OhioEPA

The Pipeline

Drinking Water Laboratory Policy & Procedures Update

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New Laboratory Certification Rules

All certified drinking water laboratories should now be aware that the Division of Drinking and Ground Waters adopted new laboratory certification rules effective June 18, 2004. Ohio Administrative Code 3745-89-08 now requires that laboratories report all maximum contaminant level exceedances, as well as all positive and all repeat bacti results, to the public water systems either by fax or by electronic mail by no later than the end of the next business day after the result was obtained (this is in addition to reporting these results to the Ohio EPA within the same time frame). Overnight mail delivery may be used in lieu of fax or electronic mail for notifying the public water systems. Laboratories that subcontract remain responsible for meeting these reporting deadlines. Therefore, it is important that subcontracting laboratories have established procedures with their laboratories to ensure that these deadlines are met. All of the laboratory certification rules are found in OAC 3745-89 and can be viewed at http://www.epa.state.oh.us/ddagw/oac.html#effective

Reminder About Nitrate and Nitrite Analysis and Reporting

Nitrate-Nitrite, as currently depicted in DRINKware and on reporting forms, means the combined value of nitrate and nitrite (NOT nitrate minus nitrite). The combined nitrate-nitrite value should be reported when cadmium reduction methods are used or when the sample is preserved, because nitrate itself cannot be directly speciated.

With cadmium reduction methods, nitrate-nitrite is the value resulting from analysis with the cadmium column. Nitrite is the value resulting from analysis (on an unpreserved sample) without the cadmium column. Nitrate can then be calculated by subtracting the nitrite value from the combined nitrate-nitrite value.

Also, analysis of a sample preserved using sulfuric acid (regardless of the method used) actually yields the combined nitrate-nitrite value, because nitrate and nitrite cannot be determined as individual species.

Instructions for Reporting Nitrate and Nitrite Analytical Results are available on our website at http://www.epa.state.oh.us/ddagw/pubs

In this issue:

UniVer, UniVer, UniVer!

There have been some changes in the availability of reagents that are commonly used for the hardness tests.

According to a Hach Company product specialist, UniVer 1 and UniVer 2 will no longer be sold. UniVer 3 is the replacement for the UniVer 2 and is only sold in the 454 g bottle. For laboratories formerly using UniVer 1, a separate bottle of potassium cyanide must be purchased and used with the UniVer 3.

We do not recommend using the potassium cyanide reagent unless it is absolutely necessary. Most finished waters do not contain high enough concentrations of the metals that interfere with the test, and do not need the added cyanide reagent.

Chemistry Reagent Expiration Dates

Many questions have been asked concerning manufacturers' expiration dates for their chemistry reagents and the inconsistencies in determining them. For example, some vendors allow as many as four years from the manufactured date of the reagent, while others cut the life to as little as three months from the shipping date, for the same solution! Some manufacturers have actually had different expiration dates for solutions with the same lot number.

Several vendors were called and asked what the criteria was in determining expiration dates for their reagents. They did not give any type of scientific explanation for determining the deadlines. All agreed that the date was more of a "guarantee" of quality for their reagents.

The laboratory certification program for drinking water analysis has specific guidelines for reagent longevity. Specifically, solutions must be replaced prior to one year from the "opened date" or two years from the "received date", whichever comes first; pH buffers six months from the "opened date"or one year from the "received date", whichever comes first; and for dry reagents, concentrated acids and solvents a maximum of six years from the "received date". Exceptions do apply if specified in the approved method.

In cases where the manufacturers' expirations exceed the drinking water certification limitations, the certification guidelines must be employed.

The problem arises in cases where the manufacturers' expiration dates are prior to the certification guidelines. Normally, we would say to replace the reagent, but with the manufacturers' inconsistencies in determining their expiration or guaranteed dates, we recommend following our guidelines, provided the quality control criteria is met for the test procedures.

We recommend shopping for vendors that provide the "manufactured" or "born on" dates and corresponding expiration dates that follow the chemical certification guidelines.

Laboratory Certification Fees

As you are aware, new laboratory certification fees went into effect on July 1, 2003. In addition to the revisions of the three year survey fees, a new survey fee became effective for laboratories that add analyst(s) or test(s).

For each application that is submitted to add analyst(s) or test(s), there is a fee of $1,800.00 assessed to cover the cost of the on-site survey. A fee payment notice will be sent to the laboratory once this office determines that the application is complete.

For a complete listing of the laboratory certification fees, please refer to the summer 2003 edition of "The Pipeline".

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

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