

Highlights

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- Certified Reference Standards
- Regulatory Update



ITLA

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Independent Testing
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2004-2005 ITLA Officers

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Message from the President

By Jim Occhialini

Greetings fellow ITLA members, Fall is here and soon we will be in the middle of the holiday season. It can be a hectic season for us as we balance clients who are all trying to finish their field work before the really bad weather comes. Add to that the holiday breaks and staff vacations, and if we are not careful, chaos can reigns.. Here's to maximizing profits, maintaining

your sanity and most of all, enjoying the holidays.

I have something really important to talk to you about. I need your help! There will be two vacancies coming up on our Executive Board, the positions of Secretary and Treasurer. I cannot say enough about the two current office holders, Sue Sylvester and Kevin Braga. They have done a truly fantastic job of keeping our ITLA up and running smoothly. But alas, their terms are due to expire, and when you consider that their terms were extended due to a recent bylaw change, we all owe them a great debt of gratitude. So...back to the helping part. I am forming a Nominating Committee to develop a slate of candidates to fill these positions. Can you help me? More importantly, please consider becoming a candidate. I can tell you that my work on the Executive Board has been enjoyable & professionally rewarding. Our industry has a lot of talented people and interacting with them and discussing the issues that we all have to face,

has been an invaluable learning experience for me. So...become a candidate, or at least be on the Nominating Committee. I'm taking names and I want to get a head start before the meeting, so please email me directly at jocchialini@alphalab.com with your ideas.

We have a very informative meeting coming up on December 1. Our featured speaker is Mr. Paul Locke from the MADEP. Paul will be speaking about the implementation of the finalized Massachusetts Data Quality Enhancement Policy & the Compendium of Analytical Methods (CAM), something of interest to us all. The state of Connecticut has also been working on a similar program to improve the quality of data generated in support of that state's environmental regulations. Mr. Glen Breland, from Alpha Analytical Labs, is a member of the Connecticut Workgroup and he will provide us with an update on their proceedings. The Chairman of the Regulatory Committee and

Quarterly Meeting

Wednesday, December 1, 2004, Radisson Hotel, Milford, MA

Feature Presentation: *CAM Implementation by Paul Locke, MADEP* See page 4 for agenda

former ITLA President, Bob Bentley from Analytical Balance, will also provide us with an update on perchlorate and microbiology, as there has been a lot going on in those two areas since we last met.

Also at our next meeting Dr. Bruce Richter from Dionex Corporation will be speaking. Dr. Richter will be speaking about using Accelerated Solvent Exchange (ASE) techniques for sample preparation and will entertain questions concerning any of the great products they manufacture.

As always, if anyone has any issues they would like to have addressed or ways in which the ITLA can be more effective, please do not hesitate to contact me. Consider becoming a candidate! This is your organization and the issues facing our industry are as challenging as ever. Help us... and in so doing help yourself, your company and your industry. We have a great meeting coming up on December 1 and I look forward to seeing you all.

Regulatory Update

DEP considers restricting the methods you can use!

The Lab Certification Office is continuing to move ahead with plans to re-focus all of the coliform testing so that presence or absence as well as confirmation tests will be completed within 28 hours of beginning analysis. This will alter acceptable methods and techniques, and render currently used (and approved) verification techniques unacceptable. For more information on this, please contact me at bob@h2otest.net .

Perchlorate

The second round of drinking water perchlorate analyses (for groundwater) are done. Dave Terry of DWS says will make a recommendation to the Commissioner for a new MCL by Thanksgiving. He expects the Commissioner to forward his recommendation to the Governor by the first of the year. Surface water systems have one more round of analyses. Those recommendations will also be passed on to the Commissioner hopefully by the end of the first quarter. Perchlorate seems

to be cropping up in in surface waters in spots they were not expecting, and the sources of this - at present - seem to be a mystery. We will keep you informed as this issue moves ahead.

