



# **THE INSTITUTE REVIEW**

Second Quarter 2013



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## 7th Environmental Measurement Symposium Coming to San Antonio, Texas

By Lara Phelps, USEPA and Jerry Parr, TNI

### Deadline for Early Registration is Friday, July 12.

The Environmental Measurement Symposium, which represents the combined meetings of the National Environmental Monitoring Conference (NEMC) and the Forum on Laboratory Accreditation (the Forum), will be meeting for its seventh year and will be held this summer at the Hyatt Regency San Antonio from August 5 – 9, 2013. Another exciting and informative meeting is expected and we look forward to seeing you there!

Some of the highlights for the week include:

- Over 175 technical presentations and posters on a variety of cutting-edge environmental monitoring issues;
- Twenty meetings of The NELAC Institute (TNI) Committees to further TNI efforts on environmental laboratory accreditation, proficiency testing, and accreditation of field sampling and measurement organizations;
- An exhibit program showcasing the latest innovations in environmental monitoring;
- Three technical training courses on a variety of topics;
- Three special keynote presentations on topics of general interest;
- A special half-day session providing perspectives on shale gas exploration; and
- An open meeting of the US Environmental Protection Agency's (EPA's) Environmental Laboratory Advisory Board.

### Forum on Laboratory Accreditation

The NELAC Institute's (TNI's) semi-annual meeting is an integral part of the Environmental Measurement Symposium. Throughout this issue of The Institute Review, there are multiple articles provided to prepare you for the meeting: the mentoring sessions, the Assessment Forum, training courses, and the National Environmental Monitoring Conference (NEMC). This article summarizes the meetings of TNI's four core programs. As these sessions become further developed, additional details will be available on the TNI website at <http://www.nelac-institute.org>.

### Proficiency Testing Program: Monday, August 5

On Wednesday afternoon, TNI's Proficiency Testing (PT) Executive Committee will have a session devoted to PT issues. Some of the topics to be discussed include:

- Standard operating procedures for managing Fields of Proficiency Testing (FoPT) tables,
- Changes to the existing FoPT table for solid and chemical materials, and
- The process for evaluation of PT Providers.

### Consensus Standards Development Program: Tuesday – Thursday, August 6 – 8

The purpose of this program is to develop consensus standards for use by TNI's other programs. This program also has a support role in assisting other programs with activities such as guidance and standards interpretation. All eight of the Expert Committees in this program will be meeting.

- The Chemistry Expert Committee will discuss the comments received on the draft calibration section of the environmental laboratory standard. Draft language for a proposed Working Draft Standard (WDS) for detection and quantitation is being prepared and will be presented to the membership.
- The Field Activities Committee plans to discuss comments on the revised standard for accreditation of Field Sampling and Measurement Organizations.
- The Laboratory Accreditation Body Committee will be presenting ideas on how TNI can support the use of third-party assessors by an Accreditation Body.
- The Proficiency Testing Expert Committee expects to have a proposed WDS for all 4 PT standards for discussion.
- The Quality Systems Committee will present all comments on the 2012 Voting Draft Standard.
- The Stationary Source Audit Sample Committee will be discussing the latest developments in the TNI SSAS Program in response to the privatization of the EPA's Stationary Source Compliance Audit Program (SSCAP).
- The newly formed Microbiology and Radiochemistry Committees will be discussing their plans for revisions to Modules 5 and 6 of the laboratory accreditation standard.



## 7th Environmental Measurement Symposium Coming to San Antonio, Texas cont.

### ***National Environmental Field Activities Program (NEFAP): Thursday, August 8***

The NEFAP Executive Committee will meet on Thursday afternoon with a session devoted to discussions for implementing an accreditation program for Field Sampling and Measurement Organizations (FSMOs). Topics will include:

- Changes to Policies and SOPs, and
- Status of implementing this program.

### ***National Environmental Laboratory Accreditation Program (NELAP): Friday, August 9***

On Thursday morning, a session is devoted to discussions on NELAP. Topics include:

- Update on recognition of NELAP ABs,
- Update on Standard Interpretation Requests, and
- Status of implementing the 2009 TNI standard.

### **National Environmental Monitoring Conference (NEMC)**

The 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. NEMC is co-sponsored by The NELAC Institute (TNI) under a cooperative agreement with the U.S. Environmental Protection Agency (US EPA). The technical program is organized by a committee of environmental experts from government and private industry, which brings together for each year's symposium a balance of technical and policy topics that are of interest to all.

NEMC 2013 will feature over 175 presentations and posters organized into concurrent technical sessions from Monday through Thursday with a general session on Wednesday morning. A keynote address on a major topic will kick-off the start of each day.

