

P^o. The Pipeline

Drinking Water Laboratory
Policy & Procedures Update

A publication of the Ohio EPA/DES/DDAGW — Spring-Summer 2000

Notify the Ohio EPA of Personnel Changes

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Every certified laboratory must inform the Ohio EPA, Laboratory Certification section when an approved analyst departs. This includes a person actually leaving the employment of the lab and persons who transfer to another section/division and will no longer be working in the laboratory. You must also return any certificates of approval for that person. Please send all approved personnel changes to: Charles Vasulka, Ohio EPA, Laboratory Certification Section, 1571 Perry Street, Columbus, Ohio 43201.

Applications/QA Plans

You are reminded that for certain laboratories, QA plans must be included with Applications for Certification. QA Plans are required for laboratories testing for; Nitrates, Nitrites, Sulfates, Cyanide, Primary (trace) Metals, and all Organic analyses. All QA Plans and applications for certification including: Microbiological, all Chemical and Interim Authorization for Operational Analysis must be sent to; James Evans, Ohio EPA, Laboratory Certification Section, 1571 Perry Street, Columbus, Ohio 43201. Applications not accompanied by QA plans when required, may not be accepted by the Ohio EPA, which can result in a lapse of certification. Another reminder; Applications must be received by the Ohio EPA at least 30 days prior to the expiration of your current certificates of approval.

Stage 1 DDB Rule

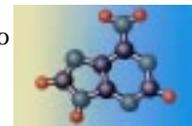
On December 16, 1998 the USEPA promulgated the Stage 1 Disinfectants and Disinfection Byproducts Rule (DBPR). This rule is an update to the 1979 Total Trihalomethane Rule. The DBPR lowers the Maximum contaminant limit (MCL) for Total Trihalomethanes (TTHMs) and creates new MCLs for Five Haloacetic Acids (HAA5), Bromate and Chlorite.

This rule will also set Maximum Residual Disinfectant Limits (MRDLs) for chlorine, chloramines and chlorine dioxide. These parameters shall be measured by a party approved by the State. The approval process will be something other than laboratory certification. The Ohio EPA is working on a mechanism for approving analysts to measure disinfectant residuals.

Other analytical requirements in the Stage 1 DBPR are for Alkalinity, Bromide, Organic Carbon and UV Absorption at 254 nm. In order to report these results for drinking water compliance, the analysis must be performed by a certified lab.

The Stage 1 DBPR will increase the number of public water systems that are regulated for disinfection byproducts. Currently only the large community PWSs are required to monitor for TTHMs. There are 143 PWSs that are regulated for TTHMs. By January 1, 2004 regulations for disinfection byproducts will apply to all community and non-transient non-community PWSs that provide water that has been treated with a chemical disinfectant. The exact number of systems subject to this rule has yet to be determined, but it will likely be greater than 1000.

If you have any questions concerning the Stage 1 DBPR, please contact Richard Ciotola at the Ohio EPA, DDAGW (614) 644-2752.



No Whiteout!

Errors can be made when doing paperwork in the laboratory. Errors can also be made when dating supplies. Errors are a normal part of life. However, if errors are made on any official document (including QC records, monthly operating reports, or bench sheets) or reagent/chemical bottles, never use whiteout. Never completely obliterate the error with a marker, pen or pencil. Instead, put parentheses around the erroneous date/information, line it out and initial it. Put the corrected date/information on the next line below or beside it.



What NOT to Send the Ohio EPA

Some commercial laboratories have been sending the Ohio EPA copies of all microbiological data slips, including all public and private water supplies. While all tests must be conducted in a certified laboratory according to Ohio EPA required procedures, not all results are to be reported to the Ohio EPA. Private water system analyses results ARE NOT to be sent to the Ohio EPA. Only test results for public drinking water supplies should be sent to the Ohio EPA.

