Environmental Measurement Symposium

"Where Do We Go From Here?"

Program of Events

Crystal City, Virginia
August 1 – 5, 2022

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Exhibition

Independence Ballroom

Meet with instrument manufacturers, laboratory suppliers,
LIMS providers, and other laboratory service providers.
See the latest innovations in measurement technology, proficiency testing,
sample preparation, and laboratory automation.

Exhibit Hours
Monday 5:30 pm to 7:00 pm
Tuesday 7:00 am to 5:00 pm
Wednesday 7:00 am to 3:30 pm

Welcome

Welcome to the Environmental Measurement Symposium

The 2022 Environmental Measurement Symposium is the combined meeting of The NELAC Institute's (TNI) Forum on Environmental Accreditation and the National Environmental Monitoring Conference (NEMC). Your attendance and participation are key elements to the Symposium's success. Look forward to a week of shared expert knowledge; energetic discussions of current issues and concerns affecting environmental monitoring and laboratories; exploration of products and services to support your endeavours; and invaluable networking with peers.

If this is your first time attending the Symposium, we hope you find it stimulating and beneficial. Our registration staff are available to assist you with any questions or to locate individuals you want to meet. Please let us know how we can help make your participation in the Symposium a success.

Have a great week!

Presentations On-Line

You may preview each day's presentations by visiting:

https://envirosymposium.group/2022/presentations

Recordings of sessions and meetings will be available on the Symposium Portal until October 31, 2022. Thereafter, presentations can be found on the Conference Proceedings for the respective conference.

Symposium Portal

For up–to–the–minute information about the Symposium, visit:

https://portal.envirosymposium.group

- See the Daily Technical Program
- Watch recordings of presentations as they become available
- View the On-line Poster Exhibition

Meals and Breaks

Continental breakfast is served daily 7:00 – 8:00.

Mid–morning and mid–afternoon breaks are provided daily.

Lunch is provided Tuesday and Thursday.

Monday's and Wednesday's lunch is on your own.

If you have special dietary needs, inform the registration staff.

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Welcome

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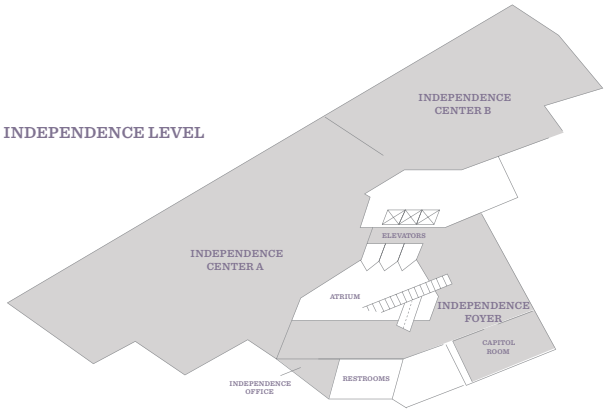

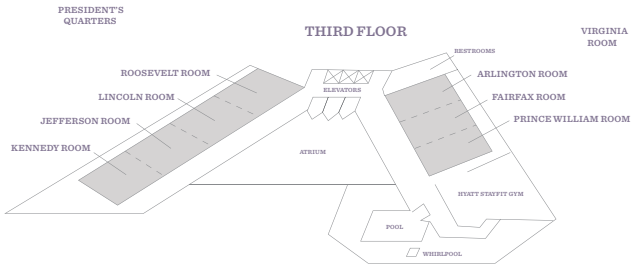

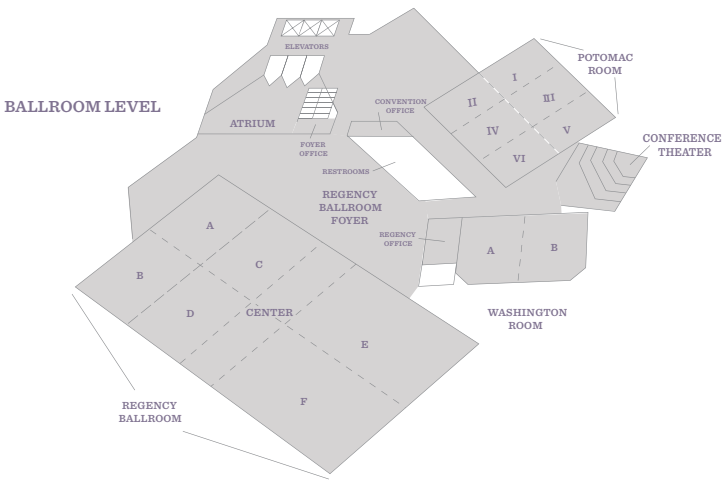

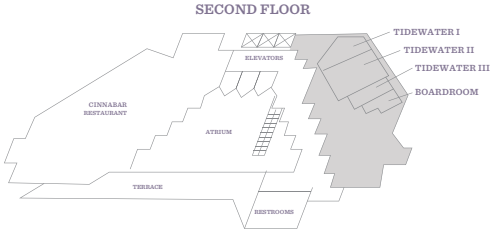

Keynote Speakers

Tuesday, August 2, 8:30 Regency EF

Strategies to Prepare for an Aging Workforce

Fiona F. Middleton

Eurofins Environment Testing America, Talent Learning & Development

Ms. Fiona Middleton has created and built robust succession planning and development programs including a business-focused curriculum for senior leaders, courses for up-and-coming leaders, a High Potential program, and the introduction of coaching and mentoring at multiple levels. Fiona is a dynamic, results-focused strategic learning and development executive, with the ability to conceptualize, design and deliver targeted, sustainable and engaging enterprise training programs that positively impact the bottom line. With more than 20 years of experience in senior leadership positions and in running her own business, she understands the importance of generating innovate solutions, driving positive change, and delivering effective results.

Thursday, August 4, 8:30, Regency EF

Environmental Sustainability

Andre Argenton

Dow Chemical, Chief Sustainability Officer and Vice President of Environment, Health and Safety

Dr. Andre Argenton is responsible for corporate EH&S governance and sustainability. Previously, Andre was the vice president of Core R&D who oversaw a broad portfolio of research programs and world-leading innovation capabilities that enable technology development across multiple key market segments. Prior to that, he was the global R&D director of Industrial Intermediates & Infrastructure. His responsibilities included managing the innovation pipeline across multiple chemistry envelopes including Polyurethanes and Industrial Solutions. Argenton earned a Ph.D. in Physical Chemistry from the University of Sao Paulo. He joined Dow Brazil in 1999 and moved to the U.S. in 2007. Throughout his career, he worked across the spectrum of chemistries and technologies at Dow supporting a broad range of industries and also covering all facets of innovation from new product development to process research to customer facing application development.

Friday, August 5, 8:30 Potomac

Simple, Smart, Sustainable – Preparing Your Environmental Lab for the Future

Suneet Chadha

Perkin Elmer, VP/GM Applied & Food Segments

Dr. Suneet Chadha joined PerkinElmer in 2014 and has served in a variety of positions. Currently as the VP/GM for Applied & Food Segments, he is responsible for global strategy and execution within Applied and Food end markets and also has responsibility for PerkinElmer's analytical solutions technology portfolio. Prior to coming to PerkinElmer, he has worked across R&D, product & business development, strategy and P&L management roles in analytical instrumentation, optical components, engineered materials and services businesses. Suneet is passionate about solving challenges around health of our environment and our food supply chain. Here lies the opportunity for PerkinElmer to develop solutions that improve the world we live in and address some of our biggest challenges including climate change, water and food scarcity, soil degradation, air pollution, recycling water material and energy generation and storage. Suneet holds a Ph.D. in Chemistry from the University of Rhode Island.