- Technical Sessions for NEMC 2013 include:
- Academic Research Topics in Environmental Measurement and Monitoring
- Contaminated Sediments
- Field Measurements, Sensors, and In-Situ Monitoring
- History of Environmental Monitoring
- Monitoring Pesticides in the Environment: Past, Present, and Future
- Topics in Shale Gas Exploration
- Modeling, Mapping, and Geospatial Tools
- Spotlight on Method 8270 Instrumentation
- Data Management
- Laboratory Accreditation
- Three Sessions – Air Methods / Monitoring
- Current Topics Microbiology
- Legal Defensibility of Data
- Forensic Chemistry
- Operational and Advocacy Issues Impacting the Environmental Laboratory Industry
- Advances in Sample Preparation and Clean-up
- Analysis of Metallic Species and Organometallics
- Collaborative Efforts to Improve Environmental Monitoring
- Topics in Drinking Water

The Wednesday morning General Session will feature presentations regarding policy and technical issues surrounding shale gas exploration.

Please take a few minutes to look over the preliminary program and register today. To view abstracts and the preliminary program in addition to conference arrangement details, visit <http://www.nemc.us>.



## 7th Environmental Measurement Symposium Coming to San Antonio, Texas cont.

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### Training Courses at the Environmental Measurement Symposium

As part of the Environmental Measurement Symposium, three training courses on a variety of topics are being offered. A brief summary of each of the courses is provided below but more information about these courses can be found at: <http://www.nelac-institute.org/meetings.php>. Please remember to register for each course you wish to attend, as seating is limited and a charge additional to the general registration fee may apply.

**1. Powerful Communications – Public Speaking for Scientists**

This seminar will explore how scientists can effectively present data and results in an exciting, convincing manner. At the end of this session, the participant is empowered to seek new and interesting ways to present charts, graphs, and results, while telling a story which ties the many parts together. Several opportunities for audience involvement will be presented.

**2. Implementing the 2009 TNI Standard in Your Laboratory**

The objective of this one-day course is to help laboratory management understand the requirements of the 2009 TNI Standard. The material, based on the requirements outlined in the V1M2 of the 2009 TNI Standard, will “demystify” terminology, provide assistance in understanding the requirements, and provide guidance on how to incorporate the requirements of the Standard into laboratory operations without disrupting current practices. The participants will also take part in group activities that will enhance their ability to apply the standard to their laboratory operations.

**3. NEFAP As Seen Through the FOG – Quality for Field Operations**

The objective of the training is to present information on the essential elements needed to ensure the technical competence and performance of field operations. The course provides Field Sampling and Management Organizations (FSMO’s) with a detailed comparison of the EPA Field Operational Group (FOG) guidelines and TNI FSMO standard requirements.



## Special Vendor Sessions Planned at the Environmental Measurement Symposium

By Jerry Parr, TNI

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*We are trying something new this year — some vendor-sponsored seminars. Three of these are planned, two for lunch on Monday and one evening seminar on Tuesday. All attendees will be asked to preregister for these seminars by email in late July. The three seminars are summarized below:*

### Monday, August 5; 12:00 – 1:30

#### Free Lunch Seminar with BUCHI Corporation

**From Dirt to Data** - BUCHI Corporation discusses sample extraction, concentration and clean-up tasks to meet the challenges of demanding trace environmental analyses. Learn how to optimize sample preparation, and then apply these techniques to your application. Explore BUCHI's solutions in an on-site live demonstration.

#### Free Lunch Seminar with Waters Corporation

**Atmospheric Pressure Gas Chromatography (APGC) for the Analysis of Persistent Organic Pollutants (POPs)** – The use of atmospheric pressure gas chromatography (APGC) for the analysis of persistent organic pollutants (POPs) has shown significant advantages over traditional GC-MS methods using electron ionization (EI). The soft ionization methods employed with APGC result in higher abundance molecular ions leading to improvements in both sensitivity and selectivity for many analyses. The ability to apply APGC on mass spectrometer types including tandem quadrupoles, QToF and QToF hybrids that include ion mobility provides additional improvements to GC amenable analyses as well. The information presented in this session describes the use of an APGC source coupled to a Xevo TQ-S to analyze dioxins, polychlorinated biphenyls (PCBs) and brominated flame retardants (PDBEs). Data is shown demonstrating linearity, sensitivity and repeatability.

### Tuesday, August 6, 5:30 – 7:00

#### Free Seminar with Bruker Daltonics

**Multiple Reaction Monitoring for EPA Methods: Improving Data Quality and Workflow in the Environmental Laboratory** – Laboratories are constantly challenged with the requirement of rapid turn-around-time from sample-to-report, while at the same time to reduce cost and generate high quality legally defensible data. Current regulatory EPA semi-volatile organic methods specify gas chromatography with selective detectors or single quadrupole mass spectrometry (GC/MS) as 'determinative techniques'. Many of these methods lack the specificity needed to detect target compounds in complex matrices and require experienced analysts to interpret results. An example of the problem cited in Method 8081B, a GC/ECD method, Section 4.2: "Interferences co-extracted from the samples will vary considerably from waste to waste. While general cleanup techniques are referenced or provided as part of this method, unique samples may require additional cleanup approaches to achieve desired degrees of discrimination and quantitation."

GC/MS/MS techniques have excellent sensitivity and selectivity and can be applied to many EPA methods to overcome these issues. Moreover, advances in instrumentation have made it easy for analysts to set up complex MRM methods and to reliably integrate and quantitate large sample sets.

