

# The Institute Review

www.nelac-institute.org

Third Quarter 2009



Editor-In-Chief  
Carl Craig, ERA

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## TNI Plans for 2010

By Jerry Parr, TNI

In 2009, TNI accomplished many goals that had been established in a 2007 strategic plan.

- ◆ The new TNI laboratory accreditation standards have been adopted by the NELAP Board to replace the 2003 NELAC Standard in 2011.
- ◆ The TNI National Environmental Field Activities Program (NEFAP) was created. TNI is rapidly building this new program.
- ◆ The Stationary Source Audit Sample Expert Committee (SSAS) developed three new consensus standards for source emission testing.
- ◆ TNI has implemented a Standards Interpretation Request process on the TNI website. Eighty-two requests have been processed so far this year.
- ◆ TNI created the position of Small Laboratory Advocate, which then resulted in the formation of the Small Laboratory Advocacy Group.
- ◆ A national database of accredited laboratories, the Laboratory Accreditation Management System (LAMS), was developed.
- ◆ All existing NELAP ABs were evaluated and reapproved as NELAP-recognized Accreditation Bodies (ABs).

For 2010, TNI is continuing major efforts to further the strategic goals set forth in 2007. The specific goals for 2010 for each TNI program, excluding those discussed elsewhere in this newsletter, are summarized below.

### Technical Assistance

The purpose of the Technical Assistance Program is to provide assistance to stakeholders, particularly those seeking accreditation and those who accredit. The Technical Assistance Committee (TAC) will be focusing on planning and scheduling regional workshops to help laboratories prepare for implementation of the new TNI standards (see NELAP article). In addition, a TAC subcommittee is developing a document to provide guidance on interpreting the language in Chapter 5 of the 2003 NELAC Standard relating to Limits of Detection and Quantitation (LOD and LOQ) and to provide examples of acceptable verification of LOD and LOQ for various analytical methods. TAC also plans to revise the Quality Manual Template to be consistent with the new TNI standard. As always, TAC will sponsor and develop the mentoring session and assessment forums at the semiannual Forum on Laboratory Accreditation.

### Advocacy

The Advocacy Committee is responsible for promoting a national program for environmental accreditation. Over the next six to nine months, the Advocacy Committee will focus on coordination and cooperation with EPA headquarters and regional offices on laboratory accreditation matters. The Advocacy Committee also receives regular input from the Small Laboratory Advocate on those issues which are of special concern to small labs seeking accreditation. The Advocacy Committee will continue to plan and publish the TNI newsletter, as well.

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THE NELAC INSTITUTE

## TNI Plans for 2010 (cont.)

### Information Technology

On October 15, 2009, the TNI Website and National Database committees were merged to form the new Information Technology (IT) Committee. This committee will be responsible for the TNI website and take on a new role in implementing a national Laboratory Accreditation Management System (LAMS). The IT committee will also be responsible for maintain various analyte, method, and technology codes.

### Consensus Standards Development

The mission of the Consensus Standards Development Program is to guide the development and maintenance of standards for TNI. During the past year, the Board activities have focused primarily on resolution and finalization of the Tentative Interim Amendments (TIAs), as developed by the applicable Expert Committees. Several TNI Expert Committees continue to work on issues related to the upcoming implementation of the new TNI Standards. Quality Systems is in the process of developing a new checklist to support implementation of the laboratory modules. They will also be considering development of additional guidance documents, as needed. On-Site Assessment has developed several guidance tools, and plans to conduct additional surveys of laboratories and assessors. Accreditation Body and Proficiency Testing will continue to assess the need for guidance related to the implementation of their respective modules, as well.

### Laboratory Accreditation System

For 2010, the Laboratory Accreditation System Committee (LASC) will be updating the Standard Interpretation Request process that saw delays during the finalization of the new TNI standard. They will also be working on policy and guidance for implementing the 2009 TNI standards.

### Proficiency Testing (PT) Board

The PT Board has a major effort underway to update the Fields of Proficiency Testing (FoPT) tables for chemistry and add FoPT tables for whole effluent toxicity and air. As part of this effort, the experimental PT tables will be removed from the website. The new tables will go into effect July 1, 2010 to allow PT providers and laboratories time to implement these changes.