Analog Meters

As noted in several past newsletters, analog (needle) meters are no longer acceptable for use in a certified laboratory. This includes analog turbidimeters such as the Hach 2100A, analog chlorine testers such as the Hach DR-100, any chlorine kit that uses a color wheel or color comparator, analog pH meters, analog Fluoride meters and any other analog meter. If the survey staff sees analog meters during an on-site inspection, it will be noted as a deviation and you will have until your next regularly scheduled survey to obtain a replacement digital meter.

Reminder: Required Signs

All certified drinking water laboratories are required to have a sign with emergency contacts on the front door or gate. The sign must list the contact person's name followed by the main phone number and alternate phone number during normal business hours (8:00 am to 5:00 pm).

TOC Testing Information

Beginning July 1, 2000 the Laboratory Certification Section will begin accepting applications for certification for TOC (Total Organic Carbon) analysis. Reporting of TOC's will be required starting sometime during 2000 as well as for Stage 1 DBPR. Methods approved for this test are Standard Methods 5310 B, Standard Methods 5310 C, and Standard Methods 5310 D. Application for TOC analysis can be made by submittal of an application for wet chemistry on which is listed "TOC" in the "Other" category in the test section. There will not be an additional fee assessed as long as the laboratory is currently certified for wet chemistry testing.

Reporting of Drinking Water VOC Results

Occasionally, the Ohio EPA receives Volatile Organic Chemical (VOC) sample submission reports that are missing one or more results. In all cases these were samples that were not analyzed by the reporting lab. The VOCs that are reported on the EPA 5019 form may have more than one name. Different versions of the 5019 have used different names. Also, the analytical lab may be using another name than the reporting lab. When reporting subcontracted VOC results on the 5019, please be sure that all compounds are reported. Below is a table that contains different names for the same compound.

Contaminant ID	Name 1	Name 2
2968	o-Dichlorobenzene	1,2-Dichlorbenzene
2969	p-Dichlorobenzene	1,4-Dichlorobenzene
2977	1,1-Dichloroethylene	1,1-Dichloroethene
2380	cis-1,2-Dichloroethylene	cis-1,2-Dichloroethene
2979	trans-1,2-Dichloroethylene	trans-1,2-Dichloroethene
2964	Methylene Chloride	Dichlormethane
2989	Monochlorobenzene	Chlorbenzene
2987	Tetrachlorethylene	Tetrachloroethene
2984	Trichloroethylene	Trichloroethene
2965	o-Chlorotoluene	2-Chlorotoluene
2966	p-Chlorotoluene	4-Chlorotoluene
2967	m-Dichlorobenzene	1,3-Dichlorbenzene
2212	Dichlorodifluoromethane	Difluorodichloromethane
2218	Fluorotrichlormethane	Trichlorofluoromethane
2030	p-Isopropyltoluene	4-Isopropyltoluene



Monitoring for Additional VOCs

Revisions to the Unregulated Contaminant Monitoring (URCM) Regulation for Public Water Systems (PWSs) were promulgated by the US EPA in September of 1999. Starting January 2001 some PWSs will be required to monitor for two additional VOCs. Information on these two compounds is in the following table. These chemicals, as well as Acetone, m-Xylene, o-Xylene and p-Xylene are already on the latest version of the 5019 VOC form. Acetone was not included in the latest update to the URCM rule. You may choose to report Acetone anyway, but there is no requirement to do so. The monitoring requirement for methyl-t-butyl ether and Nitrobenzene will not begin until 2001. Reporting these two compounds before January 1, 2001 is also voluntary. Please do not report the results for the three individual xylenes. The regulated parameter for PWSs is for Total Xylenes (contaminant ID 2955). If you have any questions concerning the reporting of VOC results, you may contact Richard Ciotola of the Ohio EPA DDAGW at (614) 644-2752.

Contaminant	CAS Registry Number	Analytical Methods	Minimum Reporting Level
Methyl-t-butyl ether	1634-04-4	EPA 524.2 D5790-95 SM6210D SM6200B	5 ug/L
Nitrobenzene	98-95-3	EPA 524.2 D5790-95 SM6210D SM6200B	10 ug/L

Tips for Successful Reporting (Article submitted by The Division of Drinking and Ground Waters)

Beginning July 1, 2000, Sample Submission Reports (SSRs) may not be accepted unless all of the required information is complete. The following tips can be used for submitting acceptable reports.

