

SPRING 2025

THE INSTITUTE REVIEW

A Publication of The NELAC Institute

2025 Environmental Measurement Symposium

BUILDING A QUALITY CULTURE AS THE FOUNDATION FOR RELIABLE DATA

The 2025 Environmental Measurement Symposium (EMS), which is the combined meeting of the Forum on Environmental Accreditation and the National Environmental Monitoring Conference (NEMC), will be held August 4—8 at the Hyatt Regency in St. Louis, MO. The theme of this year's conference is ***"Building a Quality Culture as the Foundation for Reliable Data"***. Some of the highlights for the Symposium include:



- A special half-day general session focused on the conference theme;
- A special session featuring updates from EPA program offices;
- 134 oral and poster presentations in the NEMC portion of the Symposium on a variety of cutting edge environmental monitoring issues;
- Meetings of TNI Committees to further TNI efforts on environmental laboratory accreditation, proficiency testing, and accreditation of field sampling and measurement organizations;
- A public meeting of the Environmental Monitoring Coalition;



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Environmental Measurement Symposium cont.

- An exhibit program showcasing the latest innovations in environmental monitoring;
- An Innovative New Technology Showcase;
- Five vendor lunch presentations;
- A keynote presentation on Non-Targeted Analysis; and
- A half-day workshop on laboratory cybersecurity issues.
- The first TNI examination to become a certified Laboratory Quality Management Systems Professional

All NEMC sessions and TNI meetings are open to all registered attendees. Attendees have the ability participate in-person at the Symposium or view a recorded version that will be made available shortly after the presentation.

NEMC TECHNICAL PROGRAM

The NEMC Technical Program is organized into 21 breakout sessions. The titles of the presentations, abstracts, and authors can be found at the [EMS website](#).

- Air Monitoring, Methods, and Technology
- Analyzing Microplastics in the Environment
- Automation & Innovation for Sample Preparation – 2 sessions
- Best Management Practices for Environmental Laboratories
- Community Science/Research
- Crafting Consensus Methods for Environmental Sampling and Measurement
- Drinking Water – 2 sessions
- Emerging Environmental Applications for High Resolution Mass Spectrometry
- Ensuring Reliable Data
- Environmental Forensics
- Innovations in Microbiology
- Innovative Solutions for Reducing Methylene Chloride
- Laboratory Informatics
- Metals Analyses
- New Organic Monitoring Techniques
- Optimizing Laboratory Operations
- Per- and Polyfluoroalkyl Substances (PFAS) in the Environment – 2 sessions
- Sustainability in the Lab: Navigating an Evolving Societal Expectation

TNI PROGRAM

The TNI sessions are meetings of 12 TNI committees listed below, an Assessment Forum, a Mentor Session, and a Field Sampling and Measurement Session. Details of the TNI meetings can be found at the [EMS website](#).

- Chemistry Expert Committee
- Credentials Committee
- Laboratory Accreditation Body Expert Committee
- Laboratory Accreditation Systems Executive Committee
- Laboratory Quality Management Systems Expert Committee

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Environmental Measurement Symposium cont.

- Microbiology Expert Committee
- NELAP Accreditation Council
- Proficiency Testing Program Executive Committee
- Proficiency Testing Expert Committee
- Radiochemistry Expert Committee
- Training Committee
- Whole Effluent Toxicity Expert Committee

INNOVATIVE NEW TECHNOLOGY SHOWCASE

Tuesday, August 5, 2024; 3:30 – 5:00 pm CDT

For the ninth year in a row up to twelve (12) organizations will showcase their innovative new technologies, including sensors, apps, personal monitoring devices, and others. There will be opportunities to ask questions of the vendors and networking with attendees, including regulators, vendors, consultants, scientists, field personnel and others.

EXHIBIT PROGRAM

Meet with instrument manufacturers, laboratory suppliers, LIMS providers, and other laboratory service providers. See the latest developments in measurement technology, proficiency testing, sample preparation, and laboratory automation at the Exhibit Hall from August 4-6.

SPECIAL WORKSHOP ON LABORATORY RECORDS MANAGEMENT AND CYBERSECURITY

This Friday workshop focuses on the importance of data classification and security in laboratory environments. It covers best practices for ensuring data integrity, traceability, and defensibility, emphasizing the need to classify various types of laboratory data, including client, employee, business, quality, and laboratory records. The presentation also addresses common issues related to data storage, backup, and security, highlighting the risks associated with cyber threats and the importance of implementing robust security measures. By understanding and mitigating these risks, laboratories can protect their data, maintain credibility, and ensure compliance with regulatory standards.

EXAMINATION TO BECOME A CERTIFIED LABORATORY QUALITY MANAGEMENT SYSTEMS PROFESSIONAL

A proctored examination will be held on August 8, 2025 in conjunction with the 2025 Environmental Measurement Symposium to allow an individual to become a certified Laboratory Quality Management Systems Professional. The examination will consist of 150 questions covering the topics detailed in the [Knowledge, Skills, and Abilities \(KSA\) document](#).