Technical Sessions: Monday, August 1

7:00 Continental Breakfast
Regency Foyer

8:00 Welcome and Introductions: Lara Phelps, USEPA ORD/CEMM
Regency EF

8:30 – 10:00 Current and Planned Activities Dealing with Methods and Monitoring from EPA's Safe Drinking Water, Solid & Hazardous Waste, and Clean Water Programs

Session Moderator: Lara Phelps, USEPA CEMM

8:20 SW-846 Methods 2022 Updates
Troy Strock, USEPA Office of Resource Conservation and Recovery OLEM

8:45 Upcoming Activities of SW-846 Methods – The Next Frontier Towards Waste Characterization
Sandip Chattopadhyay, USEPA Office of Resource Conservation and Recovery OLEM

9:10 EPA Clean Water Act (CWA) Methods Activities
Adrian Hanley, USEPA OW Office of Science and Technology

9:35 Overview and Updates of the Federal Drinking Water Program
Jennifer Best, USEPA OW Office of Groundwater and Drinking Water

10:00 BREAK

10:30 – 11:00 NEMC Advances in High Resolution Mass Spectrometry and Its Emerging Environmental Applications
Regency A

Session Chairs: Paul Winkler, Retired and Kitty Kong, Chevron

10:30 Use of Non-Target Analysis for Matrix Mitigation and Accurate Quantification of Legacy PFAS
Charles Neslund, Eurofins Lancaster Laboratories Environment Testing

11:00 – 11:30 NEMC Environmental Forensics
Regency A

Session Chairs: Kitty Kong, Chevron and Kesavalu Bagawondoss, SGS

11:00 The Case for Hydrocarbon Forensics: The Best Methods for Your Site
Erin Rodgers, Environmental Standards, Inc

10:30 – 12:00 NEMC Metals Analysis and Remediation
Regency B

Session Chairs: Zikri Arslan, USGS and Siqi Sun, Analytik Jena

10:30 Improving Data Quality in the Analysis of Metals and Metal Species - A Better Path Forward
Ben Wozniak, Brooks Applied Labs

11:00 Automated Ultra-high Dilutions (>10,000x) to Extend the Applicability of ICPMS to Highly Concentrated Samples
Michael Manhart, Elemental Scientific

11:30 Hydrofluoric Acid-Assisted Dissolution of Biological Samples for Silicon Determination by ICP-MS: Examining Silicon Volatility Under HF Digestions
Zikri Arslan, US Geological Survey

Technical Sessions: Monday, August 1

10:30 – 12:00 NEMC Operational Issues Impacting the Environmental Laboratory Industry (Session 1)

Regency C

Session Chair: Stacie Crandall, HRSD and Judy Morgan, Pace Analytical

10:30 Technical Mentoring – Preparing the Next Generation
Mark Bruce, Eurofins Environment Testing America

11:00 Automation of Inorganic Assays with Flow Injection Analysis (FIA)
Ilkka Lahdesmaki, FIAlab Instruments

11:30 A Novel EI Source Optimized for Use with Hydrogen Carrier Gas in GC/MS and GC/MS/MS
Angela Smith Henry, Agilent Technologies

10:30 – 12:00 TNI Proficiency Testing Program Executive Committee

Regency D

Committee Chair: Fred Anderson, Advanced Analytical Solutions

The purpose of the Proficiency Testing (PT) Program Executive Committee is to establish and maintain a national PT program to support a national environmental accreditation program including establishing Fields of Proficiency Testing (FoPT).

Updates
- New Radiochemistry DW Limits
- Radiochemistry: Reporting Uncertainty with PT Results
- Finalized SOP 4-107 (FoPT Table Management) - Highlights
- Chemistry FoPT Subcommittee – Membership Opportunity
- Analyte Request Application (ARA): PFAS on drinking water FoPT Table
- Proficiency Test Provider Accreditor Evaluations
- Improve Communication with non-TNI Accreditation Bodies
- Proficiency Testing White Paper

What's Next – Requesting Input on Priorities
Other Business
Open Discussion

12:00 – 1:30 Lunch on Your Own

Technical Sessions: Monday, August 1

1:30 – 5:00 NEMC Drinking Water (Session 1)

Regency A

Session Chairs: Bruce Li, Eurofins Eaton Analytical and Ken Rosnack, Waters Corporation

1:30 Modified EPA Method 533 for Analysis of PFAS in Drinking Water and Source Water
Yongtao Li, Eurofins Eaton Analytical, LLC

2:00 Cyanobacterial Toxins in Recreational Waters Using a Targeted UPLC/MS/MS Method and Comparison to Metagenomics
Stuart Oehrle, Waters Field Lab-Northern Kentucky University

2:30 Addressing Drinking Water in Oregon: A look at monitoring efforts for cyanotoxins, volatile organic compounds and PFAS
Lori Pillsbury, Oregon Department of Environmental Quality Laboratory

3:00 BREAK

3:30 Quantitation of Microcystins and Nodularin in Drinking Water Samples to Meet EPA Method 544 Requirements Using Qsight LC/MS/MS
Mollie Cyr, PerkinElmer

4:00 PFAS National Drinking Water Assessment Monitoring: UCMR3 and UCMR5 Comparison
Yongtao Li, Eurofins Eaton Analytical, LLC

4:30 High Throughput Automated Solid Phase Extraction of UCMR5 PFAS Compounds
Ian Wan, PromoChrom Technologies

1:00 – 5:00 NEMC Polyfluoroalkyl Substances (PFAS) in the Environment (Session 1)

Regency B

Session Chairs: Mike Chang, Restek Corporation and Charles Neslund, Eurofins Environment Testing America

1:00 Establishing the Updated US EPA 537.1 for PFAS Reliably in a Lab by Automated Sample Preparation with the Combination of XANA and D-EVA
Angelika Koepf, LCTech GmbH

1:30 Automated Extraction Method of PFAS From Different Environmental Matrices
Alicia Stell, CEM Corporation

2:00 Evaluation of a New Polymeric Weak Anion Exchange Solid Phase Extraction Sorbent for PFAS
Matthew Giardina, Agilent Technologies

2:30 Comparing Extraction Protocols, Analytical Requirements and Results from Methods Utilized to Test for PFAS in Aqueous Samples: EPA 537.1, EPA 533, ISO 21675
Evan Walters, Biotage, LLC Testing

3:00 BREAK

3:15 Automating the Solid Phase Extraction of PFAS for a Range of Methods and Matrices
Ian Wan, PromoChrom Technologies Ltd

3:40 A Holding Time Evaluation of the Stability of "Forever Chemicals" in Wastewater
Charles Neslund, Eurofins Lancaster Laboratories Environment Testing

4:05 An Exploration of Sample Prep Techniques for Non-Targeted Analysis of PFAS Using Combustion Ion Chromatography
Jay Gandhi, Metrohm USA

4:30 Determination of Extractable Organically Bound Fluorine (EOF) in Surface Water with Molecular Absorption Spectrometry
Siqi Sun, Analytik Jena US

Technical Sessions: Monday, August 1

1:30 – 5:00 NEMC Operational Issues Impacting the Environmental Laboratory Industry (Session 2)