Public Water System and Sample Information: The PWSID number, STU number, date/time sample collected, sample monitoring point, sample collected by and sample purpose are required. Microbiological reports should also include collector's phone number, tap address and sample tap ID. *This information should be provided to the laboratory by the public water system prior to analysis.*

If you do not know the Source Treatment Unit (STU) number, call the Public Water System or Ohio EPA DDAGW water quality staff at (614) 644-2752. When submitting results, it is important to include the STU number for verification of system information.

Sampling monitoring point should be completed with the appropriate collection site code such as '001' for EP001, or '009' for RS009, as assigned by Ohio EPA (do not use an 'X' or a check mark).

If laboratory personnel collect the chemical samples for the public water system, the entry point (e.g. EP001) corresponds to the first available tap after all treatment, including pressure tanks. Subsequent chemical sampling should be taken from the same tap. If a water system does not have any treatment (many transients do not), the entry point should be marked (e.g. EP001) and the sample purpose should be marked as compliance for chemical samples (do not mark raw).

Make sure that "new well" is marked for new well results, and that the name of the public water system, pws number, and STU number are listed. Do not submit results with the name, phone number, and address of the well driller on the lines that are for the water system information.

There are no such sampling monitoring points as DS001, DS002, etc. 'DS' stands for distribution sample, and any samples that are meant to be labeled as distribution, such as coliform or lead and copper, are collected from DS000 (DBP's are marked as RD or MR). The general distribution code is DS000.

Make sure that the sample location is described in the Sample Location Description/Lab Remarks box, especially if the sample was taken from a DS000 location (e.g. DS000 may correspond to the kitchen sink; make sure that 'kitchen sink' is written in the box).

Only choose 'resample' under sample purpose if the sample can be directly related under 'Repeat for Sample Number' to another sample number previously submitted to Ohio EPA.

It is acceptable for the laboratory to correct the following information in order to properly report: PWSID number, STU number and Sample Monitoring Point (if provided by the public water system for identification).

Laboratory Information: The reporting lab ID number, analytical lab certification number, reporting lab sample number, date sample received, date QC completed, and QC completed by are required information.

Never duplicate sample numbers. The exact same sample number cannot appear from the same lab on more than one report. If you use the same sample number for all samples received together from a client, a unique prefix should be added to each report. For example, a prefix of 900 for VOC's and a prefix of 800 for SOC's. You cannot re-use numbers from year to year unless they are also somehow differentiated by year with a numerical marker.

Sample numbers are limited to 10 digits, cannot include letters and must begin with a number other than zero.

Microbiological samples taken for special purposes must have sample numbers other than zero.

Analyses should not be run on samples past their holding times, as determined from date of collection (e.g. unpreserved nitrate). If a sample is received late, contact the water system and have them collect another sample.

Make sure that the sample date, the date received, the analysis date, and the QC completed date are in chronological order.

Analytical Information: The preservation location, preservation type, and the sign, result, units, date, method and analyst number for each parameter analyzed are required information.

The preservation location and type should be completed. If a preservative was not used, mark 'none'.

Always fill in the "sign" column with either a plus sign (+) for a detect or a less than sign (<) for a non-detect. Do not put a check or an 'X' in the sign column. Do not write the sign in the results column.

Check that the units and analytical results match. This has been a problem for cyanide in particular (i.e. 5 ug/L result reported as 0.005 ug/L).

If two analysts performed an analysis, both names can be written in the remarks box, but only one analysts number, the primary analyst, should be coded next to the contaminant name and method used.

For new well analysis, continue to report results for "Residue, total filtered"(contaminant ID 1057). Do not report as "Dissolved Solids, total" (contaminant ID 1930).