Summary of the 2025 Forum on Laboratory Accreditation

By Jerry Parr

The 2025 Winter Forum on Environmental Accreditation was held February 3-6, 2025 in Jacksonville, FL. Presentations from all of these sessions are on the [TNI website](#) under [Training and Meetings/Past Conferences](#).

TNI COMMITTEE MEETINGS

Below is a summary of TNI committee meetings at the Forum.

Advocacy Committee

The committee reviewed their accomplishments over the year including:

- Publishing two newsletters,
- Developing an outreach plan, and
- Developing a new White Paper on how the lack of a strong Quality Management System results in faulty data.

The committee then reviewed the activities of the week for potential Advocacy efforts. Based on feedback from the attendees, the committee agreed on the following:

- Create a half-day session on digital records and cybersecurity;
- Topics for articles or other inclusions for the Spring TNI Newsletter;
- the new Technical Specialist language;
- any relevant standards development activities;
- Summary the work of the Consumables Task Force;
- Research language on suspension from previous NELAC standards;
- Explore the creation of a Jack Farrell Analytical Excellence scholarship to support the credential's initiative; and
- Pursue using PT Providers as ambassadors for some non-NELAP states.

Chemistry Expert Committee

A number of Standard Interpretation Requests (SIR) both valid and non-valid, were reviewed and discussed. These included a clarification that surrogates are not required if a method does not require them, guidance on selecting a “mid-point” of a calibration curve, and use of preservatives in method blanks and laboratory control samples. All responses are posted on the [SIR webpage](#). Eleven of the SIRs discussed were deemed not valid as the committee believes the language in the standard is clear.

The committee then reviewed proposed changes to the chemistry module, focusing on detection limits, demonstration of capabilities, calibration for ion selective electrodes and instruments that have “built-in” calibrations, and elements of quality control and solicited comments. The committee anticipates the posting on EL V1 M4 prior to the summer meeting and hopes to finalize their new Standard shortly thereafter.

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Summary of the 2025 Forum on Laboratory Accreditation cont.

Credentials Committee

The committee provided an update on the effort to establish a credential for a Certified Quality Management System Environmental Laboratory Professional.

Field Activities Expert Committee

The committee chair announced that the revisions to Volume 1, the FSMO Standard, were completed. The changes include incorporating language from the 2017 versions of ISO/IEC Standard 17025 and adding in more specificity to the FSMO requirements. The chair then reviewed other 2024 accomplishments, including developing a draft Standard Volume 2 and working on a number of training courses. In 2025, the committee plans to:

- Finalize Volume 2 of the Field Standards,
- Develop a training course on the new FSMO Standard, and
- Develop implementation documents and tools such as a Gap Self Analysis tool, FSMO Assessment Checklist, and a summary of changes between the 2014 and new Field Standards.

The committee chair then reviewed presentations given in 2024 and training courses that were provided. The remainder of the meeting was devoted to reviewing the proposed changes to the Volume 2 Standard in detail and soliciting feedback from attendees.

Laboratory Accreditation Systems Executive Committee

The Committee Chair presented the mission and objectives of the committee, then discussed the process of reviewing SIRs and the committee's role in reviewing modules of the standards

Microbiology Expert Committee

The committee briefly summarized its involvement in SIR, including a fruitful discussion on a non-valid SIR that the committee used to steer discussion on its Draft Standard. The Draft Standard was presented with a focus on the changes that have been made from the 2016 Standard. These changes were presented with the original text, the suggested change, and the justification. Audience input was sought on each item. Certain of the proposed changes resulted in some lively banter and suggestions for further changes were captured for the Committee's consideration.

NEFAP Executive Committee

The Committee reviewed their 2024 accomplishments, which included:

- A PFAS Workshop,
- Second Annual Sampling Conclave,
- Presentation regarding NEFAP at three conferences,
- Two field training courses and one in development, and
- The inclusion of NEFAP accreditation as an option for samplers in the EPA Lead Program.

The Committee also shared their 2025 goals, which include:

- approving the new Volume 1 Field Standard and setting an effective date,
- holding a Third Annual Sampling Conclave and two virtual field workshops,

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Summary of the 2025 Forum on Laboratory Accreditation cont.

- continuing development on training courses, and
- completion of a position paper.

The Committee discussed opportunities to introduce NELAP ABs to options on ways to work with NEFAP and use the Field Standard. In addition, marketing ideas for NEFAP and possible topics for the upcoming Field Conclave and workshops were discussed.