Regency C

Session Chairs: Stacie Crandall, HRSD and Judy Morgan, Pace Analytical

1:30 Cut Down Your Column Cuts: Matching GC Liner Style to Matrices and Reduce Column Trimming Headaches
Angela Smith Henry, Agilent Technologies

2:00 Reduced Sample Volumes to Increase Sample Throughput for US EPA Method 1664B
Michael Ebitson, Biotage

2:30 Breaking Through the EPH Fractionation Bottleneck with Automation and Multiple Cartridge Format
Michael Ebitson, Biotage

3:00 BREAK

3:15 Faster, Greener and More Productive: EPA Method 826
Lee Marotta, PerkinElmer

3:40 Lessons Learned from a PFAS-Stress Test of LCMS Instruments
Ruth Marfil-Vega, Shimadzu Scientific Instruments

4:05 Can Reducing Analytical Cycle Time by Only 1 Minute Increase Revenue by $100,000 or More? Yes!
Richard Clinkscales, Thermo Fisher Scientific

4:30 Improved Anions Analysis – Impact of Newer Technologies in Older Contaminants.
Quoc-Huy Ho, Shimadzu Scientific Instruments

1:30 – 5:00 TNI Assessment Forum: Internal Audits – Bringing Together Assessor Expectations and Perspectives

Regency D

Session Moderator: Judy Morgan, Pace Analytical

1:00

- Overview of TNI 2016 Standard EL-V1M2 Section 4.14 Internal Audits (ISO/IEC 17025:2005, Clause 4.14)
- Overview of Standard Interpretations relative to internal audits
- Internal Auditing and SOP Review – Survey results on requirements/expectations of Accrediting Bodies

1:30 Assessing effectiveness of the internal audit schedule and SOP review process relative to requirements of the standard
Kristin Brown, Utah DOH

2:00 Best Practices on how to effectively meet internal audit requirements
Mitzi Miller, Miller Quality Consulting

2:30 SOP Review: Anticipating the Blind Spots
Aaren Alger, Alger Consulting and Technology

3:00 BREAK

3:30 Interactive Panel Discussion with ABs – Participation will be rewarded and eligible for a couple of door prizes!

Opening Reception and Exhibition

Monday
5:30 pm to 7:00 pm – Indepedence Ballroom

Technical Sessions: Tuesday, August 2

7:00 Continental Breakfast
Independence Ballroom

Keynote Address
Regency EF

8:00 Welcome: Earl Hansen, The NELAC Institute

8:10 Introduction: Ray Frederici, Eurofins Environment Testing America

8:15 Strategies to Prepare for an Aging Workforce
Fiona Middleton, Eurofins Environment Testing America

9:00 – 12:00 NEMC Laboratory Informatics
Regency A

Session Chair: Robert Benz, Horizon LIMS

9:00 Arming Yourself with the Tools and Knowledge for a Successful LIMS Implementation
Bill Pingpank, Ethosoft, Inc.

9:30 Using a LIMS to Streamline Your Quality Management System (QMS)
Steve Wesson, Accelerated Technology Laboratories

10:00 BREAK

10:30 Micro ELN, an Innovative Data Management System for Automated Microbiological Analysis for Wastewater Treatment Plants
Devon Morgan, CCWRD

11:00 Interfacing Remote Clean Water Act Monitoring of Environmental Compliance Instruments with Informatics Platforms with Quality Control Challenge Points
Edward Askew, Askew Scientific Consulting

11:30 How to Select the Correct LIMS for Your Laboratory. A Consultant's Guide to the ABCs.
Eddie Clemons II, PQC-S

9:00 – 12:00 NEMC New Organic Monitoring Techniques (Session 1)
Regency B

Session Chair: Richard Jack, Phenomenex

9:00 Workflows Optimized for High Throughput, Robust Persistent Organic Pollutants (POPs) Analysis in Environmental Matrices
Ruud Addink, Fluid Management Systems

9:30 Recent Advances in Sample Preparation of POPs by a New Accelerated Solvent Extraction Technology
Chris Shevlin, Thermo Fisher Scientific

10:00 BREAK

10:30 A New ASTM Method for the Determination of Nitrosamines in Water by Direct Injection LC-MS/MS
William Lipps, Shimadzu

11:00 What's That Smell? Trace-Level Analysis of Odorants in Water Using High-Capacity Sorptive Extraction
Robert Harrington, Aquaculture Research Institute

11:30 Improving Discovery of Volatile Per- and Polyfluoroalkyl Substances (PFAS) in Landfill Gas
Rachael Szafnauer, Markes International GmbH

Technical Sessions: Tuesday, August 2

9:00 – 12:00 TNI Mentor Session
Internal Audits: Bringing Together Assessor Expectations and Perspectives

Regency C

Session Moderator: Dorothy Love, Eurofins Lancaster Environmental

9:00 Microbiology Auditing
David Caldwell, Oklahoma DEQ

9:20 Chemistry Auditing
Michelle Wade, A2LA Workplace Training

9:40 When Can Normal Activities Be Considered a Review/Audit
Eric Davis, Horizon LIMS

10:00 BREAK

10:30 Family Feud with Panel discussion

9:00 – 12:00 TNI Quality Management Systems Expert Committee

Regency D

Committee Chair: Debbie Bond, Alabama Power

The Quality Management Systems Committee develops a standard for the quality systems in environmental laboratories. The elements of the quality system include organizational structure, responsibilities, procedures, processes, and resources (e.g., facilities, staff, equipment) for implementing quality management in testing operations.

- Volume 1 Module 2 Progress Summary
- Update from Active QMS Workgroups:
  - Language Updates
  - Definitions

10:00 BREAK

- Technical [Specialist?] clauses
  - Proposed language
  - Discussion

12:00 – 1:00 Lunch Provided

Regency EF

12:15 Introduction: Lara Phelps, USEPA ORD/CEMM

12:20 The 2022 Charlie Carter Award: Making a Difference
Ray Frederici, Eurofins Environment Testing America, Senior Advisor – QA & HSE

Ray has over 40 years experience in the environmental testing industry, a B.S. in Environmental Biology, and an MBA. Ray is an advocate and contributor for the environmental testing industry and has been active in TNI, ACIL, NEMC, EDQW, and other environmental associations. He is an expert in quality and safety systems development and implementation.

The Charlie Carter Award

Dr. Charles (Charlie) William Carter

Dr. Charles (Charlie) William Carter dedicated over 30 years to the environmental laboratory business and community. Considered a highly respected environmental testing genius by everyone fortunate enough to know him, he was brilliant and had relentless energy, work ethic, and passion for advancing the environmental testing industry by providing critical scientific expertise and support. Charlie was deeply involved in many environmental organizations and a frequent speaker at conferences, forums, and meetings. He was a leader in the industry and one you could count on always pushing the envelope to help the environmental measurement, monitoring, and laboratory community excel in meeting the highest levels of integrity and quality.

This award was established to recognize a technically competent individual and leader in the environmental measurement, monitoring, or laboratory industry, embodying Charlie's strengths in scientific expertise, communication, and mentoring. One recipient is selected annually and recognized at the Environmental Measurement Symposium (Symposium). The recipient provides a Keynote Address at the Symposium, receives free registration for the full Symposium, and is presented with the award.