## NELAP Board Adopts New TNI Standards

By Carol Batterton, TNI

On August 24, 2009, the NELAP Board adopted the new TNI standards for use in the state-recognized laboratory accreditation programs. By separate vote, the NELAP Board established July 1, 2011 as the official implementation date. The July 1, 2011 implementation date allows state accreditation bodies sufficient time to change state regulations to reflect the new standards, as well as allowing laboratories time to come into compliance with the new standards. Prior to implementing the new standards, the NELAP Board will be working with the LASC and expert committees to ensure that all policies, checklists, and SOPs needed for implementation of the new standards are in place for the state accreditation bodies.

In order to help laboratories prepare for implementation of the new standards, TNI's Technical Assistance Committee, with funding from EPA, will be sponsoring a series of



### *Report from San Antonio*

*By Jerry Parr, TNI*

*The 2009 summer Forum on Laboratory Accreditation occurred in San Antonio, Texas from August 10-15, 2009. This meeting was the third combined meeting of the Forum with the National Environmental Monitoring Conference (NEMC). The technical presentations from the NEMC meeting can be found at <http://www.nemc.us>.*

*Over 400 attendees enjoyed the Riverwalk, while working on a number of issues related to environmental laboratory accreditation. TNI committees held public meetings during the week. In addition, a number of special sessions were held, including an assessment forum, a keynote presentation, and two mentoring sessions. Minutes from the meetings are located on the committee page on the website.*

*Presentations at the 2009 summer meeting included:*

- *Mentoring Workshop: The New TNI Laboratory Accreditation Standards*
- *Management and Technical Requirements for Laboratories Performing Environmental Analysis*
- *General Requirements for Accreditation Bodies Accrediting Environmental Laboratories*
- *General Requirements for Environmental Proficiency Test Providers*

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## NELAP Board Adopts New TNI Standards (cont.)

workshops, which will orient labs to the new standards and highlight differences. The workshops are tentatively scheduled to be held in the January to August 2010 timeframe at the following locations: Albany, NY; Boston, MA; Edison, NJ; St. Petersburg Beach, FL; Orlando, FL; Dallas, TX; Chicago, IL; Topeka, KS; Salem, OR; Salt Lake City, UT; and Washington, DC. Final information on workshop dates and locations will be available on the TNI website in early 2010.

At the San Antonio meeting, the NELAP Board elected Aaren Alger, Laboratory Accreditation Program Chief at the Pennsylvania Department of Environmental Protection, as the new chair of the NELAP Board. Aaren replaces Dan Hickman from the Oregon DEQ, who recently retired. Dan had been the Chair of the NELAP Board since the inception of TNI and has directed the Board's activities successfully through the start up of the new organization.

## The New TNI Laboratory Accreditation Standards

By Steve Arms, TNI Board Chair, Florida DOH

The requirements currently used in The NELAC Institute's (TNI) National Environmental Laboratory Accreditation Program (NELAP) are contained in one document, the 2003 NELAC Standard. This document contains requirements for laboratories, accreditation bodies, proficiency test (PT) providers, and a PT provider oversight body. The requirements were founded on international standards (i.e., ISO 17011, 17025, and Guide 43) with additional language developed by a quasi-consensus process over many years. Compared to other options, the 2003 NELAC Standard represents a comprehensive set of requirements focused on environmental testing that has as its basis the fundamental program components of a laboratory quality system, proficiency testing, and on-site inspection of the laboratory.

However, the NELAC Standard is far from perfect. It has extensive discussion about the management of an organization that no longer exists, has incorporated an obsolete version of ISO 17025, does not include all of the elements in ISO 17011, is unnecessarily complicated, and contains requirements that are not applicable to all types of laboratories. It is now time to move beyond the 2003 NELAC Standard.

Over the past few years, TNI's Consensus Standards Development Program has been developing a new set of accreditation standards for use by NELAP. The goals of this effort have been to develop standards that are:

- ◆ easier to understand,
- ◆ easier to implement,
- ◆ easier to revise,
- ◆ based on current version of ISO standards, and
- ◆ developed using a true consensus process.

This new effort began with a concept termed "Volumes and Modules" where a given Volume would contain the requirements for one particular group (e.g., laboratories) and the Modules would have all of the various requirements for that group in one place. For example, in the 2003 NELAC Standard, requirements for Accreditation Bodies (ABs) are found throughout the document; in the new TNI standard, the requirements for ABs are in Volume 2.