Examples of the application of GC/MS/MS to various EPA methods will be presented in terms of calibration, precision, accuracy, and method detection limits (MDLs). A unique set of software tools, known as Compound Based Scanning (CBS) and Exception Based Data Review (EBDR) will clearly demonstrate easy set-up of the MRM acquisition parameters of the method, followed by advanced automated peak integration which greatly reduce the need for extensive analyst interaction with the final processed data.

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### **TNI Mentor Session and Assessment Forum in San Antonio**

*By Judy Morgan, ESC Lab Sciences*

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At each of TNI's semiannual meetings, TNI develops and presents two special sessions, an *Assessment Forum*, designed to provide information to assist laboratory assessors, and a *Mentor Session*, designed to present topical information of benefit to laboratories. The Assessment Forum and Mentor Session for San Antonio are summarized below.

#### **Assessment Forum: Monday, August 5, 9:00 am – 5:00 pm**

##### **Using ISO/IEC 17025 AB Interpretations to Assist Laboratory Compliance to the 2009 TNI Environmental Laboratory Standard**

This interactive session is designed to provide attendees with an understanding of ISO/IEC 17025 AB interpretations of ISO/IEC 17025 requirements to strengthen the laboratory's management system and support compliance to the 2009 TNI Standard.

#### **Mentor Session: Thursday, August 8, 1:30 pm – 5:00 pm**

##### **Recent Developments in the Analysis of Cyanide**

In the 2012 Method Update Rule, EPA approved 3 new methods for measuring cyanide and added a new analyte to 40 CFR Part 136, free cyanide. The rule also cites ASTM method D7365 for the collection and preservation of samples for cyanide. This mentor session will look at the definitions of free, available, and total cyanide, including insoluble cyanide. Participants will discuss the interferences and sample preservation issues described in ASTM method D7365 as well as the various interferences and related problems in measuring different forms of cyanide. The session will examine the new ASTM distillation gas diffusion method D7284, the new ASTM UV gas diffusion method D7511, and discuss applications of these methods to soil samples.



## TNI Updates EPA on Accomplishments and Objectives

By Sharon Mertens, Milwaukee Metropolitan Sewerage District

On April 12, 2013, TNI sent a report to EPA's Forum on Environmental Measurements (FEM) providing a summary of recent accomplishments and 2013 objectives in the areas of standards development, National Environmental Laboratory Accreditation, accreditation of Field Sampling and Measurement Organizations, proficiency testing, training and outreach. The content of this report is shown below.

### Consensus Standards Development

Two volumes of TNI's environmental laboratory sector standard (ELSS) provide requirements for laboratories and laboratory accreditation bodies. Two volumes for proficiency testing standards related to all types of measurement are designed for proficiency test (PT) providers, and PT provider accreditors. These four volumes are now classified as American National Standards by the American National Standards Institute. Two volumes for TNI's Field Sampling and Measurement Organizations (FSMOs) provide requirements for sampling and field measurement organization and those accreditation bodies. In our ongoing interest in continual improvement, further ELSS development is underway. A new calibration standard for fixed laboratory management systems is nearing completion, and an update of the PT requirements is in process. We are also beginning development of updates to the management system standards for microbiology, radiochemistry, and chemistry. TNI has established requirements for quality and management systems of FSMOs and their accreditors to improve the quality of data collection, and updates to the standards are in the final stages. Lastly, the Office of Air's recognition is pending for the Stationary Source Audit Sample Program, which is based on the recently approved TNI standard.

### National Environmental Laboratory Accreditation Program

TNI's National Environmental Laboratory Accreditation Program (NELAP) now has 14 states and 15 Accreditation Bodies (ABs). Region 6 provides a liaison with the Agency and coordinates EPA participation in the evaluations of NELAP ABs, as some regions choose to continue in that role. NELAP has adopted the 2009 TNI ELSS. All NELAP ABs are evaluated against Volume 2 of this standard (ISO 17011). Five state ABs officially accredit laboratories to Volume 1 (V1, ISO 17025) of that standard, while the remaining 10 state ABs are still transitioning, but do not penalize labs for implementing the "new" standard. Additionally, 28 of the remaining 35 states with laboratory accreditation programs utilize some aspect of the TNI standards or recognize NELAP accreditation as equivalent to their in-state programs. More states utilize the Field of Proficiency Testing (FoPT) tables developed by TNI and virtually all states utilize PT providers recognized by TNI.

TNI provides national resources useful to stakeholders of the environmental laboratory community. These include the Laboratory Accreditation Management System (LAMS) database ([www.nelac-institute.org/lams](http://www.nelac-institute.org/lams)), method and analyte codes used by virtually all state programs, and a database of accreditation/certification programs for every state ([www.nelac-institute.org/abdb.php](http://www.nelac-institute.org/abdb.php)).