Nominations will open for the 2023 Symposium on Monday, August 1, 2022 and close on January 31, 2023.
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Previous Award Winners

2016: Richard Burrows
2017: Andy Eaton
2018: Marlene Moore
2019: Judy Morgan

Technical Sessions: Tuesday, August 2

1:00 – 3:00 NEMC Best Management Practices for Environmental Laboratories
Regency A

Session Chairs: Andrea Teal, Eurofins Environmental Testing America and Elizabeth Turner, Pace Analytical

1:00 Guidelines on Validation of Non-Regulatory Chemical and Radiochemical Methods
Anand Mudambi, USEPA ORD/OSAPE

1:30 Finding and Dealing with Improper Laboratory Practices
Charles Newton, NV5 Dade Moeller and Associates

2:00 Signs of a Well-Managed Laboratory from an Assessors Viewpoint
Mitzi Miller, MQC, LLC

2:30 Don't Risk it All: How to Tackle Risk in Your Quality Management System
Nicholas Slawson, A2LA

1:00 – 3:00 NEMC Wastewater Surveillance - State of the Science and Its Uses for Monitoring Public Health
Regency B

Session Chairs: Patsy Root, IDEXX Laboratories and Sharon Mertens, Milwaukee Metropolitan Sewerage District

1:00 COVID-19 Wastewater Surveillance: Scalable Solutions for Detection in Low to High Throughput Workflows
Cynthia Ripoll, Macherey-Nagel

1:30 Implementing New ACIL Guidance for Wastewater Surveillance for SARS-CoV-2
Jeff Bates, IDEXX Laboratories

2:00 In-Situ Microbiology Instrumentation for Recreational, Agricultural, Wastewater and Stormwater Measurements
Joyce Wong, Fluidion US Inc

2:30 Wastewater Surveillance Using ddPCR Reveals Highly Accurate Tracking of Omicron Variant Due to Altered N1 Probe Binding Efficiency
Melissa Schussman, Department of Civil and Environmental Engineering, School of Freshwater Sciences, University of Wisconsin-Milwaukee

1:00 – 3:00 TNI Laboratory Accreditation Body Committee
Regency C

Committee Chair: Aaren Alger, Alger Consulting and Technology

The Laboratory Accreditation Body Committee develops the standard for operation of laboratory accreditation bodies.

- Status of the Revised Draft Standard V2M1
- Items for Participant Feedback
- Internal Audits and Frequency
- Remote vs On-site Assessments – Acceptability and Frequency
- Availability of Laboratory Accreditation Status "Without Request" (section 8.2.2)
- Assessor Training Requirements

1:00 – 3:00 TNI Quality Management Systems Expert Committee (Cont.)

Regency C

Committee Chair: Debbie Bond, Alabama Power

Continue V1M2 edits
- Add more recent SIRs and non-valid SIRs
- Other edits?

Other Business

3:30 – 5:00 Environmental Monitoring Coalition (EMC)

Regency C

Coalition Chair: Jerry Parr

The EMC develops consensus recommendations and provides advice to federal and state agencies and stakeholder groups that will reflect the opinions and positions of its constituents on issues that include but are not limited to:

- Validating and implementing methods for sample collection and for biological, chemical, radiological, and toxicological analysis;
- Developing scientifically rigorous, statistically sound, and representative measurements;
- Encouraging the method performance approach in environmental monitoring and regulatory programs;
- Employing a quality systems approach that ensures that environmental monitoring data are of reliable;
- Facilitating the operation and expansion of a national environmental accreditation program; and
- Providing input on specific method implementation and monitoring issues.

3:30 Background

3:45 Open Forum
The Open Forum will allow attendees to bring issues to the Coalition that need to be addressed.

Innovative New Technology Showcase

Tuesday, August 2, 2022
3:30 – 5:30
Potomac

The Innovative New Technology Showcase features a five-minute oral presentation describing each new technology followed by a networking session.

Agilent Technologies — Recent Advances in Agilent GC/MS Technology

Contaminants in water and soil are a worldwide concern. Having rapid methods for identifying and quantitating volatile and semi-volatiles contaminants at low µg/L levels is a useful tool for protecting both human populations and wildlife. For environmental labs testing these water and soil samples, performance, efficiency and sustainability are key factors to viability. Recent advancements in Agilent GC/MS technologies deliver improvements in each of these areas. Of specific interest due to recent helium shortages, we will review a novel technology development to overcome challenges of using hydrogen carrier gas for GC/MS.

AGS Scientific, Inc. — Model RA-7 Series Mercury Analyzer

The new Model RA-7 Series Mercury Analyzer from Nippon Instruments Corporation (NIC), which will be officially released in September 2022, introduces multiple enhancements and time-saving techniques for mercury analysis in wastewaters, soils, sediments & more by EPA Methods 245.1, 245.5, 7470A & 7471B. In addition to the RA-7's discrete, direct purge design, additional technological advancements include the ability to combine up to three autosampler modules per each RA-7 detector with smart, time management software to maximum total sample throughput. These three autosamplers can be any combination of the three available configurations: standard (for pre-digested solutions), automated digestion for wastewaters, and automated digestion for soils & sediments.

Biotage LLC — ISOLUTE® Phase Separators

Extract drying and concentration is a common procedure in environmental laboratories performing organic sample preparation. ISOLUTE® Phase Separators have been designed to rapidly separate chlorinated solvents from aqueous phases, under gravity. This functionality allows laboratories to seamlessly integrate the technology into their workflows without the need for additional vacuum or pressure manifolds. In addition, transfer steps can be eliminated with direct to concentration vial drying when utilized with TurboVap® concentrators.

Camsco — OMNI-2200 Autonomous Real-time VOC Monitor

Comparison of real-time benzene measurements to PST (passive sampling tube, EPA Method 325) in Oil & Gas refineries and petrochemical sites is of great interest to the fenceline monitoring industry and the US EPA. The advantage of real-time measurements is that operators and Environmental Health & Safety supervisors can take action in real-time to mitigate emission events.

Shimadzu Scientific Instruments — Magnifying Plastics Analysis

Plastic pollution, in the form of nano-, micro- or macroplastics, is going to persist in the environment for decades despite increasing efforts for developing new materials that degrade at a faster rate. Then, Where Do We Go from Here? As environmental analytical chemist, we can contribute to mitigate plastic pollution by enhancing the quantification and characterization of plastic materials and related contaminants. To support this effort, Shimadzu is introducing a new dual molecular spectroscopy technology-based system, never built into a single instrument, that will magnify your workflows for plastic analysis.

Innovative New Technology Showcase

TE Instruments USA Xprep C-IC

TE Instruments introduces the world's first independent sample preparation system for Combustion Ion Chromatography analysis: the Xprep C-IC. This unique configuration redefines automated combustion IC analysis through its innovative design and functionalities. Besides full control over sample combustion, the Xprep C-IC not only collects the oxidized gas stream, but also automatically transfers a fraction of the absorbance solution to any renowned IC system. The ideal solution to cover the increasing demand for analysis of corrosive halogens (Fluorine, Chlorine, Bromine, Iodine) and Sulfur compounds (e.g. Sulfate, Sulfite, Thiosulfate) in different matrices.

TECTA-PDS Tecta B16 Automated Microbiological Water Quality Testing System

Tecta B16 is an enzyme substrate method, and the world's first US-EPA approved automated microbiological water testing system for E.Coli and Total Coliforms in drinking water. US-EPA 40CFR136 approval pending. Fecal Coliforms and Enterococcus tests are also available.

