX and electronic reporting.
- ❖ *IG Volume II (EPA 816-R-01-022B)*
—Contains details about using web forms to submit, review and approve data for the UCMR.
- ❖ *IG Volume IV (EPA 816-R-01-022C)*
—Documents in detail the formatting requirements for Extensible Markup Language (XML) to be used with the EPA-provided document type definition (DTD) to create a well-formed, valid XML document.
- ❖ *IG Volume V (EPA 816-R-01-022D)*
—Documents in detail the formatting requirements for a delimited flat file.

2001 UCMR Monitoring Data - Deadlines for Reporting - U.S.

EPA is amending the UCMR regulatory language (as published in the January 11, 2001 and September 4, 2001, *Federal Register*) to specify when UCMR monitoring data will need to be reported. Draft Rule language, which is expected to be published soon, has been prepared specifying a deadline of 150 days from the publication of the Rule in the Federal Register. It will apply to all data received within 60 days of publication of the Rule in the Federal Register.

Recently Released Guidance Documents

Several guidance documents have recently been prepared and are now available from the UCMR web site <www.epa.gov/safewater/ucmr.html>. These include:

- ❖ Unregulated Contaminant Monitoring Regulation Reporting Guidance
(EPA 815-R-01-029, November 2001)
 - A guide which can be used to explain the UCMR reporting process.
- ❖ Reference Guide for the Unregulated Contaminant Monitoring Regulation
(EPA 815-R-01-023, October 2001)
 - If you choose to only read one guidance manual, choose this document. This guidance manual is meant to generally cover all major aspect of the UCMR and provides valuable reference information as a single integrated document.
- ❖ UCMR(1999) List 1 and List 2 Chemical Analytical Methods Quality Control Manual
(EPA-815-R-01-028, December 2001)
 - A necessity for any laboratory supporting UCMR monitoring capturing all the required QC criteria from the various approved methods. This manual replaces all of the previous Analytical Methods and Quality Control Manuals and their supplements and includes both the List 1 and List 2 chemical monitoring methods.
- ❖ Frequently asked Questions about the Unregulated Contaminant Monitoring Rule (1999)
Available on-line at: <www.epa.gov/safewater/standard/ucmr/ucmrfaq.html>
 - This guidance document provides answers for many of the questions that have been presented to the UCMR implementation team during regulatory development and the first year (2001) of UCMR implementation. Some of these issues may not always be specifically or clearly addressed in the Preamble, Rule or other implementation guidance materials.

Small System Sampling

UCMR monitoring at selected small systems (those serving less than 10,000) went very well during 2001. Much of this credit goes to the UCMR partnered states that are assisting us with implementation and the selected small systems for their responsiveness and continued cooperation. This first group of systems, which were sampled in 2001, contained 283 of the 800 selected small systems. If you were one of those systems which was sampled in 2001 and you are not an Index System, your sampling has been completed. If you have yet to be sampled, expect to hear from the UCMR small system coordination contractor, GLEC sometime over the next two years. Of the monitoring events scheduled to be completed through October, 99.1% of them have been reported back to the PWSs and states.

Screening Survey for List 2, Chemical Contaminants

- Small system sampling efforts for List 2 chemical contaminants were completed (other than a few remaining re-sampling issues) in 2001 and now the large systems selected for this monitoring need to be prepared in 2002. Three EPA methods are approved to complete this monitoring, namely 526, 528 and 532. Laboratories certified to conduct EPA Method 525.2 are approved to use EPA Methods 526 and 528. Laboratories certified in

either 549.1 or 549.2 are approved to use EPA Method 532. While any laboratory with these certifications can analyze List 2 chemical monitoring samples, EPA has contracted with Environmental Health Laboratories and Montgomery Watson Laboratories to complete these sample analyses for our small systems. EPA is not wishing to promote these commercial contract laboratories, but they have been identified since we have been asked from PWSs about which laboratories we know are supporting these analyses. PWSs should contact their normal commercial laboratory and inquire. Either of these identified labs, as well as many others with the prerequisite certifications will likely be able to provide a price quote for supporting these analysis.

List 2 Microbiological Monitoring - 2003

Aeromonas- The microbiological contaminant *Aeromonas* is part of the Screening Survey for List 2, and will begin being monitored by selected Public Water Systems in the early months of 2003. While the Screening Survey for List 2 chemical contaminants were monitored in 2001 at the selected small systems and will be monitored in 2002 at selected large systems, *Aeromonas* monitoring is scheduled to begin in 2003. The method that will soon be proposed for List 2 monitoring of *Aeromonas* is EPA Method 1605. Method 1605 is a membrane filtration method in which a modified medium will be used. This medium is Ampicillin-Dextrin Agar (ADA) which will be modified by adding Vancomycin. Vancomycin prevents the formation of gram positive bacteria and, along with three confirmation steps specified in Method 1605, will aid in identifying *Aeromonas* to the genus level. Approval to conduct *Aeromonas* monitoring using Method 1605 will be based on the following:

- State or primacy agency certification to perform an approved membrane filtration method for compliance monitoring of coliform indicator bacteria.
- Successful analysis of a set of performance testing samples provided by EPA.

Passing the Performance Test indicates that a laboratory is capable of correctly using the *Aeromonas* method.

Laboratories wishing to participate in the *Aeromonas* PT program and be approved must submit a “request to participate” letter to the U.S. EPA. The U.S. EPA has established 45 days following the publication of the rule as the latest date by which it will accept the “request to participate” letter. A second PT study will only be conducted if more than 90 days remain between the reporting of the results of the first study and the beginning of *Aeromonas* monitoring, January 2003. After completion, U.S. EPA will provide each successful laboratory with an approval letter identifying the laboratory name and approval date. This letter along with the evidence of certification for analysis of coliforms by an approved membrane filtration procedure provides evidence to a PWS that the lab is approved for *Aeromonas* under the UCMR.

Resources for additional information

U.S. EPA has several Web sites dedicated to UCMR and specific to the reporting process. These web sites are continuously updated with the latest information.

- ❖ OGWDW UCMR main page: <www.epa.gov/safewater/ucmr.html>.
- ❖ CDX home page: <www.epa.gov/cdx>
- ❖ CDX registration page: <<http://epacdx.lmi.org>>

- ❖ *UCMR Reporting Implementation Guidance:*
<www.epa.gov/safewater/standard/ucmr/reporting.html>

Looking for someone to talk directly?

- ❖ Safe Drinking Water Hotline: 1-800-426-7491
- ❖ CDX Help Desk for database issues related to SDWARS/UCMR: 1-888-890-1995
- ❖ U.S. EPA Contacts:
 - 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) 972-3562
 - Region 10: Gene Taylor, (206) 553-1389
 - Technical Support Center-**UCMR Implementation issues:** Dan Hautman, (513) 569-7274
 - Infrastructure Branch - **SDWARS/UCMR database issues:** Jeffrey Bryan, (202) 564-3942