NELAP Accreditation Council

The Accreditation Bodies (AB) present discussed upcoming changes to their programs, then the Chair invited the LAB Expert Committee Chair to talk about the ongoing revision of V2M1. While the ISO language in ISO/IEC 17011 has changed, the requirements are mostly the same, LAB made three requests to the Accreditation Council:

- Read the current draft for clarity and implementability, and for anything that might have been overlooked and should be added.
- Avoid SIR – think about clarity of the language as offered.
- Are the requirements in the current draft important to the quality of accreditations.

The Council is piloting a new networking and training event for NELAP state assessors, using a round-table format with small groups and rotating partners throughout the year in quarterly sessions. If the pilot shows value to the effort, third party assessors may be included in the future.

Participants discussed possible ways to improve the timeliness and effectiveness of NELAP evaluations and then moved to discussing the shift from Technical Manager to

Technical Specialist. Existing state regulations concerning Technical Managers may make such a change difficult, and the AB program managers committed to providing QMS Expert Committee with details of relevant state regulations. Lastly, a question from the audience led to discussion about how NELAP can better use NGAB services, but the absence of legal enforceability as well as the requirement that only states can make drinking water accreditation decisions makes mutual recognition of NGAB accreditations unworkable at this time.

PT Expert Committee

The committee reviewed the Volume 3 (requirements for PT Providers) and Volume 4 (requirements for PT Provider Accreditors). Volume 4 was completely rewritten to closely resemble the ISO/IEC 17011 section order. The language in Volume 4 only contains the additional requirements not contained in ISO/IEC 17011. The committee then went through the draft language in detail and solicited feedback from the attendees. The proposed revisions for Volume 4 will be posted for comment prior to the summer meeting and will also be presented for public comment at that meeting. Volume 3, if not posted prior to the summer meeting, will also be available for public comment.

PT Program Executive Committee

The committee reviewed accomplishments during 2024, including:

- Developed and approved FoPT limits for PFAS in Drinking Water (DW);
- Corrected the Mercury PTRL for non-potable water from 0.9 to 2.1 ug/L;
- Revised Nomenclature and CAS # for Chlordane and provided a letter to EPA program offices;
- Completed a TNI Position Statement on the value of Proficiency Testing;
- Worked with PT Expert Committee on Volumes 3 & 4;

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Summary of the 2025 Forum on Laboratory Accreditation cont.

- Initiated a 10-year review of the acceptance limits for chemistry PT;
- Initiated a joint effort with the Whole Effluent Toxicity (WET) Committee to revise the WET FoPT tables; and
- Initiated an effort to revise how PT acceptance limits are determined.

The committee then discussed their plans for 2025, including:

- Continue 10-year review of FoPT limits;
- Continue working to resolve reporting of uncertainty with Radiochemistry PT results;
- Conduct Proficiency Testing Provider Accreditor (PTPA) evaluations;
- Continue working with Advocacy to be inclusive of non-TNI Abs; and
- Support the NELAP AC in resolving method codes in LAMS.
- Continue to work with PT Expert Committee on standard revisions.
- Explore the use of technology-based FoPT tables.

There was consensus among the attendees that PT samples based on sample preparation would not be useful.

Quality Management Systems Expert Committee

The Committee reviewed their accomplishments since the last meeting in January 2024. These accomplishments included completing the review of Volume 1 Module 2 Sections 4-8, responding to and on the use of matrix duplicate in the sample batch/analytical run, and starting on the review of definitions in Section 3.

The Committee reviewed changes of interest to the DRAFT Standard and asked for input on these changes including:

- Quality Specialist (formerly Quality Manager) updates
- Support equipment update and new table format
- Sampling & Subcontracting field sampling work
- Reference Materials & Reagents (purchased vs prepared
- Data Integrity prohibited practices list was moved to Annex C
- Quality Manual layout
- Test Method instruction documents (Written Procedures/SOPs) staying in Section 8.2
- Actions to address risks and opportunities
- Internal audit requirements
- Technical Specialist

The Committee worked on Section 3 – Definitions. A list of possible definitions to remove from Module 2 was presented. The Committee then spent the remainder of the meeting reviewing and updating the remaining definitions in Module 2. A survey has been sent to each of the Technical Modules (1, 3-7) for their input on definitions to be removed.

Radiochemistry Expert Committee

The Committee reviewed their 2024 accomplishments, which included:

- presenting an introductory radiochemistry class at the Forum in Columbus, OH;
- providing input on various TNI initiatives (e.g., internal audit, technical specialist qualifications, analytical (technical) disciplines workgroup, and providing feedback on Module 2 definitions); and
- exploring options for FoPT tables for non-DW matrices.

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Summary of the 2025 Forum on Laboratory Accreditation cont.

The Committee also shared their 2025 goals, which include:

- development of more radiochemistry training,
- review of Radiochemistry method codes, and
- continued exploration of options for non-DW FoPT tables.

The Committee then discussed future training topics, technical specialist requirements, method codes and provided time for open discussion.