Thermo Fisher Scientific Sensitive, reproducible GC-MS Results

Learn about our latest gas chromatography-mass spectrometry (GC-MS) systems, which allow laboratories to extract more information from every sample and increase the confidence of your analytical results. Combined with productivity enhancing software, our advanced GC-MS instruments enable you to meet or exceed the most stringent requirements for performance, reliability, and value.

USEPA ORD Wildfire Smoke Air Monitoring Response Technology (WSMART)

EPA's Office of Research and Development is making available specific air monitoring technologies for loan to state, local, and tribal air organizations to support supplemental air monitoring in areas affected by wildfire smoke and with observational data coverage gaps. This technology showcase will highlight an EPA ORD-developed mobile monitoring system that quickly adapts any vehicle to map air pollution as well as show some commercial off-the-shelf sensor systems included in the monitoring set of loan options.

Vapor Pin Enterprises, Inc. Vapor Pin(r) sub-slab vapor port

The Vapor Pin(r) is a small sub-slab vapor port that is installed in minutes using commonly available hand tools (hammer drill, drill bits, and dead blow hammer). Once installed, the Vapor Pin(r) can be securely covered, making it suitable for multiple sampling events, or simply used to gather data during a single event. After the sampling is complete, the Vapor Pin(r) can be retrieved for reuse.

Waters Corporation waters_connect for quantitation

Access the future of quantitation with waters_connect, the newest Waters software platform, now available on our core Xevo tandem quadrupole family of mass spectrometers. Reduce time spent on data review by up to 50% with our unique Exception Focused Review (XFR) functionality. Process large sample batches fast using accelerated workflows that speed up and enhance your method development process. Reduce the burden of data integrity by facilitating accurate, traceable, and secure records. Reduce the training burden with software that enables all users to generate high quality data quickly and easily

Xylem, Inc. ML600 Autodilutor for The FS3700

Improving laboratory procedures has always been a top priority for OI Analytical, a Xylem brand. For years, labs have turned to OI Analytical for accurate, reliable continuous flow analyzers. And our latest accessory is no exception. The Hamilton ML600 was designed to work seamlessly with our hardware, updated FlowView software, and our autosamplers. The semi-automated autodilutor saves time, reduces effort, and reduces sample loss, with no compromises to data quality.

Plenary Session: Wednesday, August 3

7:00 Continental Breakfast
Grand Ballroom

8:15 – 12:00 PLENARY SESSION: Where Do We Go from Here?
Regency EF

8:00 Welcome
Earl Hansen, The NELAC Institute

8:15 Introduction to Session
Lara Phelps, USEPA ORD/CEMM

8:30 EPA Priorities from the Infrastructure and Jobs Act
Zealan Hoover, Senior Advisor to the USEPA Administration for Infrastructure, USEPA Office of the Administrator

9:15 EPA's Strategy for Addressing PFAS in Water, Air, and Land
Susan Burden, Scientific Support Advisor & ORD PFAS Executive Lead, USEPA Office of the Science Advisor, Policy, and Engagement

10:00 BREAK

10:30 Advancing Environmental Justice with New Measurement Methods
Phillip (Phil) Fine, Deputy Associate Administrator, USEPA Office of Policy

11:15 Environmental Justice, Risk and Innovation
Louie Rivers, Senior Social Science Advisor, USEPA ORD Immediate Office of the Assistant Administrator

Plenary Speakers: Wednesday, August 3

Zealan Hoover, Senior Advisor to the EPA Administration for Infrastructure

Mr. Zealan Hoover is a Senior Advisor to the EPA Administrator. He is leading EPA's implementation of the historic Bipartisan Infrastructure Law to help communities tackle the climate crisis and expand access to clean water while creating good-paying union jobs, advancing environmental justice, and boosting local economies. Zealan previously served as a policy advisor supporting President Obama's domestic and international climate agenda in the White House. He is a graduate of the University of North Carolina at Chapel Hill.

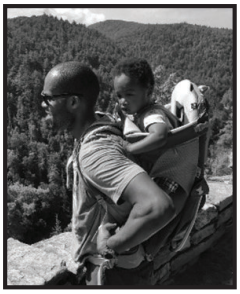
Susan Burden, Scientific Support Advisor & ORD PFAS Executive Lead, Office of the Science Advisor

Dr. Susan Burden is currently the PFAS Executive Lead for EPA's Office of Research and Development (ORD) where she coordinates ORD research efforts on PFAS. She is also a member of the EPA Council on PFAS. In addition to her PFAS responsibilities, Susan is the Scientific Support Advisor in ORD's Office of Science Advisor, Policy and Engagement (OSAPE) where she provides leadership for OSAPE on research planning and scientific support issues. Prior to this position, Susan served as the Chief of the Regulatory Support Branch within OSAPE and worked with a team of scientists to integrate ORD's scientific research and expertise into EPA regulations, guidance, and policies.

Phillip (Phil) Fine, Deputy Associate Administrator, Office of Policy

Dr. Phillip Fine joined EPA after a 15-year career at the South Coast Air Quality Management District in Southern California where he oversaw all activities of the Division, including development of State Implementation Plans and Air Quality Management Plans, strategies and regulations for air pollution control, meteorology and forecasting, air quality evaluation, air toxics risk assessment, emissions inventories, socioeconomic analyses, transportation programs, and enforcement for area sources. Before joining the South Coast AQMD, Phil was a Research Assistant Professor at the University of Southern California, Los Angeles where he taught courses and conducted extensive research on particulate pollution, air monitoring technologies, and exposure assessment. He has over 50 peer-reviewed scientific publications to date. He received his Ph.D. from the California Institute of Technology in Environmental Science & Engineering, and his bachelor's degree in Mechanical Engineering and Materials Science & Engineering from the University of California, Berkeley.

Louie Rivers, USEPA ORD Senior Social Science Advisor in ORD's Immediate Office of the Assistant Administrator.



Dr. Louie Rivers' research focuses on the examination of risk, judgment and decision process in minority and frontline communities, particularly in regards to the natural environment and issues of environmental justice. Traditionally, the study and governance of risk has been from a highly technical and quantitative perspective, excluding lay stakeholders. In order to better include minority and/or frontline communities into risk governance processes there is a need to better understand how these populations assess or perceive a variety of environmental risks and subsequently make decisions in relation to these risks. Addressing this gap in environmental regulation and policymaking is a major part of his research agenda. Louie is the Senior Social Science Advisor in ORD's Immediate Office of the Assistant Administrator.

Technical Sessions: Wednesday, August 3

LUNCH ON YOUR OWN
12:00 – 1:30
OR
Attend a sponsored luncheon seminar.

You must have pre–registered for the luncheon seminars or acquire a ticket from the selected sponsor to attend.