Traditionally, laboratories have been accredited under NELAP by state agencies recognized by TNI as Accreditation Bodies. Over the past year, TNI has initiated a major effort to evaluate how Non-Governmental Accreditation Bodies (NGABs) may participate in NELAP. In March of this year, a working group was convened to develop the policies and procedures to implement a program that would recognize NGABs to accredit laboratories to the TNI laboratory standard. We expect this to be a reality in early 2014.

### Field Sampling and Measurement Organizations

The National Environmental Field Activities Program (NEFAP) launched the accreditation of FSMOs in August 2011. The NEFAP Executive Committee has developed AB evaluation and recognition procedures to ensure the consistent implementation of the TNI FSMO standards. These procedures and oversight by the Executive Committee allow one accreditation to be accepted everywhere technically competent field activities are required by data users. The Executive Committee has established a Recognition Subcommittee to perform the review of the evaluation process and provide recommendations on accreditation as well as to make the recognition decision. Currently one AB is fully recognized and is accrediting FSMOs to the TNI 2007 FSMO standard. Three other ABs are recognized under this program and are awaiting their first FSMO application in order to complete the recognition process. Two other ABs are expected to apply for recognition.

### Proficiency Testing

The PT Program Field of Proficiency Testing (FoPT) tables have traditionally included drinking water, non-potable water, solid and chemical materials, and whole effluent toxicity. The program has expanded to also incorporate stationary source audit samples and field lead (Pb) testing. Additionally, work is underway with EPA to develop FoPT tables for Cryptosporidium. NELAP, non-NELAP and NEFAP ABs rely heavily on the PT Program as part of their accreditation programs. There are currently two TNI approved PT Provider Accreditors (PTPAs), both perform ongoing monitoring of PT Providers to ensure conformance with the TNI Standards. The PT Program Executive Committee is working with both



## TNI Updates EPA on Accomplishments and Objectives cont.

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PTPAs to develop a mechanism to gather information to evaluate the ongoing effectiveness of the PT Program. Each of the TNI-recognized PTPAs maintains a database to evaluate the performance of each PT Provider. TNI considered establishing a national database to collect PT data that could be used to help establish FoPTs, but concluded such a database was not needed.

### Educational Delivery System

In 2011, TNI started a new process for providing training called the Educational Delivery System (EDS), a comprehensive training system that utilizes multiple face-to-face and web-based training venues. Training courses, workshops, forums, seminars, and on-demand webinar education materials are developed by TNI and its contracted training providers. TNI's training efforts are focused on improving the quality and consistency of laboratory assessments, assisting laboratory quality managers in understanding the accreditation requirements, and providing technical training to laboratory analysts and field professionals. In 2012, TNI provided 27 training events that reached over 1300 individuals. TNI's goal is to move much of this training on-line, and already nine webinars have been recorded and are available for viewing as downloadable webcasts. A number of additional training courses are planned for 2013. To see the current list of courses being provided, go to the TNI EDS webpage (<http://www.nelac-institute.org/eds-home.php>).

### Outreach

In keeping with TNI's vision for truly national environmental programs, we have a number of on-going outreach efforts in addition to our biannual meetings. These include submitting articles for publication in the Water Environment Federation's Lab Solutions newsletter, inviting non-NELAP states to participate in periodic teleconferences of the NELAP Accreditation Council, having representatives at lab and trade organization meetings, and providing training and assistance with regulations such as EPA's latest Methods Update Rule. Also, to ease the somewhat intimidating task of developing documents from scratch, TNI offers Quality Manual and SOP templates for purchase by anyone, but particularly designed for small labs. Additionally, TNI established the Small Laboratory Advocate role to lead a group continuing the long-term commitment begun by the National Environmental Laboratory Accreditation Conference to embrace the small laboratory community and to assist them with accreditation and lab quality issues. During the coming year, TNI will emphasize outreach to encourage the adoption of the NEFAP accreditation for FSMOs by regulatory authorities.



## Update on Standards Development Activity

By Ken Jackson, TNI

The Consensus Standards Development Executive Committee (CSDEC) is in the final stages of revising its *Procedures Governing Standards Development* (SOP 2-100). This is the result of recommendations by a special committee that looked back at the process used for development of the 2009 TNI standards. The committee was complimentary of the expert committees' development of those standards, but the benefit of hindsight showed where further improvements could be made. The CSDEC has been working on these improvements for some time, by conference call and publicly during last winter's Forum on Laboratory Accreditation in Denver. The following is a summary of the revised standards development process.

Prior to any standards development activity, expert committees will actively seek input from stakeholder groups. When an existing standard is being revised, they will also gather from the most recent previous development of the standard, written comments, response-to-comment forms, comments previously placed on hold, tentative interim amendments, and standards interpretation request resolutions. As previously, the committee will develop its **Working Draft Standard** (WDS), and will discuss it publicly. An extra step in the development process will be a **Modified Working Draft Standard** (MWDS), resulting from received input, that will be again taken through the WDS process. When the MWDS has been further revised, the expert committee will present it as a **Voting Draft Standard** (VDS). All TNI members will have the opportunity to vote and their persuasive comments must be resolved for the standard to pass.