## Report from San Antonio cont.

- *General Requirements for an Accreditor of Environmental Proficiency Test Providers*
- *Mentor Session: Method Modifications*
- *Keynote Presentation: The Benefits of National Accreditation*

Copies of these presentations can be found on the TNI website at: <http://www.nelac-institute.org/cms/posts/conf-200908.php>.



Ken Jackson, Dan Hickman, and Aaren Alger enjoying a boat ride on the San Antonio River during an event sponsored by the San Antonio River Authority.

## New NELAP Accreditation Bodies

Virginia has applied to become a NELAP-recognized Accreditation Body and applications are pending from Oklahoma and Minnesota.



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## The New TNI Laboratory Accreditation Standards (cont.)

The work to develop these new standards is now complete. TNI's Consensus Standards Development Program has finalized, and the NELAP Board has adopted, four new standards that when used together form the core requirements for establishing a national program. These standards are:

- Volume 1: Management and Technical Requirements for Laboratories Performing Environmental Analysis
- Volume 2: General Requirements for Accreditation Bodies Accrediting Environmental Laboratories
- Volume 3: General Requirements for Environmental Proficiency Test Providers
- Volume 4: General Requirements for an Accreditor of Environmental Proficiency Test Providers

Compared to the 2003 NELAC Standard, the new TNI standards are a substantial improvement.

- **The new standards clearly identify ISO language and use it faithfully.**

The 1997 version of ISO 17025 is incorporated to a large extent in Chapter 5 of the 2003 NELAC Standard. However, it is not clear what language comes from 17025 and what language was developed by the NELAC effort. In some cases, edits were made to the original 17025 language. The new TNI standard contains the ISO language verbatim, or has an indication that the particular section is not relevant. In addition, the ISO language is always shown in italicized text so that the reader is very clear on the source of the language.

- **The new standards have removed requirements for laboratories that are not essential for data quality.**

For the most part, the requirements contained in the 2003 NELAC Standard are also contained in the new TNI standards. A laboratory that is in conformance to the 2003 NELAC Standard will be in conformance to the new TNI standards. However, the new TNI standards contain more flexibility in meeting the requirements. Below are some examples:

- ◆ Results for PT samples do not have to be reported to a "PT Reporting Limit," but instead to the laboratory's limit of quantitation.
  - ◆ Some items that were required to be contained in a Quality Manual (e.g., organizational charts) may now exist elsewhere, as long as a reference to these items is in the Quality Manual.
  - ◆ Arbitrary expiration dates for reagents are no longer required.
  - ◆ Additional flexibility exists for demonstration of capability.
- **The new standards contain the specific technical requirements for different types of laboratories in technical modules.**

The 2003 NELAC Standard was largely written by chemists, for chemists. Thus, a lot of the technical requirements that were written as general requirements for all types of testing (e.g., instrument calibration, demonstration of capability) were written from the perspective of a laboratory performing chemical analyses and are not truly applicable to other types of testing. The new technical modules for asbestos, chemical, microbiological, toxicological, and radiochemical testing now clearly contain all of the technical requirements for that type of testing.



### *TNI Awarded Assistance Agreement for Standards Implementation and Technical Assistance*

*On July 29, 2009, the US Environmental Protection Agency awarded TNI a cooperative agreement to assist with implementing both the laboratory and field accreditation programs.*

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### *Future TNI Meetings*

January 25 — 29, 2010  
Hyatt Regency Chicago  
Chicago, IL

August 9 — 13, 2010  
Hyatt Regency Capitol Hill  
Washington, DC

February 7 — 10, 2011  
Hyatt Regency Savannah  
Savannah, GA

July 18 — 22, 2011  
Hyatt Regency Bellevue  
Bellevue, WA




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## Update on PT Frequency and Related Topics

By Kirstin McCracken, TestAmerica

Over the past eighteen months, the TNI Proficiency Testing (PT) Expert Committee has been discussing the frequency in which PT samples should be analyzed. See the Third Quarter 2008 issue of The Institute Review for background information on this topic (<http://www.nelac-institute.org/newsletter.php>). This article summarizes events related to this topic over the last few months and directs you to related information on the TNI website. TNI encourages all members to review all this information and provide comments to the PT Committee chair, Kirstin McCracken at [kirstinl.mccracken@testamericainc.com](mailto:kirstinl.mccracken@testamericainc.com).