Training Committee

The Committee reviewed their 2024 accomplishments, which include:

- continued social media presence on LinkedIn;
- presentation of 9 new courses and 3 Basic Assessor classes;
- development of a consistent course description template that was key to the new Educational Delivery System (EDS) tab on the TNI website;
- implemented a new data integrity component to the training class sign-up process; and
- incorporated the Assessment Forum and Mentor Sessions to its Charter.

The Committee also shared their 2025 goals which include

- development of a new survey process for courses,
- marketing of training courses and need for instructors for new courses,
- completion of a review of current training materials to look for needed updates,
- assisting in new course development as needed and
- Periodic review of the new EDS webpage.

The Committee discussed the Request for Proposal (RFP) process and ideas for new courses, presented a training on How to Become a TNI Trainer, and then had an open discussion on ways to improve the training program.

WET Expert Committee

The committee chair walked through the major and most of the lesser upgrades that will be offered when the V1M7 Draft Standard is offered for public comment later in February. Key updates are as follows:

- Sections renumbered and definitions expanded,
- New §4 for Technical Specialist Qualifications added,
- Method Selection and Validation in §5 & §6 clarified and expanded,
- Demonstration of Capability (DOC, now §7) expanded to be explicit about requirements for an analyst initial DOC,
- Change “Should” from Method Manuals to “Musts” in Technical Requirements (now §8) with added clarifications,
- Include explanatory “Notes” in select areas, and
- Explain differences from Analytical Testing within Module.

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Summary of the 2025 Forum on Laboratory Accreditation cont.

Special Sessions

In addition to TNI committee meetings described above, the following other sessions were held:

- TNI Annual Report,
- Mentor session on Method Validation and Verification,
- Assessment Forum Focusing on Digital Records and Cybersecurity,
- Analytical Disciplines and Technical Specials,
- Launch of the New Educational Delivery System and Credential Initiative, and
- Report from the Consumables Task Force.

Each of these sessions is summarized below.

TNI Annual Report

Every year at the winter meeting, TNI provides an annual report, briefly summarizing all activities that occurred the previous year and planned activities for the current year. After the conference, the report is turned into a document and posted on the TNI website. The Annual Report is expected to be published by mid-June. The highlights of this presentation included:

- An update on all Standards Development activities;
- A summary of the activities of TNI's field activities, including a workshop on PFAS in field blanks and the second annual Field Conclave;
- A summary of the activities of TNI's laboratory accreditation activities,; including adding PFAS in drinking water and publishing the answers to six SIRs;
- A summary of the activities of TNI's proficiency testing activities including developing FoPT tables PFAS in drinking water, updating the radiochemistry FoPT tables, and initiating a 10-year review of all chemistry FoPT tables;
- A review of the eight new training courses provided in 2024 and a list of potential new courses; and
- A summary of the 10 presentations given at national and regional meetings.

Mentor Session on Method Validation and Verification

Section 7.2 of the 2017 version of ISO/IEC 17025, Selection, verification, and validation of methods, represents a complete rewrite on this topic with a focus on verification versus validation. This Mentor Session was divided into two segments, one providing an overview and the second focusing on documentation and records.

In the first segment, Jerry Parr provided a comprehensive overview of Method Verification and Method Validation, highlighting their key concepts and differences. The session covered what is necessary for each process, detailing the requirements for method verification compared to those for method validation. Jerry also clarified the situations in which method verification alone is sufficient and when method validation is required. The presentation was followed by an interactive activity to enforce the concepts discussed, including the purpose of and differences between Validation and Verification.

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Summary of the 2025 Forum on Laboratory Accreditation cont.

In the second segment, Tony Francis shared detailed examples of documentation and record-keeping practices related to method verification and validation. He presented real-life scenarios illustrating how to properly document method modifications and demonstrate that the modified method is suitable for its intended use. Additionally, Tony provided examples of client notification and approval processes for validated method modifications in accordance with TNI and ISO guidelines.

These two presentations will be converted into downloadable webcasts in the Conference Learnings category on the TNI Educational Delivery System webpage.

Assessment Forum Focusing on Digital Records and Cybersecurity

The Assessment Forum contained two presentations, one on the security of electronic records and the second on cybersecurity in general.

The electronic records presentation focused on providing answers and exchanging ideas and approaches to answering these questions:

- What are the different types of electronic records?
- What is the driver that encourages different types of electronic records management?
- What types of security exist for electronic records?
- How are electronic records connected to all other types of laboratory records as a tool for traceability?
- What are concerns or approaches to cybersecurity?

The second presentation provided a case study of a water utility in responding to a Cybersecurity attack starting with immediate response, steps taken to ensure continued services to meet regulatory requirements and steps taken to ensure preparedness for anything that could potentially happen in the future.

Special Session on Analytical Disciplines and Technical Specials

The 2025 draft Module 2 for Quality Management Systems has replaced Technical Manager with Technical Specialist and contains this language:

The laboratory shall have a technical specialist responsible for each analytical discipline that corresponds with its accreditations.

