

INDUSTRIAL WASTE DIVISION OF  
MONITORING AND RESEARCH  
QUARTERLY NEWSLETTER

Quarter 2, June, 2015

## Representative Sampling: The Basics

Users who discharge to the MWRD's treatment plants are required to provide representative sampling data that characterizes their wastewater. This takes the form of User Charge sampling for all Users and Continuous Compliance sampling for Significant Industrial Users. Independent of different sampling methods, all samples must be collected following the requirements outlined in the MWRD's Ordinances and in *Standard Methods for Water and Wastewater Examination (Standard Methods)*. These include proper preservation of samples, hold times, and decontamination.

### Preservation of Samples

All samples have a specific method of preservation. The most common form is temperature preservation. This requires users to 'ice' their samples, or to keep the samples at a temperature between 0°C and 6°C. The most common method is by filling in the space around the sampling bucket with ice. During final sample compositing and collection, the sample temperature must be recorded. Without properly cooling the sample, biological processes will continue and some other contaminants will volatilize. In both cases, the sample will no longer be representative and can be rejected by the MWRD.

### Hold Times

Each sample contaminant has a defined maximum time it can be 'held' before analysis. These hold times can be found in *Standard Methods*. Exceeding the hold time can result in unrepresentative samples. For example, pH has a maximum hold time of 15 minutes. Submitting such samples for analysis can result in a User being notified of noncompliance by the MWRD.

### Decontamination

Sampling equipment must always be properly decontaminated between uses. This includes using fresh sampling tubing, replacing or thoroughly cleaning the sampling container between uses, and thoroughly cleaning all other compositing equipment (stirring rod, thermometer, funnel, etc.) between uses. By following these procedures, Users will avoid cross contaminating their samples and produce samples that properly characterize their wastewater.

### Conclusion

During sampling audits, MWRD has observed Users failing to perform each of these procedures. The goal of sampling is to produce representative samples, and following these basic practices while also adhering to contaminant specific procedures outlined in MWRD Ordinances and *Standard Methods* will further provide Users with exceptional samples.

## Metropolitan Water Reclamation District of Greater Chicago

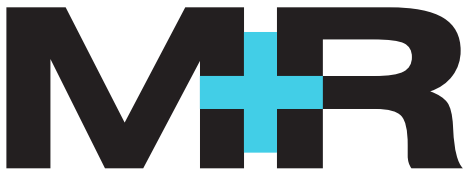
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MWRD's Sewage and Waste Control Ordinance and User Charge Ordinance are available on MWRD's website at [www.mwrdd.org](http://www.mwrdd.org).



Pollution Control Technician Acker collecting samples from an Industrial User



## Toxic Organic Management Plans

Toxic organics are contaminants that have the capacity to significantly harm the MWRD’s treatment facilities. This is recognized by the EPA, leading to the inclusion of more than 60 contaminants in Title 40 of the Code of Federal Regulations that MWRD is required to enforce as part of its Pretreatment Program.

All Significant Industrial Users (SIUs) who store or use on site any toxic organic compounds are required to submit a Toxic Organic Management Plan (TOMP). In addition, all SIUs defined as a point source under 40 CFR Parts 413, 433, 464, 467, 468, or 469 must submit and maintain an acceptable TOMP as part of their Discharge Authorization, whether they use or have toxic organics on site or not.

A TOMP must include, at a minimum:

- A list of all toxic organic compounds on site or in use,
- The method of disposal used instead of dumping, and
- Procedures for assuring that the compounds do not spill or leak into the sewerage system.

Some SIUs may then request a waiver from sampling for toxic organics by stating the following with their Continuing Compliance Reports (RD-115)

“Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the control authority.”

However, MWRD will continue to monitor for toxic organics in each SIU’s wastewater and, should it be determined that the TOMP is not being adequately followed, require sampling to resume.

## Simplified User Charge Reporting Options

All classified Users are required to report their wastewater quantities to MWRD annually. This takes the form of volume, biochemical oxygen demand (BOD), and suspended solids (SS) via the User Charge Annual Reporting Form (RD-925).

Over the years of the User Charge Program, MWRD has determined that some Users are not required to annually quantify their volume, BOD, and SS, since these values have been historically consistent and the facility does not experience substantive variation. Therefore, ‘Simplified’ reporting options were developed and adopted by the User Charge Ordinance. These are described in Section 7, parts F, G, I, and L.

These options are aimed at simplifying the reporting requirements on Users such as commercial office buildings with a large ad valorem tax credit, or small houses of worship, neither of which contribute much in the way of wastewater requiring treatment but MWRD is required by the EPA to recover its costs from.

If you believe your facility may be able to apply for a Simplified reporting option, or you would like more information, please contact your account specialist directly or call us at (312) 751-3000.

## IWD Submittal Deadlines

CONTINUED COMPLIANCE REPORTS (RD-115)				
40 CFR	Industrial Category	First	Second	
403	Non-Categorical	6/1	12/1	
410	Textile Mills	3/2	9/2	
413	Electroplating	4/27	10/27	
414	Organic Chemicals, Plastics, Synthetic Fibers	5/5	11/5	
415	Inorganic Chemicals Manufacturing	2/12	8/12	
417	Soap and Detergent Manufacturing	6/10	12/10	
419	Petroleum Refining	6/1	12/1	
420	Iron and Steel Manufacturing	1/10	7/10	
421	Nonferrous Metals Manufacturing	3/9	9/9	
423	Steam Electric Power Generating	1/1	7/1	
425	Leather Tanning and Finishing	5/25	11/25	
430	Pulp, Paper, and Paperboard	1/1	7/1	
433	Metal Finishing	2/15	8/15	
437	Centralized Waste Treatment	6/22	12/22	
439	Pharmaceutical Manufacturing	4/27	10/27	
442	Transportation Equipment Cleaning	2/14	8/14	
455	Pesticide Chemicals	4/4	10/4	
463	Plastic Molding and Foaming	1/30	7/30	
464	Metal Molding and Casting	4/30	10/30	
465	Coil Coating	6/1	12/1	
466	Porcelain Enameling	5/25	11/25	
467	Aluminum Forming	4/24	10/24	
468	Copper Forming	2/15	8/15	
469	Electrical and Electronic Components	1/14	7/14	
471	Nonferrous Metals Forming	2/23	8/23	

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