### PT Frequency Subcommittee Effort

In April 2008, TNI formed a subcommittee specifically charged to “gather and analyze information associated with frequency of proficiency testing, including existing information in published literature, economic assessments of the impact of a change in frequency, stakeholder opinions, and objective data analysis studies.” The subcommittee completed their work in July of this year and submitted a report to the PT Committee. The report can be found under *Documents and Presentations* on the PT Committee page at: <http://www.nelac-institute.org/committees.php>.

This report contains statistical evaluations of NELAC and non-NELAC laboratories’ PT performance, the result from a survey of Accreditation Bodies, a survey of laboratories on economic factors surrounding PT sample analyses, and information about how other countries manage PT programs. The PT committee will use the data in this report as they continue to study this issue.

### Laboratory Survey

In late 2008, Judy Morgan of Environmental Science Corporation, as part of an effort to get her MBA, conducted a comprehensive survey of 1200 laboratories. Ms. Morgan presented the results from this survey at the 2009 TNI meeting in Miami. The presentation, *Benefits of Laboratory Accreditation*, can be found on the Miami Conference page at: <http://www.nelac-institute.org/cms/posts/conf-200908.php>. Several of the questions focused on PT. Of the 509 responses, 84% believe PT samples enhance laboratory quality and 71% believe PT samples improve laboratory processes. However, the majority of laboratories (66%) believe one sample per year is adequate.

### ELAB Efforts

EPA’s Environmental Laboratory Advisory Board (ELAB) has a workgroup discussing this issue. ELAB members have diverse opinions on the topic, but expect to develop a consensus recommendation early next year. ELAB’s efforts may be monitored by reviewing their meeting minutes at <http://www.epa.gov/elab/minutes.htm> or by participating in ELAB’s conference calls as described at: <http://www.epa.gov/elab/events.htm>.

### SLAG Efforts

The Small Laboratory Advocacy Group has also been discussing the issue of PT frequency. The comments from this group can be found at: <http://www.nelac-institute.org/board/>. The comments provide arguments for and against two samples per year, as well as raise many other interesting issues such as PT failure, assessment frequency, and size of laboratory.

### Combining WS and WP Samples

Although this topic is not directly related to frequency of PT sample analyses, it is noteworthy because of recent actions by the PT Committee. In the ballot of the TNI standard that occurred in 2008, the committee received seven negative votes that related to combining the wastewater (WP) and drinking water (WS) PT samples into one water sample. The PT committee considered these



## **TNI’s National Environmental Field Activities Program**

By Marlene Moore,  
Advanced Systems

*The TNI Board has approved the TNI Field Activities committee recommendation for the membership and establishment of the National Environmental Field Activities Program (NEFAP) Board.*

*The NEFAP Board has representatives from all interested parties. The initial term is for one year. During the first year, the board members are charged with developing the program procedures and policies for operation of the field activities accreditation program. If you have input or questions, please feel free to contact any of the members.*

**Chair:** Marlene Moore (Advanced Systems)

**Accreditation Bodies:** Scott Evans (STAC), Cheryl Morton (AIHA), Brian Connor (A2LA), Keith Greenway (ACCLASS), Douglas Berg (PJLA)

**Other:** Jan Wilson, Mike Miller, Patrick Conlon (ESI), Michelle Henderson (EPA)

**Field Sampling Measurement Organizations:** Dane Wren, Kim Watson (Stone Environmental Inc), Calista Daigle (Shaw - National Air Measurements Group), Justin Brown (EMT), John Moorman (South FL Water Management Dist).

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## Update on PT Frequency and Related Topics (cont.)

comments in August of this year, and by a two-thirds affirmative vote, ruled all of the negative votes non-persuasive. The primary basis for this decision was that the required concentration ranges, analyte lists, and acceptance criteria of the studies are not sufficiently similar to merge the two matrices. The vote tally and response to the negative votes can be found under *Documents and Presentations* on the PT Committee page at: <http://www.nelac-institute.org/committees.php>.

### Summary

The PT Expert Committee has affirmed that it will continue to review and evaluate information regarding the required frequency of PT studies. TNI believes that the information that the PT Expert Committee will now consider will go beyond the statistical analysis of the data from PT studies to define the purpose of PT in the context of accreditation and to do so, TNI needs to better understand how ABs (e.g., NELAC and Non-NELAC, USEPA, other Federal Programs) define the purpose of PT. TNI again encourages everyone to participate in the continued discussions on this issue.