Various TNI committees have been exploring how generally or how specifically these disciplines need to be defined. This session summarized the activities to date to prepare attendees for the more detailed discussions to be held at various committee meetings later in the week.

Launch of the New Educational Delivery System and Credential Initiative

On February 6, 2025, TNI launched a new website, The TNI educational Delivery System (EDS), at: <https://eds.nelac-institute.org>. This new website has significant improvements in how downloadable training courses (webcasts) can be taken, including the ability to create a unique profile to document courses taken, automatically grad exams, and download Certificates of Attendance and Completion. A new search tool allows individuals to search for courses by instructor, description, category, or title. In addition, this new EDS webpage is integrated with TNI's Credential Initiative and allows individuals to apply for a digital badge and download their badge after successful completion of an exam.

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Summary of the 2025 Forum on Laboratory Accreditation cont.

A half-day workshop was held on February 6 that covered the following topics:

- Overview of the TNI Credential Initiative
- Education and Experience Path
- Digital Badge Path
- Maintaining Certification
- The Education and Experience Process
- Submitting an Application
- Fees
- Taking the Exam
- Retesting
- Certificates and the TNI Database
- The Digital Badge Process
- Submitting an Application
- Fees
- Scheduling
- Taking the Exam
- Retesting
- Digital Badges and Certificates
- Creating Your Own Webpage
- Account Information
- My Credentials
- My Webcasts
- My Digital badges
- Example of a Digital Badge (Data Integrity)
- Knowledge, Skills, and Abilities
- Suggested reading
- Available Training Courses
- Certified Professional Handbook
- Code of Conduct
- Complaint Process
- Non-Discrimination
- Use of the Credential

This workshop was recorded and will be posted as a free downloadable webcast.

Consumables Task Force

In 2020 the TNI Board of Directors authorized a group, the Consumables Task Force, to *“develop essential criteria enabling users to ensure that products and support services meet a minimum quality expectation, are in accordance with appropriate applicable standards, and can provide documentation that represents an adequate level of traceability”* with the following objectives:

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Summary of the 2025 Forum on Laboratory Accreditation cont.

- Understand and identify the use of the term “critical consumables, services and supplies.”
- Define the evaluation criteria necessary to ensure distributors, manufacturers, and service providers supply the documentation necessary to meet the standard and traceability.
- Provide expanded and detailed information related to documentation necessary for meeting the requirements of the standard.
- Determine the best use of the product of the task force as it relates to improving compliance with Section 4.6 of Module 2 of the TNI environmental laboratory standard.

The Task Force has completed this effort and in Jacksonville presented a draft guidance document on this subject. In the document, Critical Supplies and services are defined as: *“A supply, product, or service that directly affects the analytical result, therefore requiring traceability and verification to ensure data that is method compliant, legally defensible, and of known documented quality.”*

The consensus of the Task Force is that those items and or services considered to be “Critical” should be obtained with a supplier Certificate of Accuracy or Authenticity. Said certificates, assuring the quality of the product or service, provide the only evidence necessary to meet the requirements of § 4.6. These certificates would support excellence in quality similar to, if not more so than, simple statements such as Class A glassware.

The key for effective use of Certificates of Authenticity is to ensure that the contents of the certificate are presented consist with ISO 33401:2024-01. ISO Guide 33401 is a document that was originally developed for reference materials and provides a relevant framework for recording information related to supplies and services used in testing laboratories.

The Task Force requested select stakeholders review of the draft document. Comments and suggestions are being incorporated into the document for review and approval by the task force. The document will then be submitted to the Policy Committee for review and approval and should be published later this spring.

Exhibit Program

TNI would like to the organizations that participated in the 2025 exhibit program.

Meeting Sponsors

Absolute Standards, Inc.

LabWare

Waters | ERA

Internet Café Sponsors

Environmental Express (Antylia)

LIMs-Plus

Other Exhibitors

Analytik Jena, USA

Autoscribe Informatics

MANTECH

Phenova, A Phenomenex Company

Quality Environmental Containers (QEC)

SEAL Analytical, Inc.

Skalar Group, Inc.

The Jack Farrell Analytical Excellence Scholarship

On March 12, 2026, the TNI Board of Directors voted to create the **Jack Farrell Analytical Excellence Scholarship** with 100% of the proceeds to go towards supporting individuals from small laboratories to become certified professionals under TNI's new credential initiative. The funding and management procedures and policies for this will be under development and more information will be available on the website and through other TNI communications soon. Donations will be accepted through a "Donate Now to the Jack Farrell Analytical Excellence Scholarship fund" on the TNI website or by check to TNI and we encourage organizations and individuals to contribute to this cause. TNI is a 501 (c)3 organization and, as such, donations may be tax deductible.