The Latest Trends in Analysis of PFAS, Microplastics and Emerging Contaminants in the Environment --- & ---- Novel GC/MS Tools to Analyze SVOCs and Other Regulated Contaminants Using Hydrogen Carrier Gas

Tarun Anumol and Angela Smith-Henry,
Agilent Technologies
Regency A

Agilent Technologies

Recent Trends in PFAS Analysis
Mike Change and Jason Hoisington, Restek Corporation
Regency B

RESTEK®
Pure Chromatography

Where Do We Go After PFAS? Solutions for Emerging and Current Chemicals of Concern

Ruth Marfil-Vega, Shimadzu Scientific Instruments
Regency C

SHIMADZU
Excellence in Science

Stay Ahead of Analytical Challenges in Your Analysis of Pesticide Residues and Persistent Organic Pollutants (POPs)

Ed George, ThermoFisher Scientific
Regency D

ThermoFisher
SCIENTIFIC

Investigation into the Performance of Atmospheric Pressure GC/MS for the Analysis of Semivolatiles

Doug Stevens, Waters Corporation
Potomac

Waters
THE SCIENCE OF WHAT'S POSSIBLE.™

Technical Sessions: Wednesday, August 3

1:30 – 5:00 NEMC Collaborative Efforts to Improve Environmental Monitoring (Session 1)

Regency A

Session Chairs: William Lipps, Shimadzu Scientific Instruments and Lem Walker, USEPA OST

1:30 One Curve Fit to Rule Them All
Richard Burrows, Retired

2:00 Efforts of the Environmental Monitoring Coalition to Improve Data Quality
Jerry Parr, The NELAC Institute

2:30 The First Rule of Isotope Dilution Club is that We Do Talk about Isotope Dilution Club
Harry McCarty, General Dynamics Information Technology

3:00 BREAK

3:30 Advances of Official Methods for PFAS Analysis Using SPE and HPLC-MS/MS
Achim Leitzke, MACHEREEY-NAGEL

4:00 Light Gas Analysis – From Concerns to Solutions
Dave Gratson, Environmental Standards, Inc.

4:30 Updates to Standard Methods for the Examination of Water and Wastewater in Preparation of Publication of the 24th Edition and then Beyond
William Lipps, Shimadzu Scientific Instruments

1:30 – 5:00 NEMC Drinking Water (Session 2)

Regency B

Session Chairs: Bruce Li, Eurofins Eaton Analytical and Ken Rosnack, Waters Corporation

1:30 Haloacetic Acids Analysis –Evaluation of Alternatives for Their Improved Analysis
Ruth Marfil-Vega, Shimadzu Scientific Instruments

2:00 Analysis of Polycyclic Aromatic Hydrocarbons (PAHs) in Drinking Water by HPLC with PDA and FL Detection Using Automated Solid Phase Extraction in Accordance with EPA Method 550.1
Jamie Foss, PerkinElmer

2:30 Highly Sensitive Detection of Geosmin and MIB by Purge and Trap (P&T) with Gas Chromatography/Mass Spectrometry (GC/MS)
Stephanie Smith, Xylem Lab Solutions

3:00 BREAK

3:30 1,4-Dioxane in Drinking Water: Increasing Sensitivity for Trace-Level Analysis
Rachael Szafnaur, Markes International GmbH

4:00 Innovative and Sensitive Method for Determination for 1,4 Dioxane by HS-GC/MS
Miles Snow, PerkinElmer

4:30 Combining the Power of Mass Spectrometry with Ion Chromatography through a Single Software Solution
Jay Gandhi, Metrohm USA

Technical Sessions: Wednesday, August 3

1:30 – 5:00 TNI Chemistry Expert Committee
Regency C

Committee Chair: Michelle Wade, A2LA Workplace Training

The Chemistry Expert Committee is responsible for Module 4 of the TNI laboratory accreditation standard. This includes requirements for the calculation of limits of detection (LOD), limits of quantitation (LOQ), calibration curves, and other related values.

1:30 Standard Interpretation Requests
- Review of SIR Status
- Open SIRs and Attempts at Resolution

3:00 BREAK

3:30 Concerns with and Proposed Modifications to EL V1M4
- 1.4 /1.5 Method Selection Method Validation LOD/LOQ (Validation/Verification)
- 1.6 Demonstration of Capability
- 1.7.1 Calibration
- 1.7.2 Quality Control and 1.7.3 Data Acceptance /1.7.4 Sample Handling

4:30 Open Discussion

1:30 – 3:00 TNI PT Expert Committee
Regency D

Committee Chair: Kirstin Daigle, Pace Analytical

The Proficiency Testing Expert Committee develops and maintains consensus standards for proficiency testing that support TNI programs.

1:30 Review of Current Notices of Intent to Modify Standard Volumes and Modules
- EL V1M1
- El V2M2
- EL V3
- EL V4

2:00 Concerns with and Proposed Modifications to EL V1M2
- V1/V2 Work Group Report
- V3/V4 Work Group Report

2:30 Open discussion

Technical Sessions: Wednesday, August 3

3:30 – 5:00 TNI Special Session on Analyte/Method Codes and Proficiency Testing
Regency D

Session Moderator: Jerry Parr, The NELAC Institute

Panelists: **Fred Anderson, PT Executive Committee Chair**
Kristin Brown, NELAP AC Chair
Kirstin Daigle, PT Expert Committee Chair
Dan Hickman, LAMS Administrator
Paul Junio, CSDP Executive Committee Chair
Mei Beth Shepherd, Information Technology Chair

Problem Statement: TNI's Laboratory Accreditation Management Systems (LAMS), used to document the accreditation status of laboratories, contains 3500 "Analyte Codes" and 5000 "Method Codes." These Codes are used by laboratories to report proficiency test (PT) results. For any particular test method, there may be many codes reflecting slight variations of the method. For example, there are 121 method codes for Standard Methods 9221. When laboratories report their PT results they must pick one of these as the method used. However, NELAP Accreditation Bodies may have selected a different code and thus will score the result as unacceptable.

3:30 Background

3:40 Comments from the Panel

4:00 Comments from Attendees on Possible Solutions

4:45 Next Steps

1:30 – 3:00 TNI Microbiology Expert Committee
Potomac

Committee Chair: Cody Danielson, Oklahoma DEQ

The Microbiology Expert Committee is responsible for Module 5 of the TNI laboratory accreditation standard.

- Update and Discussion Regarding Revised Volume 1 Module 5 Draft Standard
- Implementation Guidance/Best Practices: Work on Updating Membrane Filtration Method Blank Implementation Guidance
- Other Business
- Open Discussion

Technical Sessions: Thursday, August 4

7:00 Continental Breakfast
Regency Foyer

Keynote Address
Regency EF

8:00 Welcome: Tarun Anumol, Agilent Technologies

8:15 Environmental Sustainability
Andre Argenton, Dow Chemical

9:00 – 12:00 NEMC Collaborative Efforts to Improve Environmental Monitoring (Session 2)
Regency A

Session Chairs: William Lipps, Shimadzu and Lem Walker, USEPA OST

9:00 Development of ISO Standards for the Determination of Ammonia, Nitrate and Total Nitrogen Using Tube Tests
Christian Prokisch, MACHEREY-NAGEL

9:25 Apply US-EPA Wastewater ATP Guideline to Validate Modified Colitag for Enumeration of E.Coli and Fecal Coliform Bacteria
Preetha Biswas, Neogen Corporation

9:50 Assessment of an Automated E. coli and Fecal Coliform Monitoring System by Comparison with Reference Methods Using the US-EPA ATP Protocol
R. Stephen Brown, Queen's University

10:00 BREAK

10:30 Building Stakeholder Relationships to Facilitate Expanded Application of Non-Targeted Analysis Methods
Ruth Marfil-Vega, Shimadzu Scientific Instruments

11:00 Determining the Procedures That Online and Remote Instruments Must Meet to Confirm Compliance with 40 CFR Part 136 Quality Control
Edward Askew, Askew Scientific Consulting

11:30 Updates on SW-846 Test Method 3050C - Acid Digestion of Inorganics Found in Sediment, Sludges, and Soils
Sandip Chattopadhyay, U.S. Environmental Protection Agency

Technical Sessions: Thursday, August 4

9:00 – 12:00 NEMC Spotlight on Reducing Interferences in ICP/MS
Regency B

Session Chairs: Mark Bruce, Eurofins Environment Testing America

9:00 Revising ASTM D5673 Standard Test Method for Elements in Water by Inductively Coupled Plasma—Mass Spectrometry to Include Interference Removal Technology and a Few Extra Metals for Grins
William Lipps, Shimadzu

9:30 Optimization of Interference Reduction in ICPMS Using Collision Cell Technology
Richard Burrows, Retired

10:00 BREAK

10:30 Interference Removal/Mitigation Utilizing ICP-MS/MS and Single Unit Mass Resolution Technology
Craig Jones, Agilent Technologies, Inc.