An additional stage has been added to the process. After the VDS has passed, it will contain changes resulting from resolution of persuasive comments. By now designating it as an **Interim Standard** (IS), the committee gives the stakeholder community the opportunity to review those changes. This guards against changes that might satisfy the voter whose comment prompted the change, but might now be unacceptable to other voters. Stakeholder groups will be actively canvassed for their comments on the IS, and a Standards Review Council will also study the standard for consistency with other modules/volumes and will make editorial and grammatical corrections. Any substantive changes made to the IS will prompt it to go through the entire voting process that was used for the VDS, and the end product will be the **Final Standard**.

These changes will slow down the standards development process, but past experience has shown delays in adoption of TNI standards because stakeholder groups have later identified unresolved problems. It is anticipated that, by making standards development a more deliberative process, any problems will be identified sooner rather than later. Then the overall time for development of a standard though its adoption should be no slower and may even be faster. A very important aspect of the new process will be the active solicitation of stakeholder groups for their input. To aid this process, it is anticipated that expert committees will invite those groups to attend webinars presented at various stages of standards development.

Three expert committees are currently developing standards. The membership previously approved the Field Activities committee's Voting Draft Standard for both of its volumes, and the voting resulted in the committee making changes to satisfy persuasive comments from the voters. It is proposed to then present it as an Interim Standard for further voting. At the Environmental measurement Symposium in San Antonio in August, the Chemistry Committee will discuss the comments received during recent voting on its VDS for Calibration (Module 4 of the Environmental Sector Laboratory Volume). The Laboratory Proficiency Testing Committee has almost completed its WDS on all its modules and volumes and plans to also make presentations for discussion in San Antonio.

### PT Committee Plans Free Webinar to Discuss Working Draft Standards

The PT Committee will hold a free Webinar on July 18 from 1:00 to 2:00 PM EDT to present the proposed changes to the PT Standards. You must register to attend by going to <https://www.regonline.com/ptwds>.



## EPA's Announcement of Competency Policy for Assistance Agreements

*By Lara Phelps, USEPA*

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As published in the Federal Register on April 29, 2013 (78 FR 25079-01, 2013 WL 1786743 [F.R.]), the Environmental Protection Agency's Forum on Environmental Measurements (FEM) is implementing an Agency-wide policy for organizations that will generate or use environmental data under certain Agency-funded assistance agreements. Such organizations will be required to submit documentation of their competency, i.e., the demonstrated ability to apply knowledge and skills, prior to award of the agreement, or if that is not feasible, prior to beginning any work involving the generation or use of environmental data under the agreement. The policy was originally approved on December 12, 2012 by the Science Technology Policy Council and took effect on May 15, 2013. It applies to competitive and non-competitive assistance agreements expected to exceed a total maximum value of \$200,000 in federal funding. The policy will be reviewed within two years after its effective date and will either be reissued without revision, reissued with revisions, or rescinded.

Comments or questions should be sent to Lara Phelps at [phelps.lara@epa.gov](mailto:phelps.lara@epa.gov). A copy of the full policy, a list of frequently asked questions (FAQs), and a schedule of webinars are available on the FEM's website at [http://www.epa.gov/fem/lab\\_comp.htm](http://www.epa.gov/fem/lab_comp.htm). Additionally, the TNI Advocacy Committee is sponsoring a special session on Wednesday afternoon of this summer's Environmental Measurement Symposium to discuss the benefits of competency in environmental sampling and measurements.



## Update on Non-Governmental Accreditation Body Working Group

*By Carol Batterton, TNI; Stephanie Drier, Minnesota DOH; and  
Steve Arms, Florida DOH*

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The Non-Governmental Accreditation Body (NGAB) working group was chartered by the TNI Board of Directors to develop SOPs and Policies to be used by TNI to approve non-governmental accreditation bodies to grant laboratory accreditations in conformance with the applicable TNI standards, and to assure that the NGAB is capable of managing an accreditation program in a consistent, uniform manner. The working group plans to present recommendations for the evaluation and recognition process at the summer meeting in San Antonio. They have been conducting a side by side comparison of the NELAP and NEFAP Evaluation SOPs and are preparing draft language for discussion. The NGAB discussion will take place on Thursday, August 8, from 9:00 am to 12:00 pm.

The activities of this group are particularly relevant given recent developments in Minnesota and Florida. The Minnesota Department of Health proposed legislation to allow the department to use independent assessors to perform routine laboratory assessments. The statutory changes were approved by the legislature and signed into law by the Governor, effective May 22, 2013.

Specifically, Chapter 144.98 of the Minnesota Statutes was amended to:

1. Establish a selection committee appointed by the commissioner of health;
2. Direct the selection committee to draft and adopt procedures and an application for determining a list of approved laboratory assessors and assessment organizations;
3. Provide a list of recommended assessors to the commissioner of health for approval and publication on the MNELAP webpage.

Although the amended statutes do not prohibit the employees of the Department of Health from performing onsite assessments, the law provides guidelines for when employees should perform these activities (i.e. enforcement) and requires laboratories to contract directly with individuals or organizations that provide the assessment services.