Jack Farrell, who passed away last summer, was a recognized leader in the Environmental Testing Industry and as such was a long-time member of TNI's Board of Directors. He was very active in the formative years of the national laboratory accreditation efforts and he participated in and led many technical and administrative committees, work groups and task forces commissioned by TNI. In his tenure with TNI, he developed and presented 23 training courses on quality management systems, laboratory ethics and advanced topics in analytical chemistry that have been taken by well over 1000 individuals. His classes on manual integration and data integrity were notable in their effect on this industry and are still being taken today.

E. (Jack) Farrell was born and raised in New Jersey. He graduated from Richard Stockton State College with a bachelor's degree in biology and later attained a degree in chemistry from Stockton College. Jack left an indelible mark of professionalism, integrity, and passion about reliable data on our industry. Jack passed away last summer.

Following his graduation, Jack began his lifelong career in the environmental industry. He had over forty years of experience in laboratory operations and quality assurance, working as an analyst, Quality Assurance professional, technical and general manager of small, medium, and large commercial laboratories. He was a professional trainer, consultant, and third-party assessor for a number of state and federal regulators, and an expert in assessing laboratories for compliance with regulations and accreditation standards. Jack was the Senior Environmental Analyst, President, and Founder of Analytical Excellence, Inc. (AEX). Since its inception in 1993, Jack and Patty Synder, his longtime companion, operated this independent consulting firm specializing in environmental laboratory operations, analysis, and matters concerning the generation of analytical data to support effective and educated compliance decision-making.

Jack was active in numerous industry-related groups and professional associations including the NJDEP laboratory Advisory Council, the American Council of Independent Laboratories (ACIL), the Water Environment Federation (WEF), the American Chemical Society (ACS), EPA Laboratory Advisory Board, Florida Society of Environmental Analysts (FSEA), and the NELAC Institute (TNI).

Jack cared deeply about our industry and he recognized the importance of the work that we do. He was always a strong proponent of ethical behavior by scientists and was very active in efforts within TNI to include a data integrity component in the requirements for laboratories seeking accreditation.

We will likely remember Jack sitting in the back of a room, wearing a baseball cap, chewing on a cigar, and contributing astute comments and suggestions on the topic at hand in his own inimitable way.



The First Offering of the Exam for the TNI Certified QMS Professional will be at EMS in St. Louis!

By Ken Brown, Jerry Parr, and Lynn Bradley

It's really happening! The first exam for the new TNI Certified Quality Management Systems Professional is planned for August 8, 2025, in St. Louis, Missouri. This in-person proctored exam will take place from 8 am to noon, with a 15-minute break between the two parts. This will include the proctor confirming candidate identification, releasing the unique exams to each candidate to start testing, and collecting the exams at the end of each period. Each unique exam will contain 150 random questions selected from the database, and because it is an "open book" exam, each candidate may use a personal laptop, phone, or paper reference materials during the exam. Additional technical disciplines (asbestos, chemistry, microbiology, radiochemistry, and aquatic toxicity) may be requested, with a small number of additional questions plus additional time to complete them.

To be part of this first group, create your account in TNI's [Educational Development System](#), apply for the credential, provide the requested documentation plus the application and testing fees. Once you pass the exam (score of 70% or greater), you will be able to use the credential on all correspondence, resumes, and promotional materials. You will be able to include TNI Certified Professional – Quality Management System or TNI-CP- QMS, on stationery, websites, business cards, etc., after your name, and following any academic degrees and/or licensure you hold (e.g., Jane Smith, PhD, TNI-CP-QMS). Your name will also be listed in the TNI database of Certified Professionals.

An optional exam preparation course will be offered on June 26, to explain what to expect during the exam process. This course is not a "cram-for-the-exam" course, but rather an explanation of how the testing session will proceed, and taking the course does not guarantee passing the exam. There will be practice questions (not to be on your exam) so that you can get an idea of what to expect, but studying the references cited in the [QMS KSA document](#) will be the best preparation available. If you believe that your knowledge is sparse in one or two areas, you might consider taking a relevant training course (click on the digital badge for that area to see available courses). Also, for an additional fee, a retest may be taken within a year after application, if needed.

Brief History of the Committee

This initiative grew out of the 2020 Strategic Plan, and the Quality Management Systems (QMS) Credential is the committee's first complete accomplishment. Twelve digital badges are offered, in aspects of QMS, and for quality management professionals, a combination of education and experience will qualify one to by-pass accumulating the badges and go directly to the exam for the "full credential" as described above. Alternatively, someone attaining all twelve digital badges may be awarded the "full credential" for a fee, with no additional exam needed.

We anticipate that credentials for additional laboratory roles (assessors, technical specialists, and others) will be developed over time, with both digital badges and Certified Professional credentials offered.

NOTE: TNI has no plans to require laboratories, ABs, or individuals to take training courses, become certified, or earn digital badges. This credential is voluntary to allow individuals to demonstrate their competency. Any employer may require this of certain staff, but that is beyond the scope of TNI's role.

