

The Pipeline

Drinking Water Laboratory
Policy & Procedures Update

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Impact of Ohio Administrative Code Revisions on Drinking Water Laboratories

There are several rule revisions to the Ohio Administrative Code (OAC) that became effective June 28, 2003 that impact laboratories certified to analyze drinking water samples. The reporting limits for arsenic and di(2-ethylhexyl)phthalate have changed, and reporting limits have been established for the haloacetic acids. The arsenic reporting limit is now 3 ug/L, and the di(2-ethylhexyl)phthalate reporting limit is 2 ug/L (OAC Rule

3745-89-03). In addition to these changes, OAC Rule 3745-81-27, the analytical methods rule, has been

revised to reflect recent additions and deletions of analytical methods. OAC Rule 3745-89-08, the reporting of analytical results by laboratories, now requires laboratories to report certain parameters to Ohio EPA **only** when requested to do so by the Division of Drinking and Ground Waters (DDAGW). These parameters include lead and copper results, as well as other operational parameters, that

are already submitted as part of public water systems monthly operating reports. This requirement will eliminate the submittal of duplicate information. This is a brief summary of the major changes. Please review the amended rules on DDAGW's web site at <http://www.epa.state.oh.us/ddagw/oac.html#effective>

Arsenic Reporting

In preparation of the lowering of the MCL for arsenic to 10 µg/l, the reporting limit for arsenic has been lowered in Ohio to 3.0 µg/l. Also in preparation of the lowering of the MCL, ICP Methods EPA 200.7 and SM 3120 are no longer acceptable for the reporting of arsenic. Both issues concerning arsenic are effective immediately.



Laboratory Certification Fees

As of July 1, 2003, the following three year laboratory certification fees became effective:



Microbiological:

MMO-MUG	\$2,000.00
Membrane Filter	\$2,100.00
MMO-MUG and Membrane Filter	\$2,550.00

Organic Chemical:

THMs, HAAs and/or VOCs ..	\$5,400.00
Pesticides and other organic chemicals ..	\$5,400.00

Trace Metals	\$5,400.00
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Wet Chemistry:

Wet Chemistry (Standard Chemistry) ..	\$2,800.00
Basic Chemistry (Limited Chemistry) ..	\$1,550.00

[Any two analyses included in wet chemistry or asbestos, or radiological, or lead and copper only]

In addition to the three year survey fee, there is a fee of \$1,800.00 for each additional survey to add analyst(s) or test(s).

If you have any questions regarding the laboratory certification fees, please contact James Evans at (614) 644-4222.

Alkalinity pH Verification

Several laboratories have requested an example sheet for the pH verification that is now performed monthly by each analyst. Attached is a record form which has the minimum required information on it. You may copy and use it or use your own form in your records.

Interim Authorization

This is to clarify what type of testing can be performed by a person who has been granted interim authorization.



A person is “operationally approved” for those tests for which he/she applied for interim authorization. He/she can perform the operational testing only but **not** the calibrations/standardizations that are performed by a “fully approved” analyst.

When a person with interim authorization is scheduled for an on-site survey, he/she has the option to become “fully approved” for those test(s) provided that the survey office is notified in advance.

If you have any questions regarding interim authorization, please contact James Evans at (614) 644-4222.

Telephone Number Change



Please note that Charles Vasulka’s telephone number has changed. His new number is (614) 644-4266.

KI Test Strips

Laboratories that are using dechlorinating agents as part of the sampling procedure for organic contaminants or Cyanide must use DPD reagent to verify the absence of chlorine in the sample. Potassium Iodide test strips are not sensitive enough to detect chlorine concentrations that are typically used for drinking water disinfection and cannot be used for this purpose.

Cyanide and most organic samples must be tested for chlorine upon receipt at the laboratory prior to analysis (except for THMs and VOCs which are tested after analysis). The test results need to be recorded with the sample information, if chlorine is present in the sample (>0.05 mg/L) test results are invalid and resampling is necessary.

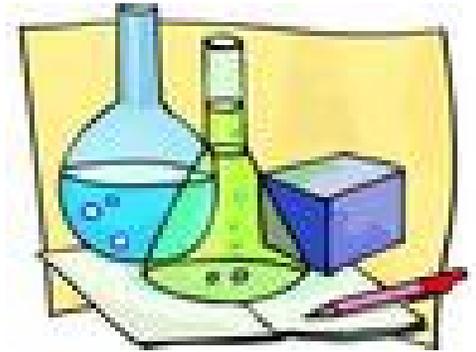
Keep in mind, when testing a preserved cyanide sample for chlorine using DPD, you must take a small portion of the sample (10 to 15 mL), adjust the pH to between 6 and 8 with dilute hydrochloric acid, then add the DPD reagent. The DPD will not react with chlorine at pH 12.



Segregation of Sample Matrices

The analysis of samples that are different in matrices can lead to cross contamination. This cross contamination can (and has) lead to the misreporting of analyte concentration. In the majority of situations a positive bias is reported, although negative bias is possible when samples of different matrices or significantly

different concentrations are analyzed back to back. Our office requests that whenever possible, sample matrices be analyzed separately, not only between sediment/solids samples and water samples, but also between drinking water and wastewater samples. When segregation of sample sets is not possible, reagent blanks should be analyzed between samples. It is our recommendation that drinking water samples are analyzed at the beginning of analytical runs since they are the “cleanest” matrix most laboratories analyze.





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



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