Division of Public Health Services
Public Health Preparedness Services
Bureau of State Laboratory Services
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JANICE K. BREWER, GOVERNOR
WILL HUMBLE, DIRECTOR

FAX TRANSMITTAL SHEET

DATE: **January 13, 2014**

TO: **Laboratory Director and QA Manager**

FROM: **Steven D. Baker, Office Chief**
Laboratory Licensure and Certification

Subject: **Information Update #118**

Pages: **4 (including cover)**

NOTE: **If any of the pages are missing, please call (480) 284-6869 or (602) 364-0720.**

THIS MESSAGE AVAILABLE IN ALTERNATIVE FORMAT UPON REQUEST, BY CONTACTING:

***Prabha Acharya at* (480) 284-6869**

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Health and Wellness for all Arizonans

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Information Update

January 13, 2014

Update #118

1. **Recently our Office received a memo from the Office of Resource Conservation and Recovery, USEPA that if it can be demonstrated that molecular interferences are under control (by using either collision and/reaction cell and demonstrated using appropriate quality control samples), the use of hydrochloric acid in the digestion acid mix for samples to be analyzed by ICP-MS is allowed, and is preferred if silver and/or antimony are analytes of interest. The use of hydrochloric acid is also allowed for other target analytes, assuming that molecular interferences are well controlled.**

   SW-846 Methods 3050 A and B describe two different digestion procedures. The choice between them depends on whether the digest is to be analyzed by ICP-AES or ICP-MS. The main difference between these two procedures is that hydrochloric acid is included in the ICP-AES procedure, but not in the ICP-MS procedure. The historical reason for this difference is that high chloride matrices can result in the formation of molecular interferences in ICP-MS, especially for arsenic and vanadium. ICP-MS technology has improved since the last revision of Method 3050B in Update IV (2004).

   Based on the same reasoning, sample digests prepared using methods 3005A and 3010A may be analyzed by ICP-MS, assuming that procedures to control molecular interferences are demonstrated and documented.

   The full memo can be accessed at the following link:

   http://www.epa.gov/osw/hazard/testmethods/pdfs/digestate_hci.pdf

2. **Director Approvals:**

   a. **Approval of the use of Hydrochloric Acid (HCl) in digests prepared by SW-846 Methods 3005A, 3010A and 3050B for ICP-MS Solid Waste Compliance testing.**

   b. **Method OIA-1677, DW Available Cyanide by Flow Injection, Ligand Exchange & followed by gas diffusion amperometry.**

3. Subcommittee on 1664A and 1664B method requirements:

A lot of questions have been raised regarding the requirements in the above methods. The methods are confusing as to the procedural requirements; ADHS has communicated with EPA staff on this matter, still the uncertainty lingers in the lab community. So a subcommittee comprising of ADHS and lab community has been formed to discuss the method requirements and assist in revising the ADHS audit check sheets. If you are interested in participating personally or by teleconference or have questions or comments please contact Barbara Escobar by an email or by phone:

Telephone: 520-245-6332
Email: Barbara.Escobar@pima.gov

The first meeting is scheduled for:

1/30/14, Thursday from 10:00 AM-12:00 Noon
ADHS Igloo Conference Room
250 N. 17th Avenue
Phoenix, AZ 85007-3231

Or you may call in to join the teleconference:

1-877- 820-7831 and the code is 252196

4. Clarification on Standard Methods 9222D, Determination of Fecal Coliforms by Membrane Filter Procedure:

The following question was posed to Andrew Lincoff of US EPA Region 9:

If the laboratories are performing this method using a manifold system to filter wastewater or drinking water samples, if each sample is filtered using a sterile filter unit that has been wrapped or by exposing the surfaces to ultraviolet light for initial use and reuse within the series, can the laboratories at the end of the series insert a sterile rinse water sample (blank) using a new sterile filter unit?

EPA response:

If a lab is reusing funnels they must use one of the sample funnels in use to run their end-of-run blank and not a new sterile funnel. That would not be testing their process and would be a deficiency. If every filter in use is subject to UV before reuse, then I think it is acceptable to do the same for the blank, using a funnel used for samples, and not a new sterile funnel. If they are using disposable funnels and use a new funnel for every sample, then they could use a new funnel for their end-of-run blank.

5. Videos on Alternatives to Mercury-Containing Thermometers in Industrial and Laboratory Settings can be accessed at the following URL:

www.epa.gov/hg/nistvideo/index.html

6. **An ADHS in-house produced video on "Pipette Calibration and Cleaning" can be accessed at the following URL under Training Information: http://www.azdhs.gov/lab/license/environmental-lab/drinkingwater-facility.htm**

7. **Please contact Prabha Acharya @ (480) 284-6869/ (602) 364-0720 or acharyp@azdhs.gov for any technical or method related questions. The earlier Information Updates can be accessed @ http://www.azdhs.gov/lab/license/resources/updates.htm**