## Stationary Source Compliance Audit Program Update

By Maria Friedman, TestAmerica

The march toward privatization of the EPA's Stationary Source Compliance Audit Program continues. As mentioned in the last edition of *The Institute Review*, stationary source testing is a field of environmental monitoring that measures the emissions of air pollutants from stationary sources, such as factories and power plants. In July 2008, TNI formed a Stationary Source Audit Sample (SSAS) Expert Committee tasked with developing standards for a privatized SSAS program.

As anticipated, in June 2009, EPA published a proposed rule in the Federal Register that would provide the regulatory framework supporting a privatized audit sample program. The proposal attracted comments from a variety of stakeholders (available at [www.regulations.gov](http://www.regulations.gov), docket #EPA-HQ-OAR-2008-0531). The comment period ended on August 5, 2009, and as of the date of this article, EPA has not issued a final rule. Meanwhile, the work of TNI's SSAS committee has continued.

At teleconferences held nearly every week since early in the year, the SSAS Expert Committee has been driving the creation of the Stationary Source Audit Sample Program Standards. This includes three modules containing the standards for audit sample Providers, Provider Accreditor, and Participants. The final Voting Draft Standards will soon be published on the TNI website. Meanwhile, the committee has much work ahead: development of a guidance document, creation of a web-based database for SSAS data, and transitioning TNI's role from authoring standards to program management.

For more information, visit the committee's homepage at [www.nelac-institute.org/committees.php](http://www.nelac-institute.org/committees.php), or see EPA's page at [www.epa.gov/ttn/emc/email.html](http://www.epa.gov/ttn/emc/email.html).

## TNI's National Environmental Field Activities Program cont.

*The Field Activities committee and NEFAP board are developing standards, policies, procedures, and implementation programs for the USEPA Environmental Lead Regulations and stack testing requirements, as defined in ASTM D7036. These programs are using the TNI FSMO standards and program specific requirements as the basis for the recognition process. Discussion of these kick-off programs will be presented during the January 2010 TNI forum. Input from all parties is encouraged either at this meeting or by email.*



*Scott Evans presenting the advantages of TNI's new field accreditation program.*



### TNI Small Laboratory Advocate

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## 2010 Forum on Laboratory Accreditation

By Jerry Parr, TNI

Registration is now open for the 2010 Forum on Laboratory Accreditation to be held at the Hyatt Regency Chicago from January 25 — 29, 2010. The January 2010 Forum will focus on implementation of the new TNI consensus standards that will replace the 2003 NELAC Standard in 2011. The Forum will feature open public meetings of all TNI committees to allow quality professionals, chemists, analysts, microbiologists, engineers, and managers from federal and state agencies; commercial, municipal, state and federal laboratories; and many others who are actively involved and interested in laboratory accreditation issues to review what has been done and participate in the efforts to establish a national environmental laboratory program.

The January 2010 Forum will include:

- ◆ An Assessment Forum with a focus on audit consistency;
- ◆ A Mentoring Session on detection and quantitation;
- ◆ Meetings of all TNI committees;
- ◆ A meeting of EPA's Environmental Laboratory Advisory Board (ELAB);
- ◆ A general session with updates about TNI and ELAB activities;
- ◆ A training course on ICP and ICP/MS analyses; and
- ◆ A workshop on the new TNI standards.

In addition, the Board of Directors of the Illinois Association of Environmental Testing Laboratories will have an open meeting in conjunction with the Forum. For more information, go to the 2010 conference website at: <http://www.nelac-institute.org/meetings.php>.

### 2010 Forum on Laboratory Accreditation Preliminary Schedule

#### MONDAY, JANUARY 25

8:30 a.m. — 12:00 p.m.  
Opening Plenary

- ◆ Keynote Address
- ◆ Report on TNI Activities
- ◆ ELAB Presentation

1:30 p.m. — 5:00 p.m.  
Concurrent Sessions

- ◆ Environmental Laboratory Advisory Board
- ◆ Accreditation Body Committee
- ◆ Policy Committee

5:30 p.m. — 7:00 p.m.  
Reception

#### TUESDAY, JANUARY 26

8:30 a.m. — 12:00 p.m.  
Concurrent Sessions

- ◆ Proficiency Testing (PT) Committee
- ◆ Assessment Forum

1:30 p.m. — 5:00 p.m.  
Concurrent Sessions

- ◆ PT Board
- ◆ Stationary Source Audit Sample Committee
- ◆ Assessment Forum (cont.)