The Florida Department of Health is taking a parallel approach as a result of departmental reorganization and subsequent legislation that amended Chapter 403.863 of the Florida Statutes to require the contracting of assessments. The department has approved applications from six potential assessment providers and, as of this writing, is in the contract negotiation stage. These contracts will establish criteria for qualifying competent assessors according to TNI and EPA drinking water requirements, but similarly to Minnesota, laboratories will be responsible for obtaining assessment services from one or more of these providers and to pay the providers directly through their own agreements.

A logical progression in these outsourcing efforts potentially lies in "piggy-backing" of assessments for both state and NGAB accreditation purposes and ultimately in state accreditation bodies being able to grant secondary recognition of an NGAB's TNI-compliant laboratory accreditation. The products of the NGAB working group are expected to facilitate this in support of TNI's vision of a true national accreditation program.



## Special Session on the Importance of Competence in the Environmental Measurement and Monitoring Community

*By Steve Arms, Florida Department of Health*

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TNI's Advocacy Committee is organizing a special session that will focus on the benefits of accreditation to various stakeholder groups in the environmental measurement and monitoring community. This session will be Wednesday from 1:30 to 5:00 pm. The topics and speakers are listed below.

- **Public:** Accreditation promotes confidence that environmental decisions are based on reliable, authentic data.
  - Ruth Forman, Environmental Standards, Inc.
- **Organizations:** Accreditation promotes ongoing self-evaluation and continuous improvement and provides an effective system for accountability and enhances its reputation.
  - Kim Watson, Stone Environmental
- **Government:** Accreditation serves as a basis to ensure that environmental monitoring data are adequate for their intended purpose.
  - Lara Phelps, USEPA, Office of the Science Advisor
- **Data Users:** Accreditation provides assurance that the laboratory has been evaluated and has met accepted standards established by and with the profession
  - Cathy Humphreys, TCEQ, Office of Legal Services
- **Profession:** Accreditation advances the field by promoting uniform accepted standards of practice and advocating rigorous adherence to these standards.
  - Nan Thomey, Environmental Chemistry, Inc.



## TNI Educational Delivery System Update

By Ilona Taunton, TNI

TNI's Educational Delivery System continues to grow. Already this year the following webinars were held:

- ◆ Defining Organizational Responsibilities
- ◆ Method Selection and Validation
- ◆ Fundamentals of Ion Chromatography
- ◆ Developing the Quality Manual
- ◆ Documents and Document Control
- ◆ Perchlorate and Bromate Analysis in Various Water Matrices Using Suppressed Ion Chromatography

A number of additional training courses are in development and/or scheduled to be offered in 2013. To see the current list of courses being provided, go to the TNI Educational Delivery System webpage (<http://www.nelac-institute.org/eds-home.php>). You can also access an application form from this webpage, if you would like to provide a training course.

TNI has begun issuing Continuing Education Units (CEUs) in conjunction with these courses in accordance with the international recognized standard ANSI/IACET 1-2007, Standard for Continued Education and Training.

### ***Want to Hold A Training Event?***

TNI is building a curriculum of training courses such as those described above that can be provided by various trainers at your meeting site. If you have any interest in having TNI work with your organization to put on such training, please contact Ilona Taunton at [ilona.taunton@nelac-institute.org](mailto:ilona.taunton@nelac-institute.org).

### **Upcoming Training Events**

July 12  
Records and Recordkeeping

July 29  
Assessing Organic Chemistry

July 31  
Basic Assessor Training

August 9  
NEFAP As Seen Through  
the Fog

October 28  
Basis Assessor Training



## Regulatory Update

By Jerry Parr, Catalyst Information Resources

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*This article was prepared to provide TNI members information about events at the national level that may be of some interest. This information covers the period of March 1, 2013 through June 24, 2013*

### EPA Publishes New Statement of Work for Organics

EPA's Contract Laboratory Program has published SOM 02.0 that contains methods for the isolation, detection, and quantitative measurement of trace volatile, low/medium volatile, semivolatile, pesticide, and Aroclor target compounds in water and soil/sediment environmental samples. EPA indicated the SOW is extensively revised from the previous version. <http://www.epa.gov/superfund/programs/clp/som2.htm>

### Errata Sheet for Standard Methods

An Errata Sheet has been published to correct errors discovered in the 22nd Edition of *Standard Methods* that affects the following sections: 1020, 3500-Cr, 4020, 4500-Sulfite, 5210, 7020, 7110, 7500-Sr, 9020, 9221, 9222, 9230. [http://www.standardmethods.org/PDF/22nd\\_Ed\\_Errata\\_3\\_22\\_13.pdf](http://www.standardmethods.org/PDF/22nd_Ed_Errata_3_22_13.pdf)

### Revised Total Coliform Rule – Final Rule

On February 13, 2013, EPA published in the Federal Register the revisions to the 1989 TCR. The rule:

- Requires public water systems that are vulnerable to microbial contamination to identify and fix problems; and
- Establishes criteria for systems to qualify for and stay on reduced monitoring, which could reduce water system burden and provide incentives for better system operation.