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First Offering for Exam for TNI Certified QMS Professional cont.

Requirements to Qualify and Retain the Full Credential

In order to apply for the Certified Professional exam, a candidate must pay a fee and present documentation for meeting the following criteria:

EDUCATION	EXPERIENCE
High School	5 years working in a laboratory, including at least one year in a quality position.
Associate's degree in related science field	4 years working in a laboratory, including at least one year in a quality position.
Bachelor's degree in related science field	3 years working in a laboratory, including at least one year in a quality position.
Master's degree, or higher, in related science field	2 years working in a laboratory, including at least one year in a quality position.

The credential is valid for three years and may be renewed upon presentation of evidence that 24 professional development hours (PDH) were completed and a renewal fee paid. Examples of PDH are teaching courses, participating in committee activities, and attending conferences, or other types of participation in a related professional community.

The Digital Badge Option

For QMS, there are twelve digital badges offered, in various aspects of a lab's quality management system:

- Basic Quality Management System
- Proficiency Testing (PT)
- Data Integrity
- Customer Service
- Measurement Traceability
- Internal Audit
- Corrective Action
- Records and Document Control
- Method Validation
- Sample Handling
- Quality Control
- Data Review and Reporting

Each badge is awarded separately upon passing an online exam (with a separate fee) after completing two training courses; for the Quality Control badge, candidates must select one or several technical disciplines. If desired, once all twelve badges are awarded, the candidate may apply and receive the Certified QMS Professional credential for a fee, but with no further exam required.

There are many more details than we can put into this newsletter article, but all are covered in the [QMS KSA document](#) or made available in the EDS system once your account is created. The EDS system is your access point for all TNI training and credentialing activity now, so please, check it out!

TNI Consensus Standards Development

By Paul Junio and Bob Wyeth

All of the TNI Environmental Laboratory Standards are in some state of revision. Any TNI member or member of the public may comment on the proposed changes. In addition to any comments submitted, SIRs are reviewed to see if they should result in changes being made to the Standard. Comments that are submitted are ruled persuasive or non-persuasive, and those decisions are published. If a comment is ruled persuasive, it requires a modification to the proposed Standard, which is followed by another Draft Standard and comment period. The process of revise – committee approval – public comment continues until there are no persuasive comments received.

Below is a brief summary of where each of the Volumes and Modules stands:

Volume 1: Management and Technical Requirements for Laboratories Performing Environmental Analysis

Module 1: Proficiency Testing

Module 1 Proficiency Testing is under development within the Proficiency Testing Expert Committee. This is one of 4 Modules that the committee has in revision and is expected to be the last or next to last of the four to be completed.

Module 2: Quality Systems General Requirements

Module 2 draft Standard is not yet complete for publishing as a Draft Standard. The Expert Committee has taken all language of ISO 17025:2017 and included any text in ISO 17025:2005 and TNI Module 2 2016 that is deemed worth keeping. Review has included removing duplicative requirements from either ISO 17025:2005 or TNI Module 2 2016. The Committee has begun a review of the entirety of this potential draft and also taken previous suggestions into consideration. In addition to the work on the Draft as a whole, language for Technical Specialist is being revised in conjunction with Expert Committees to ensure this Module contains general requirements that work with the more specific requirements in Technical Modules. Their final review process involves a review of the definitions that are included in the current Standard, as well as those that may be added. The Committee hopes to have a Draft ready for discussion at NEMC in St. Louis.

Module 3: Quality Systems for Asbestos Testing

Module 3 has a finalized Module 3 effective July, 2023. This revision was re-written from a technological standpoint and will still be reviewed as additional modules are completed to assure that no issues of implementation arise. It did not address Technical Specialist, so it may need to be re-opened depending on the direction taken with Technical Specialist in Module 2.

Module 4: Quality Systems for Chemistry Testing

Module 4 has undergone work by multiple Work Groups of the Expert Committee. Those groups included Method Validation and Verification, LOD/LOQ, Demonstration of Capability, Calibration, Quality Control, Data Acceptance, and Sample Handling. The entire Committee is now performing a review in total and hopes to have the Draft Module 4 ready to present at NEMC in St. Louis.

Module 5: Quality Systems for Microbiology Testing

Module 5 has approved a Draft of Module 5. This Draft was posted on April 10, 2025 for its 90-day review by TNI Membership this spring. Please review and comment on this Standard.

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TNI Consensus Standards Development cont.

Module 6: Quality Systems for Radiochemistry

Module 6 Quality Systems for Radiochemistry has a finalized Module effective January, 2023. It also will be subject to a review to ensure that there are no issues with implementation and may need to address any issues that arise with the Technical Specialist as written in Module 2.