Distribution parameters that are listed on the EPA monthly operation report form 5002, such as iron, manganese, and phosphorus (total), should not be separately reported on the EPA inorganic form 5020. The results should be sent directly to the public water system so that they can submit the results on their EPA form 5002.

When a lab accident occurs, contact the PWS and arrange to have another sample collected. If the sample is going to occur after the end of a monitoring period, then send the Ohio EPA a brief explanation of what happened to the original sample (include the original sample date).

When filling out a paper form for submittal to Ohio EPA, use the DRINK method ID codes for the analytical methods, not the actual method name.

Any additional information should be included in the remarks section.

Electronic Submission of Results

If you are in doubt whether samples have been electronically transferred, do not automatically resubmit them. Call Kevin Mills, DDAGW first to check if they have been received. Resubmittals cause problems because sample reports are duplicated and must be deleted from DRINK.

If you realize that an electronically submitted form has an error, call Kevin Mills or someone in the Drinking Water Quality Unit, DDAGW to make the changes for you. Resubmittals cause confusion and will considerably delay the processing of your (or your client's) data.

Paper Submission of Results

Do not print forms from DRINKWARE and turn them in to Ohio EPA. DRINKWARE is designed for electronic submissions, and printouts from DRINKWARE do not contain the contaminant codes necessary for data entry. Instead, use the DRINK forms for paper submission.

Do not use pencil or whiteout, and initial any changes that you do make on a sample submission report.

Reporting Deadlines

As a reminder, all chemical SSRs are due in our office by the tenth day following the month in which the chemical analyses are completed (OAC 3745-89-08(A)). "Completed" includes the time needed to perform quality control. It is very important that SSRs are in our office by the deadline in order to prevent violation letters from being sent to systems that actually completed the monitoring during the correct time period.

For Microbiological SSRs, repeats and positives must be faxed to the districts by the end of the next business day after analyses are completed. Chemical MCLs must be faxed to Central Office by the end of the next business day after analyses are completed.

In addition, water systems now must have all of their required chemical analyses to the Ohio EPA by the tenth day following the end of the monitoring period. If a system waits until the very end of the quarter to sample, the laboratory may not be able to submit the results by this deadline. We have reminded systems about this requirement and the importance of sampling early in a monitoring period in order to avoid getting a violation. Where it is possible, laboratories should minimize the number of systems sampling during the end of a monitoring period.

Ohio EPA appreciates your cooperation through this transition period. If you have any questions, please call the Drinking Water Quality Unit, DDAGW, Central Office at (614) 644-2752.

Revised Unregulated Contaminant Monitoring

Beginning in 2001, all public water systems serving greater than 10,000 consumers will be required to monitor for a revised list of unregulated contaminants. A small group of public water systems that serve 10,000 or fewer consumers will be randomly selected to participate in the unregulated contaminant monitoring. This monitoring is being conducted to provide the United States Environmental Protection Agency (USEPA) with analytical data needed for establishing future regulations and health standards. Information about the list of unregulated contaminants and the analytical methods can be obtained by accessing the USEPA website www.epa.gov/ogwdw. The public water systems included in this program will be notified of the specific monitoring requirements by the end of this year.

Revised Micro Numbering Information

With the advent of DRINK, several former reporting rules have been changed. One of these is the way in which microbiological samples are numbered. Previously, micro numbers were reset at the beginning of the year. Now, numbers must continue until the DRINK limit of 10 digits (XXX,XXX,XXX) is reached. For example, do not start out with number 1 on January 1 if the last number on December 31 was 555, instead start out with 556 on January 1. If any other DRINK requirements conflict with past rules, you should begin to follow DRINK rules only.



*Bob Taft, Governor of Ohio
Christopher Jones, Director of Ohio EPA*



The Pipeline Newsletter is published as information becomes available. It is produced by The Ohio EPA, Division of Environmental Services, Laboratory Certification and Division of Drinking & Ground Waters, Enforcement & Water Quality Section. It is distributed to all certified drinking water laboratories.