11:00 Can the Need for ½ Mass Corrections for Double-Charged Interferences in Methods 200.8 and 6020 Be Eliminated Using a Multi-Quad ICP-MS?
Ruth Wolf, PerkinElmer

11:30 How to Overcome Unexpected Interferences and Accelerate Environmental Analysis Using ICP-MS
Weimin Yang, ThermoFisher Scientific

9:00 – 10:00 TNI NELAP Accreditation Council
Regency D

Council Chair: Kristin Brown, Utah DOH

The purpose of this program is to establish and implement a program for the accreditation of environmental laboratories.

Updates on NELAP Accreditation Body Activities
- Implementation Status for the 2016 Standard
- Operational Status
- Implementation of the 2021 Method Update Rule

PT Issues
Assessments – Remote Assessments and Changes to Assessments

10:30 – 12:00 TNI Laboratory Accreditation System Executive Committee (LASEC)
Regency D

Committee Chair: Maria Friedman, California ELAP

The mission of the Executive Committee is to manage TNI's efforts in supporting a national program for the accreditation of environmental laboratories. Activities of the Committee include developing and establishing policies and procedures, interpretations, guidance documents, and any related tools used by accreditation bodies to implement NELAP.

Recent LASEC Activities
Standard Interpretation Request Update
Participant Feedback – are there additional issues that LASEC can productively address?
Discussion and Participant Questions

Technical Sessions: Thursday, August 4

9:00 – 12:00 NEMC/TNI Conference Planning
Potomac

Session Moderator: Jerry Parr, The NELAC Institute

The NEMC Steering Committee, working with the conference managers, governs the business of the conference. The purpose of the TNI Advocacy Committee is to promote TNI's core programs. The session is to plan the semi-annual meetings of TNI, including the Environmental Measurement Symposium.

- 2023 San Antonio Winter Meeting
- Future Winter Meetings

10:00 BREAK

- 2022 Environmental Measurement Symposium Recap
- 2023 Environmental Measurement Symposium – Minneapolis, MN

12:00 – 1:00 Lunch Provided
Regency EF

1:00 – 5:00 NEMC Air Monitoring, Methods, and Technology
Regency A

Session Chairs: Jason Hoisington, Restek Corporation

1:00 Has the Helium Bubble Burst? Using Hydrogen Carrier Gas with Multi-Gas Enabled Thermal Desorption and a Novel EI Source for TD-GC-MS Analysis of Standard Ambient Air Monitoring Methods
Angela Smith- Henry, Agilent Technologies

1:30 Advanced Instrumentation in Air Monitoring to Achieve Low-Level Detection
Blake Ericson, Montrose Environmental Group

2:00 Innovative, Cryogen-Free, Ambient Air Monitoring in Compliance with US EPA Method TO-15a
Nathan Shafer, Markes International GmbH

2:30 Rapid Greenhouse Gas Analysis
Allison Mason, Shimadzu Scientific Instruments

3:00 BREAK

3:15 CARB 436: A Cautionary Tale of Methods, Math, and Miscalculations
Sheri Heldstab, Retired

3:35 Ambient and Indoor Air Sampling for Per- and Poly-Fluorinated Alkyl Substances (PFAS)
Jason Hoisington, Restek

3:55 The Importance of Sanitary Sewers as the Expected Preferential Pathway in Vapor Intrusion Evaluations
Craig Cox, Cox-Colvin & Associates, Inc.

4:15 Volatile Organic Compound and Ozone Measurements at Carlsbad Caverns National Park: Impacts of Oil and Natural Gas Operation Emissions on Park Air Quality
Barkley Sive, National Park Service

Technical Sessions: Thursday, August 4

1:00 – 5:00 NEMC New Organic Monitoring Techniques (Session 2)

Regency B

Session Chairs: Richard Jack, Phenomenex

1:00 Nontarget and Suspect Screening Analysis of Samples Containing Compounds Derived from Tire Rubber
Karl Oetjen, SCIEX

1:30 Is This the Next Emerging Contaminant of Concern? Analysis of Tire-Degradant 6PPD Quinone in Surface & Drinking Waters
Tarun Anumol, Agilent Agilent Technologies Inc.

2:00 Retain Your Spectral Fidelity: Using H2 Carrier Gas and a Novel EI Source for EPA 8270 With GC/MS and GC-MS/MS Systems
Angela Smith Henry, Agilent Technologies Inc.

2:30 Comprehensive and Robust Analysis of Environmental Semivolatile Organic Compounds Using GC-MS/MS
Rachael Ciotti, Agilent Technologies

3:00 BREAK

3:15 Gas Chromatography Atmospheric Pressure Chemical Ionization (GC-APCI) GC/MS/MS for the Determination of Semivolatiles
Douglas Stevens, Waters Corporation

3:40 Development of Methods and Comparative Analysis of Opiates by UPLC-MSMS and GC-TOF
James Garcia, CSS Inc

4:05 Analysis of PCBs in Environmental Matrices Using Triple Quadrupole GC-MS/MS
Andy Fornadel, Thermo Scientific

4:30 Analysis of Multiple Matrices with a Single Calibration Curve for Polycyclic Aromatic Hydrocarbons (PAHs) with GC-MS Following the EPA 8270E
Andy Fornadel, Thermo Fisher Scientific

1:00 – 5:00 NEMC Polyfluoroalkyl Substances (PFAS) in the Environment (Session 2)

Regency C

Session Chairs: Mike Chang, Restek Corporation and Charles Neslund Eurofins Lancaster Laboratories Environment Testing

1:00 The Analysis for PFAS: An Evaluation of Current Methods, Proposed Methodologies and the Application of New Technologies
Charles Neslund, Eurofins Lancaster Laboratories Environment Testing

1:30 Evaluation of SW-846 EPA 8327: Per-and Polyfluoroalkyl Substances (PFAS) Multi-Laboratory Validation Data by Recovery Correction and Approximate Isotope Dilution Recalculation
Troy Strock, Office of Resource Conservation and Recovery

2:00 EPA Draft Method 1633 for PFAS Analysis: Evaluation of SPE Extraction Options
Heather Lord, Bureau Veritas

2:30 Use of Electron Activated Dissociation (EAD) On the ZenoTOF 7600 System to Elucidate PFAS Structures
Craig Butt, SCIEX

3:00 BREAK

3:15 A Strategy for Ultra Low-Level Detection and Quantification of Short- and Long- Chain Per- and Polyfluoroalkyl Substances (PFAS) by Direct Injection LC-MS/MS
Ed George, Thermo Fisher Scientific

3:40 Ultimate Sensitivity for the Detection of Per- and Polyfluorinated Alkyl Substances in Environmental Water Samples
Kari Organtini, Waters Corporation