Module 7 Quality Systems for Whole Effluent Toxicity

Module 7 was posted for its review by TNI membership on February 26, 2025. The comment period for this Module expired on May 27, 2025. As with Module 5, please review and comment on this Standard.

Volume 2: General Requirements for Accreditation Bodies Accrediting Environmental Laboratories

Modules 1 & 3

Modules 1 & 3 will be combined into a new Module 1. The Laboratory Accreditation Body Expert Committee is discussing the last few comments on their Draft Standard that were received at close of the comment period in June, 2023. There have been revisions made based on these comments, so Draft Revision 2 will still be published, possibly in time for NEMC this August.

Module 2 Proficiency Testing Requirements for Accreditation Bodies

Module 2 is among the 4 modules previously mentioned under the purview of the Proficiency Testing Expert Committee. No substantive changes are anticipated in this Module, but (like Volume 1 Module 1) it is of a lower priority for the Committee.

Volume 3: General Requirements for Environmental Proficiency Test Providers and Volume 4: General Requirements for an Accreditor of Environmental Proficiency Test Providers

Volume 3 and Volume 4 were taken back to Committee following comments that were made at the Forum in Columbus in January, 2024. A Draft of Volume 4 has been prepared by the PT Expert Committee and is being reviewed by the PT Program Executive Committee. Volume 4 is expected to be posted prior to NEMC, while Volume 3 is also expected to have a draft version ready to discuss at NEMC.

Field Sampling and Measurement Organizations Standards Volume 1: General Requirements for Field Sampling and Measurement Organizations

FSMO Standards Volume 1 has been finalized. The Standard was reviewed by CSDPEC and no implementation issues were found in it.

Volume 2: General Requirements for Accreditation Bodies Accrediting Field Sampling and Measurement Organizations.

The Field Activities Committee has completed its overview of Volume 2. They are beginning the process of gathering comments from within the committee to consider in their review prior to posting a Draft for review by TNI membership. As always, check for updates on these Modules by keeping an eye on the news section on the TNI website. You can also subscribe to any announcements of Standard activity at this [link](#).

ChairSpeaks: Musings from the TNI Chair

By Alfredo Sotomayor

“The Comfort of Process”

Unpredictability, apprehension, instability, arbitrariness, fear of the future, and a general sense that I will not be happy or carefree soon...The switch is set to high and does not budge. I am either hyper or numb from so many stimuli.

These are not just perceptions. The turmoil is real, no more so than for our federal friends and colleagues. And when we seek explanations, we get doublespeak, circular arguments, or stonewalled. The chaos seems deliberate, created to confuse and scorch. It is hard for the disoriented and burned to react or act.

The questioning of science hurts deeply. Many of us went into our careers believing that science and its methods could lead to a better and a more pleasant world. We are now witnessing how research is co-opted to “validate” opinion and justify ideological outcomes, the triumph of the pseudo.

Our Oasis

Thankfully, there is a space we can retreat to where reason, decorum, and respect for the truth are alive and in force. The arts have always been such a place for me, but these days I can add the Institute to my havens.

One of our founding principles, a belief in consensus and lack of dominance, makes TNI a safe space for all our members. We believe in consensus, not only because it ensures all voices are heard and all opinions are considered, but also because it leads to better and more sustainable decisions. Of course, it takes longer to reach end points, and it can be messy at times, but in the end our belief shields us from overreacting to fancy, fads, and fanfare.

That same regard for accord without dominance informs the workings of our governing body, the TNI Board of Directors. The Board is balanced by design and effort, ensuing all voices are considered. It is rare indeed for the Board to make a decision that is not unanimous, and not because the Directors are cajoled into agreement by the strong hand of a Chair. The Chair does not and would never be able to make decisions by fiat. Even if that were part of my temperament, the Directors’ integrity would hold me in check and thwart any such attempt. That is what I would expect and would want them to do.

We believe in process. Process promotes uniformity, continuity, and accountability. Our Bylaws and many SOPs, Policies, and Guidance are the connective tissue of our operations and document the Institute’s infrastructure. They ensure we avoid arbitrariness, whim, and the volleying of deciding today and changing tomorrow without a reason or explanation.

Once Upon a Time

The Institute’s Founding Parents had some good models to emulate, but they also deliberately created an organization that promoted inclusivity, a variety of point of views, and a healthy respect for devising processes and then, most importantly, following them. We did something right then that continues to guide us today and keeps us accomplishing good things for the Institute and our community.

And yet, we have seen how it is possible to forsake principle for expediency and to derail process to implement disruptive scripts with little dissent or opposition. TNI leaders and members have demonstrably and consistently acted with high integrity and put the Institute’s welfare above the vagaries of preference and behavior. We have been more than lucky, for we actively honor being true to our mission and principles and we commit to continuing to do so.

Great causes transcend personality. Great leaders do not wield chainsaws. Great organizations build stronger and longer chains.

Only connect.

Alfredo

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