<http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/upload/rtrcwebinar41013-1-2.pdf>

### DOD Releases Final Draft of QSM Rev 5

The Department of Defense (DoD) Environmental Data Quality Workgroup (EDQW) and the Department of Energy (DOE) Consolidated Audit Program (DOECAP) Operations Team developed the Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.0. The QSM provides baseline requirements for the establishment and management of quality systems for laboratories performing analytical testing services for the DoD and the DOE.

<http://www.denix.osd.mil/edqw/upload/QSM-DOD-DRAFT-FINAL-052313.pdf>

### EPA Approves 84 Methods for Drinking Water Analyses

EPA has approved EPA method 524.3, 79 Standard Methods from the 22<sup>nd</sup> edition, 3 ASTM methods, and one vendor developed method for coliphages. (3/31/13; 78 FR 32558) <http://www.gpo.gov/fdsys/pkg/FR-2013-05-31/pdf/2013-12729.pdf>

### EPA Publishes Method 524.4 for Volatile Organics

This method was approved for drinking water analyses as part of EPA's approval of 84 methods on May 31. The method is an update of Method 524.3, but uses nitrogen as the purge gas.

<http://water.epa.gov/scitech/drinkingwater/labcert/upload/815R13002.pdf>

### EPA Proposes Changes to NPDES Regulations for Power Plants

EPA has proposed to revise the wastewater regulations that apply to discharges of pollutants found in the following waste streams from electrical power plants: FGD wastewater, fly ash transport water, bottom ash transport water, combustion residual leachate from landfills and surface impoundments, nonchemical metal cleaning wastes, and wastewater from flue gas mercury control (FGMC) systems and gasification systems. As part of this proposed rule, EPA provided notice of standard operating procedures (SOPs) for the analysis of FGD wastewater using collision cell technology in conjunction with EPA Method 200.8. The proposed rule frequently states: "Compliance with the effluent limitations must reflect results obtained from sufficiently sensitive analytical methods." The regulation would require analyses of priority pollutants contained in chemicals added for cooling tower maintenance with "no detectable amount" as the regulated limit. (6/7/13; 78 FR 34431) <http://www.gpo.gov/fdsys/pkg/FR-2013-06-07/pdf/2013-10191.pdf>



**Special Session on Gaining EPA Acceptance  
for New Methods, Method Modifications and  
the ATP Approval Processes. (Air, SDWA,  
CWA, and Solid Waste)**

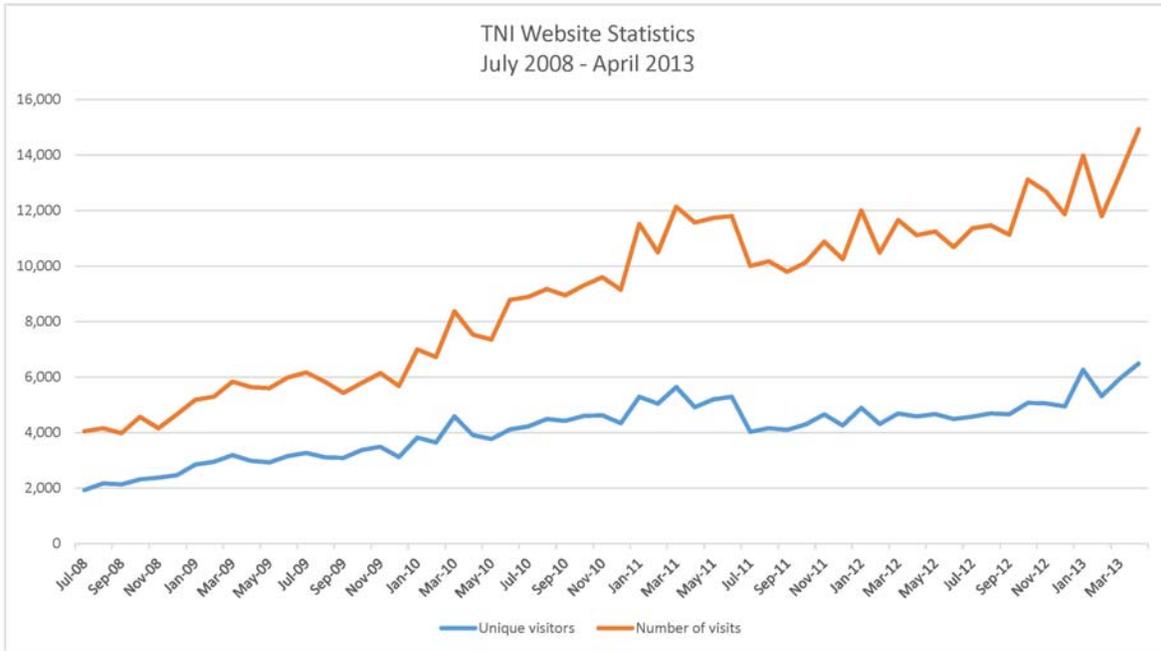
*By Ed Askew, Askew Scientific Consulting*

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An Ad-hoc meeting will occur in San Antonio on Wednesday, August 8 from 1:30 to 5:00 pm. This meeting that will cover experiences of the public/private stakeholders with EPA's approach to approval of new methods, method modifications and alternate test procedures (Tiers 1 through 3) and what can be improved upon by the agency. The meeting will be broken up into two sessions. The first session will focus on participants' real life experiences with the EPA process over the last few years. This will include an open discussion among the participants. The second session will focus on development of a white paper outlining the participants' concerns with the current EPA approach and improvements recommended.