Membership Outreach

By Sue Sylvester, Secretary

In early September ITLA conducted an informal phone survey of selected members. ITLA is here to serve our membership and we wanted to find out how we are doing. Overall, it appears that the email communication of newsletters and other announcements is working well. Some folks mentioned the good problem of being just too busy to attend the meetings and appreciated the newsletters coming to keep them in touch. Thanks to those who took the time to chat with us and for those of you we missed, it is never too late to give us some feedback! If you have any input at all regarding the direction of ITLA, new priorities for us, training ideas, vendor and technical presentations for our meetings, or any other suggestions as to how ITLA can better serve you, please let us know.

Options for Second Sources for Certified Reference Standards

By Victoria Jacobs, AccuStandard

Why Is There a Need for a Second Source?

Good Science

- Analytical work relies on a calibration that is made with well-characterized standards with known purities.
- Whether a laboratory prepares their standards in-house, or buys them from an outside source, there is always the need to know that they are qualitatively and quantitatively prepared correctly.
- Regulatory requirements
 - ASTM
 - FDA
 - NVLAP
 - ISO
 - EPA

Decide what Level of Certainty is Required

- Some regulatory requirements have defined

requirements for inter-standard comparisons.

- Example: EPA protocols have defined recoveries for compliance.
 - Initial and continuing calibration verification and spiking requirements.
 - Reproducibility between analyses.
- Not all analyses may require the same level of confidence.
 - Some analyses are screening analyses that may require a qualitative standard only.
 - Screening a sample for presence/absence of 70 elements.
 - Scanning a solvent for extra peaks (may not even require a standard).

Some Considerations When Deciding Between Options

- What level of confidence is required?
- How independent are the standards?
- How expensive is this option?
- Am I adding value to my data?
- Is it going to make my analysis easier?
- How much documentation or traceability is required?

What are Some of the Available Options?

- Standard Prepared in-house vs. an Outside Source
- Standards Purchased from Two Different Vendors
- Two Different Batches From the Same Company
- Second Source Program Offered Between Two Vendors
- NIST SRMs or NIST Traceable Materials
- Third Party Certified Standards

Option 1 – Standard Prepared in-house vs. an Outside Source

- Pros
 - Control over the materials prepared on site
 - Sometimes it is easier to prepare your own
- Cons
 - The labor and the materials to prepare your own standards is expensive.
 - There may be some special equipment or expertise required to prepare some types of Standards.

- Lack of documentation for auditors.
- What if they don't match?

Option 2 – Standards Purchased from Two Different Vendors

- Pros
 - Generally less expensive than making the standard in-house.
 - You can count on the expertise of the manufacturers to provide a level of confidence.
 - “Truly” independently prepared.
- Cons
 - Finding standards that are similar in design from vendor to vendor can be a challenge.
 - Whenever there are conflicting results it can be onerous to determine which material (if either of them) is actually correct

Option 3 – Two Different Batches From the Same Company

- Pros
 - Guaranteed to match.
 - Only one purchase order required.
 - One of the least expensive options.
 - You can count on the expertise of the manufacturers to provide a level of confidence.
- Cons
 - Could have some bias in the accuracy of the raw materials, depending on how well they have been verified by outside sources.
 - May not be accepted by all reg. programs.

Option 4 – Second Source Program Offered Between Two Vendors

- Pros
 - Guaranteed to match.
 - Truly externally prepared from independent raw materials.
 - Independent QC analysis.
- Cons
 - Limited product line.
 - Premium price.
 - Primarily organic products.
 - No predefined acceptance criteria.
 - No third party review. (*Standards page 4*)

Standards From Page 3

Option 5 - NIST SRMs or NIST Traceable Materials

- Pros
 - NIST traceability provides a link that is virtually universally acceptable.
 - Materials purchased that are NIST traceable will match.
 - SRMs can be purchased for use in the lab to prepare NIST traceable standards in-house.
- Cons
 - For most Inorganic analytes NIST SRMs and traceable standards are available, however, the Organic analyte selection is limited.
 - Buying NIST SRMs for in-house use is very expensive.