#### WEDNESDAY, JANUARY 27

8:30 a.m. — 12:00 p.m.  
Concurrent Sessions

- ◆ Information Technology Committee
- ◆ NELAP Board
- ◆ Quality Systems Committee

1:30 p.m. — 5:00 p.m.  
Concurrent Sessions

- ◆ Laboratory Accreditation Systems Committee
- ◆ On-Site Assessment Committee
- ◆ Technical Assistance Committee

5:30 p.m. — 7:00 p.m.  
Reception & Exhibit

#### THURSDAY, JANUARY 28

8:30 a.m. — 12:00 p.m.  
Concurrent Sessions

- ◆ Mentor Session: Determination of Detection and Quantitation Limits
- ◆ Advocacy Committee
- ◆ NEFAP Board and Field Activities Committee
- ◆ Consensus Standards Development Board

#### THURSDAY, JANUARY 28 (cont.)

1:30 p.m. — 5:00 p.m.  
Concurrent Sessions

- ◆ TNI Board and Chairs Open Meeting
- ◆ Illinois Association of Environmental Testing Laboratories

#### FRIDAY, JANUARY 29

8:30 a.m. — 3:00 p.m.

Workshop: The NEW TNI Laboratory Accreditation Standards

8:00 a.m. — 4:00 p.m.

Training Course: Inductively Coupled Plasma and Mass Spectrometer Analysis and Data Review



### TNI Board Adopts New Recognition/ Accreditation Symbols

*On October 14, 2009, the TNI Board of Directors approved three new symbols to be used for certificates issued to laboratories or accreditation bodies.*

*Laboratories may continue to use the old half-circle NELAC symbol or use the new TNI symbol on general literature such as catalogs, advertising, business solicitations, proposals, quotations, laboratory analytical reports, or other materials, according to Section 6.8 of the 2003 NELAC Standard. High-resolution versions of these new symbols are available in a variety of formats on the TNI website under General Info.*



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## TNI Participation

By Judy Duncan, Oklahoma DEQ

### Committee Membership

TNI is an organization that relies upon membership participation for its continued success. One way to participate is by joining a committee as a Member or an Associate. Each fall, committee membership is reviewed, expiring terms are identified, and members are renewed for an additional term or replaced by new members. If you would like to become involved by becoming a member of a committee, you should check the TNI website for information. The website home for TNI Committees is <http://www.nelac-institute.org/committees.php>.

The first links that you will find on the site are links to the application form for committee membership and the SOP for committee operations. At this site, you will also find links to each committee and program of TNI. The link will lead you to the charter for the group, its current membership, and meeting minutes as well as a link to contact the committee chair or TNI administrator for the program. We invite you to volunteer to participate on a TNI Committee. Speak up and make your opinions known!

### Board Elections

Article V of the TNI By-Laws describes the TNI Board of Directors, its responsibilities and membership and election requirements. The TNI By-Laws can be found on the website at <http://www.nelac-institute.org/docs/TNIBylaws2008.pdf>. During the first three months of the calendar year, the Nominating Committee puts forward a slate of candidates for vacancies on the Board of Directors. The process used for nomination and nomination application forms will be posted on the TNI website. The solicitation period is a minimum of sixty days. A solicitation to the membership for nominations will also be on the website at the same time. If you wish to serve on the Board or know of someone that you believe would do a good job representing your interests, be on the lookout for this solicitation to appear soon.

## ELAB and EPA Efforts on Revised SW-846 Methods

By Ray Merrill, ERG and Michael Wichman, Iowa Hygienic Laboratory

Numerous issues have been identified by the laboratory community on how revisions to the SW-846 methods should be released and used. EPA's Environmental Laboratory Advisory Board (ELAB) has been working with EPA's Office of Resource Conservation and Recovery (ORCR) to generate a policy on the release of revised SW-846 methods. During the ELAB meeting at the Environmental Measurement Symposium in San Antonio, Texas, Mr. David Spies, representing ELAB, and Ms. Kim Kirkland, representing ORCR, presented *Clarifying USEPA Policy on the Use of SW-846 Methods and Their Revisions*. The goal of the policy is to eliminate confusion about which method to use when multiple versions of the same method are published.

Mr. Spies presented a list of ELAB's proposed recommendations to ORCR. The recommendations provided potential ways the SW-846 method revision system could be modified and included adding a summary of the changes to revised methods. ELAB recommended a new method number be given to methods for revisions that included technological or QC changes. ELAB also recommended that ORCR meet with states and interested stakeholders to ensure stakeholders understand the intent for use of revised SW-846 methods. Currently, there is a gap between intended use of revised methods by ORCR and implementation at the state program level.