### TNI Website Statistics





## Member Spotlight: Maria Friedman

*This quarter's Member Spotlight is an Question and Answer session with TestAmerica's Quality Assurance Manager **Maria Friedman** on coming to America, education and hard work to achieve success, and Chinese food.*

### **Growing up in the Philippines in a poor community without an active father drove you to work hard and to pursue your dreams. What were your goals?**

The rules for poor families in the Philippines were very different than the rules for wealthy families. I knew from an early age that I needed to work hard to get money for my family. I used education and hard work as the tools to succeed and accomplish my goals.



### **Your degree is in Chemical Engineering. How did you decide to obtain this degree?**

I went to college on a scholarship and initially wanted to be a teacher or a journalist, but the caste system in the Philippines didn't allow for many opportunities. As a result, I decided to seek out a degree in economics, but there was limited enrollment room to pursue this degree. My uncle suggested chemical engineering, which had just opened enrollment opportunities to women. I received my B.S. degree and became a board certified chemical engineer.

### **In your quest to leave behind oppression, you came to America with \$62.00 in your pocket and the help of an Aunt. What did you do next?**

I quickly found work as a bank teller and a part-time job at the gift shop in the Biltmore Hotel. The people were wonderful and I made several friends at each job; however, the pay was not meeting my living expenses. I purchased 50 envelopes and started mailing letters to prospective employers. On the last envelope, I received a response and a job offer as a food analyst performing extractions and HPLC analysis. After working hard as a food lab analyst, I decided to look for more challenges and higher pay. I then began work at Enseco Incorporated as an air analyst.

### **You have worked in the Environmental industry for more than 22 years. How did you move from analyst to the Quality Assurance Manager at a large environmental laboratory? Are there challenges in this role?**

One day the lab manager asked me to perform the role of project manager. In the role, I was comfortable with both the science and the client interactions. I then became the air laboratory manager, and then through laboratory mergers I became the client services manager. During this time, I also worked to obtain my Masters in Business Administration from the University of California, Irvine. With my education and experience, I was then appointed to improve the quality system of the small laboratory. Today, I am the Quality Assurance Manager for TestAmerica and take responsibility for managing four employees and implementing a quality system for a full service laboratory. I love learning new things and seeking out new challenges. I love the challenge of respecting business needs while incorporating a quality culture within the laboratory.

### **When did you first get involved with TNI?**

My first meeting was the 2005 Chicago meeting, which I attended to learn more about the NELAC Standards and implementation in the laboratory. I attended several of the meeting sessions and found the most interest in the information technology committee.

### **You are the current chair of the SSAS expert committee. What is the SSAS?**

The Stationary Source Audit Sample (SSAS) Expert Committee is comprised of regulators, experts in stack emissions science, and audit sample providers. The committee was established at the request of EPA to help privatize the air emission audit samples, because EPA was going to stop providing emitter audit samples. My first order of business was to learn Robert's Rules of Order in order to conduct effective weekly committee meetings. In a one year timeframe, the committee drafted and adopted standards for Providers, Provider Accreditors, and Participants and began the development of the Central Database for audit sample tracking.



## Member Spotlight: Maria Friedman

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### Why such a tight timeline?

The EPA was set to stop providing emitter audit samples by 2010, and TNI needed to set the standards for privatization of these samples. On June 16, 2013, the USEPA Rule became mandatory and any company emitting into the atmosphere must submit plans to their regulators for purchase and use of audit emission samples from approved providers.

### What city would you love to see host the next TNI meeting?

I loved Savannah and would love to see the meeting return to Savannah or any city in Massachusetts.

### Am I right in saying you are currently working towards your Green Belt in Lean Six Sigma?

Yes, my Green Belt will be completed by 2013 and my goal is to eventually obtain my Master Black Belt. I love learning new processes and this education is very useful for incorporating lean activities in the laboratory while meeting or exceeding TNI Standard requirements and regulations.

### What do you do for fun?

My husband and I do not have children of our own, but I am helping my nieces and nephew who are living and going to school in the Philippines. It is fun and rewarding to provide them support and more opportunities to help them succeed in their country. I also love to travel, either locally in California or to other countries in the world. Recently, I have been tent camping around California; I just decide to travel in a direction and then make a reservation to stay only if I wish to explore more in that area. My next planned trip will be a stop in Hong Kong on my way to the Philippines, because I hear they have the best Chinese food!

**Please note:** Maria will be presenting information regarding the Stationary Source Audit Sample Program's Central Database at the National Environmental Monitoring Conference in San Antonio, Texas on Tuesday, August 6, 2013. [The 2013 NEMC Technical Program](#)