Option 6 - Third Party Certified Standards

- Pros
 - Guaranteed to match within predefined limits.
 - AccuStandard and Cerilliant independently prepare & analytically verify the standards.
 - A third party review verifies both of the analyses.
 - Documentation of independent preparation and analysis provided.
 - Both products available on a single Purchase Order.
- Cons
 - Primarily Organic products
 - Slightly higher price

Conclusion

- Ensuring that accurate calibration materials are used for analyses is critical for meaningful results.
- Be aware of the differences between various second source options.
- An analyst needs to consider the different options available, and then chose the one that best fits the data quality objectives for the analysis.

Regulatory Update

Provided by Jerry Parr, Editor of Calibrate

EPA Withdraws Proposed Rule on the MDL

Procedure: EPA has withdrawn proposed revisions for the definition and procedure for EPA's method detection limit (MDL) as proposed on March 12, 2003. The proposed revisions were disfavored by the vast majority of commenters and the Agency has determined that these proposed revisions do not represent the most effective way to address the public's and EPA's concerns regarding approaches to, and use of, detection and quantitation values. The Agency believes that new approaches submitted in comments to the proposed rule might better address the issues and that these new approaches warrant further consideration and refinement. EPA plans to work with stakeholders to evaluate one or more approaches to detection and quantitation that will satisfy the needs of programs, regulations, and initiatives at the Federal level for use of detection and quantitation procedures, and to revise its existing procedures, as appropriate. (11/8/04; 69 FR 64707)

Training Course on Sampling for Defensible Environmental Decisions

This training integrates aspects of sampling including data quality objectives, quality control, and statistics. The goal of the training is to provide the environmental professional with the skills and knowledge to design a scientifically valid and legally defensible sampling plan at minimum cost. The course will be December 7-10 in Fort Collins, Colorado. <http://www.envirostat.org/training.htm>.

EPA Science Advisor Resigns

Dr. Paul Gilman, EPA's Assistant Administrator for the Office of Research and Development and the Agency's Science Advisor, announced that he is stepping down at the end of November to accept a private sector job.

February 4, 2004

ITLA Executive Board Meeting
 DoubleTree Suites, Waltham, MA
 1:00 p.m. - 4:00 p.m.

February 11, 2004

Deadline for Newsletter Submissions

March 10, 2004

ITLA Annual Meeting
 Crown Plaza, Worcester, MA
 8:30 a.m. - 3:00 p.m.

May 5, 2004

ITLA Executive Board Meeting
 DoubleTree Suites, Waltham, MA
 1:00 p.m. - 4:00 p.m.

May 12, 2004

Deadline for Newsletter Submissions

June 9, 2004

ITLA Quarterly Meeting
 Radisson Inn, Marlboro, MA
 8:30 a.m. - 12:00 p.m.

August 4, 2004

ITLA Executive Board Meeting
 DoubleTree Suites, Waltham, MA
 1:00 p.m. - 4:00 p.m.

August 11, 2004

Deadline for Newsletter Submissions

September 15, 2004

ITLA Quarterly Meeting
 DoubleTree Suites, Waltham, MA
 8:30 a.m. - 12:00 p.m.

November 3, 2004

ITLA Executive Board Meeting,
 Doubletree Guest Suites, Waltham, MA
 1:00-4:00 p.m.

November 10, 2004

Deadline for Newsletter submissions

December 1, 2004

ITLA Quarterly Meeting, Radisson Inn,
 Milford, MA
 8:30 a.m. - 12:00 p.m.

ITLA Quarterly Meeting

Wednesday, December 1, 2004
Radisson Inn,
Milford, MA

8:30 a.m. Registration

9:00 a.m. Committee Reports

Secretary
 Technical
 Newsletter
 Lab Advisory
 Regulatory
 Treasurer
 Elections
 By-laws
 Ethics
 Membership

9:30 a.m. Regulatory/Lab Advisory Committee Report

9:50 a.m. Connecticut Data Quality Workgroup Status Report

10:00 a.m. Break

10:15 a.m. Vendor Presentation

"Advances in Accelerated Solvent Exchange Technology" by
 Dr. Bruce E. Richter, Dionex Corp.

11:00 a.m. Featured Speaker

"CAM Implementation" by
 Mr. Paul Locke, MADEP