Ms. Kirkland presented the ORCR response to the proposed ELAB recommendations as well as a draft policy statement. The policy statement addresses how methods are issued and clarified



### *Final Version of TNI Laboratory Accreditation Standards Available*

*Over the past few months, the TNI laboratory accreditation standards were modified by seven Tentative Interim Amendments (TIAs) and minor editorial changes. The final versions of these documents are now available on the TNI website. Those individuals and organizations that had purchased an earlier version of the standards with the ISO language will receive an updated version in early November. A summary of the seven TIAs is on the TNI website under News.*



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URL: <http://www.nelac-institute.org>

## ELAB and EPA Efforts on Revised SW-846 Methods (cont.)

definitions of terms used to communicate method status. The draft policy includes the following points: 1) SW-846 is guidance manual with flexible application of the methods; 2) ORCR relies on the scientific community to help identify the need for new methods or revisions; 3) laboratories validate new or revised methods; and 4) method revisions are posted via the Federal Register with a public review process, followed by a Federal Register notice for the release of new methods. The ORCR policy clarifies that new methods are superior to previous methods with the same number.

Because SW-846 methods are guidance documents, previous versions cannot be precluded from use. In general, new revisions are preferred. The draft policy requires ORCR to detail what changes have been made and each revision will include a separate document that catalogs changes to the method. Ms. Kirkland emphasized that methods are listed as draft after being validated in laboratory use but have not completed the final internal agency review process. The official versions of methods that have completed EPA review are designated as “final” and can be found on the SW-846 website. Only final versions are printed in the SW-846 compendium.

Ms Kirkland also presented other definitions included in the draft policy. A “minor revision” is a change that does not include a change to the method technology and typically involves typographic corrections and clarifying language. “Major revisions” include instances where QC, technology, method results, or data comparatively changes are made to methods.

Following the presentations from Mr. Spies and Ms. Kirkland, a question and answer session was opened for both ELAB members and the audience. There was considerable discussion related to method status and whether prior methods could be designated as “withdrawn” or “removed.” Currently, methods are only designated as “withdrawn” due to incorrect performance and/or results from the method could lead to life threatening errors. There was discussion that a different term was needed to designate methods that ORCR has replaced.

ORCR plans to continue to work with ELAB and others to address these issues. The office will not require use of the latest SW-846 methods, but will continue to recommend that the latest method revisions be used where appropriate and applicable.

## Member Spotlight: Keith Chapman

By Kirstin McCracken, TestAmerica

This issue’s Spotlight is on TNI Member, Keith Chapman. Mr. Chapman is the Laboratory Program Manager for the Willow Lake Water Pollution Control Plant (WPCF) in Salem, Oregon and is an active participant with the TNI Small Laboratory Advisory Group (SLAG).

The Willow Lake WPCF provides wastewater treatment services to the Salem-Keizer metropolitan area and operates under the authority of an Oregon Department of Environmental Quality (ODEQ) NPDES Permit. Keith told me that the plant was built in 1963 and was once the largest trickling filter plant west of the Mississippi River. The plant’s laboratory section employs seven analysts and provides analytical testing services to support the operation of the wastewater plant and drinking water treatment system. The laboratory is NELAP-accredited. Typical of “small” laboratory operations, Keith wears many different hats. Although his official job title is Program Manager, he is the QA Manager, Technical Director, and the unofficial curator of the “plant museum.” A self-proclaimed pack rat, Keith has archived over fifty years worth of scientific instruments and manuals related to water testing!

Mr. Chapman did not always work in the wastewater industry. After obtaining a BS in Chemistry from St. Mary’s College of California and a MS in Inorganic Chemistry from Bowling Green State University, he taught high school math and science for twelve years before deciding he wanted to try



## TNI Outreach

*The TNI Board of Directors would like to thank the following individuals for their efforts in providing information about TNI at various local and regional meetings:*

- ◆ *Pat Conlon, Environmental Standards, Virginia Water Environment Association, August 2009*
- ◆ *Justin Brown, Environmental Monitoring Technology, Midwest Groundwater Conference, October 2009*
- ◆ *Marlene Moore, Advanced Systems, Florida Society of Environmental Analysts, October 2009*
- ◆ *Jerry Parr, TNI, EPA Region 6 Quality Conference, October 2009*
- ◆ *Linda DeWitt, Business Owner Support Services, EPA Region 6 Quality Conference, October 2009*
- ◆ *Judy Morgan, Environmental Science Corporation, EPA Region 6 Quality Conference, October 2009*



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## Member Spotlight: Keith Chapman (cont)

something different. Shortly thereafter he landed a job in the wastewater industry as a bench analyst and found his niche. He told me that October of this year marks his twenty-third year at the Salem Plant.

I asked Keith how the industry has changed since he started and he told me that in the early years, the EPA approved methods for wastewater testing barely mentioned quality control — the primary focus of the test method was the procedure itself. By following the procedure, analytical results were considered technically “correct.” With the inception of the drinking water certification and the national accreditation program, industry focus gradually shifted to emphasize quality assurance, quality control and quality systems. However, because certification or NELAP accreditation is voluntary in many states for wastewater laboratories, the shift towards QA/QC and quality systems has been slower to permeate the wastewater testing industry.

When I asked him why this was so, he told me that there is little economic incentive for these laboratories to obtain voluntary accreditation. When there is no requirement for prospective clients to use accredited laboratories to perform wastewater testing, accreditation provides little competitive advantage over non-accredited laboratories. Additionally, the NELAC accreditation requirements are daunting and burdensome to small laboratory operations that employ in some instances, one or two people. However, Keith recognizes the benefits that implementation of a NELAC quality system can provide to laboratory operations. In his own laboratory, he says analysts embraced comprehensive quality control and the corrective action process required in the NELAC standard because they saw how a systematic approach to solving problems can improve the operation.

Keith is a strong advocate for “small” testing laboratories, both municipal and commercial, and he is involved in several industry groups and associations including the Water Environment Federation from which he was awarded the Laboratory Analyst Excellence Award. He is an active member of 5S — the Select Society of Sanitary Sludge Shovelers, and the Boffin Society. He describes the membership of the latter organizations as casual industry groups comprised of fun like-minded professionals dedicated to fostering programs that improve water quality as well as the business environment of laboratories working in the State of Oregon. Keith is also active in the Oregon Environmental Laboratory Association, which works to provide resources for commercial and municipal environmental labs in Oregon (website: [www.oelaonline.com](http://www.oelaonline.com)).

Keith attended his first TNI meeting this summer in San Antonio where he was pleased to finally attach faces to the names of people he had heard about over the years. He told me he would encourage every TNI Member to attend at least one meeting in order to experience first hand how the TNI process works. In San Antonio, he was especially encouraged to see how serious the participants were in developing a standard of technical excellence — he acknowledges standards development takes time, but seeing the process first hand helped him realize how he could best get involved.

Keith participates in TNI’s Small Laboratory Advocacy Group (SLAG) headed by Len Schantz and says Len is doing an excellent job gathering concerns and issues of the small laboratory community. It is now time for TNI to take action to assist this industry group. Keith thinks small labs need resources, education, and tools to assist with the accreditation process as well as accreditation, quality system, and proficiency testing requirements appropriate to the type of work performed by small testing laboratories. He will continue to work to be sure small labs are represented.

What does Keith do in his spare time? He plays golf and kayaks with his wife and writes songs about Biochemical Oxygen Demand (BOD). A song about BOD? Sounds like a great conversation starter with Keith the next time you run into him. One of his legacies is his daughter who is also a lab analyst as well as a good singer.



### *Call for Papers for 2010 National Environmental Monitoring Conference*

*The National Environmental Monitoring Conference (NEMC) provides the principal forum for addressing policy and technical issues affecting monitoring in all environmental media (i.e., water, air, soil, and waste) and across all environmental programs. Since 2007, NEMC has been combined with TNI’s Forum on Laboratory Accreditation under the auspices of the **Environmental Measurement Symposium** to allow many attendees to minimize travel costs.*

*The 2010 Environmental Measurement Symposium will be held in Washington, DC from August 9-13, 2010. The NEMC Board of Trustees is inviting abstracts for oral or poster presentations in a number of specific topic areas. For more information, visit the NEMC website at <http://www.nemc.us>.*




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### TNI MISSION

The NELAC Institute is a 501(c) 3 non-profit organization whose mission is to foster the generation of environmental data of known and documented quality through an open, inclusive, and transparent process that is responsive to the needs of the community.

### VISION

All entities generating environmental data in the United States will be accredited to consensus national standards.

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