4:05 Analysis of PFAS Compounds in Indoor Air using Thermal Desorption GC-MS Part 3: Improvements for High Volume Sampling and Preconcentration of Volatile PFAS Species
Kurt Thaxton, GERSTEL GmbH Environment Testing

4:30 Volatile PFAS in Air: Developing Methods for Targeted Analysis and Discovery of Non-Target Volatile PFAS
Jan Peter Mayser, Markes International GmbH Environment Testing

Technical Sessions: Thursday, August 4

1:00 – 4:00 TNI Training Committee

Regency D

Session Moderator: Calista Daigle, Pace Analytical

1:00 Activities since the Winter Forum
- Training Courses Offered
- Training Courses in Development
- TNI Linked-In Page
- Training Course Catalogue

1:30 Efforts of the Competency Task Force to Develop the Credentialing Initiative

2:00 Open Forum on the Credentialing Initiative

3:00 BREAK

3:30 Open Forum on Future Training Courses

4:15 – 5:00 TNI Committee Reports

Potomac

Session Moderator: Alfredo Sotomayer, Milwaukee Metropolitan Sewerage District

Technical Sessions: Friday, August 5

7:00 Continental Breakfast
Regency Foyer

Keynote Address
Potomac

8:00 Welcome: Robert Wyeth, The NELAC Institute

8:15 Simple, Smart, Sustainable – Preparing Your Environmental Lab for the Future
Suneet Chadha, Perkin Elmer

9:00 – 12:00 NEMC Analyzing Microplastics in the Environment
Arlington

Session Chairs: Tarun Anumol, Agilent Technologies and Shelly Walther, Los Angeles County Sanitation District

9:00 A New ASTM Method for Determination of Microplastic Particle Distribution, Size, Concentration, and Shape in Wastewater Samples Using a Dynamic Imaging Analyzer
William Lipps, Shimadzu Scientific Instruments

9:25 Analysis of Microplastics Using a Laser-Based IR Analyzer
Louis Tisinger, Agilent Technologies

9:50 Identification of Microplastics in Water by Pyrolysis Gas Chromatography Mass Spectrometry
Kurt Thaxton, GERSTEL GmbH

10:00 BREAK

10:30 Automated PY-GCMS Workflow for the Qualitative and Quantitative Analysis of Plastics of Diverse Sizes in Environmental Samples
Alan Owens, Shimadzu Scientific Instruments

11:00 New Insights from TD-GC-MS Data on Microplastics in Salt Samples
Jan Peter Mayser, Markes International GmbH

11:30 Sample Planning Considerations for Environmental Microplastics Studies: The Path Forward Using New ASTM Standards for Microplastics
Harry Allen, USEPA Region 9

9:00 – 12:00 NEMC Going on from Here: Citizen Science, Community Science and/or Local Research
Prince William

Session Chairs: Leon Vinci, Health Promotion Consultants and Mike Pascucilla East Shore District Health Dept.

9:00 Going on from Here: Citizen Science, Community Science, and/or Local Research?
Leon Vinci, Health Promotion Consultants

9:30 Climate Impacts, Water Quality and Citizen Science in Coastal Southern Connecticut: A Review of Factors Supporting Practical Public Health Engagement
Michael Pascucilla, East Shore District Health Department

10:15 BREAK

10:30 Grass Roots Perspective on the Chesapeake Bay Oyster Reef Recovery Initiative
Cherie Santos-Wuest, Celadon Venture Advisors, LLC

11:00 From Dashboard to the Bay
Marcos Pena, GreenPlanet Waterways Restorations

Technical Sessions: Friday, August 5

9:00 – 12:00 NEMC Shale Oil & Gas

Fairfax

Session Chairs: Kesavalu Bagawondoss, SGS and Dave Gratson, Environmental Standards

9:00 Difficulties with Accurately Quantifying Radionuclide Activities in Oil and Gas Wastewater Utilizing Current Methodology
Mark McNeal, ACZ Laboratories, Inc.

9:30 Automatic TIC/TOC Determination by TOC Difference Method in Hydrophobic Shale Sands
Siqi Sun, Analytik Jena US

10:00 BREAK

10:30 Stone Soup
Ryan Hall, NGL Energy Partners

11:00 Analysis of Trace Water in Liquefied Petroleum Gas
Allison Mason, Shimadzu Scientific Instruments

11:30 An Improved Rapid Dissolved Gas Analysis
Ian Shaffer, Shimadzu Scientific Instruments

Training Course

9:00 - 12:00 Understanding Microbiology (Part 1)

Tidewater

You must be registered for this course in order to attend.

This series will focus on microbiological testing of environmental samples. The series will not train to the TNI Standard, but rather will cover basic and advanced microbiological principals and how to implement requirements of Volume 1 Module 5 of the 2016 TNI Standard. The courses in this series will cover an (1) introduction to microbiological testing as well as testing techniques, (2) quality control, equipment/instrumentation verification, and media reagent preparation, and (3) in-depth information on microbiological methods and technologies. Analysts and assessors seeking to expand their knowledge beyond the Standard can do so by learning in-depth information on microbiological testing.

Part 1: Introduction to Microbiological Testing

This first course will provide participants with a general understanding of microbiological testing, techniques, method scopes and limitations, Quality Control, and technologies. Topics addressed will include:

- Microbiological Analytes
- Microbiological Sample Integrity
- Microbiological Lingo
- Microbiological Positive and Negative Controls
- Basic Microbiological Techniques Such as Serial Dilutions, Sterilization and Aseptic Technique
- Microbiological Test Methods Across Multiple Programs
- Microbiological Technologies and Associated Methods

Poster Presentations

Poster Presentations

2022 Poster Presentations

Monday, 5:00 pm – Wednesday, 3:30 pm

Independence Ballroom

Advances in High Resolution Mass Spectrometry and Its Emerging Environmental Applications

P1 A Consolidated Approach for Routine Analysis of Soil Contaminants Using GC-Orbitrap Mass Spectrometry
Andy Fordanel, Thermo Fisher Scientific

Analyzing Microplastics in the Environment

P3 Detection of Microplastics in Consumer Products with Single-Particle ICP-MS
Mollie Cyr, PerkinElmer Inc.

P4 Evaluation of Bioplastics Analysis by Pyrolysis-GC/MS
Jennifer Gundersen, USEPA ORD CEMM ACESD

Collaborative Efforts to Improve Environmental Monitoring

P5 Pesticide Quantitation with LC/MS/MS and GC/MS for 419 Compounds
Tom Dillon, PerkinElmer

Community Based Monitoring & the Role of Citizen Science

P6 Climate Impacts, Water Quality and Citizen Science in Coastal Southern Connecticut: A Review of Factors Supporting Practical Public Health Engagement
Michael Pascucilla, East Shore District Health Department

Drinking Water

P7 Determination of Trace Level Lead (Pb) in Drinking Water Using Mercury Free Electrode and Portable Instrument According to Requirement of USEPA Lead and Copper Rule
Jay Gandhi, Metrohm USA

P8 Extending the Quantitative Performance for Haloacetic Acids, Bromate, and Dalapon in Water Using an IC-MS/MS Workflow
Ed George, Thermo Fisher Scientific

P9 IC-MS Analysis of Perchlorate, Bromate, and Bromide in Drinking Water
Jay Gandhi, Metrohm USA

Instrumentation Focus: Reducing Interferences in ICP/MS

P10 Direct Analysis of Trace Elements in Seawater Using ICP-MS with Versatile Reaction Modes
Liyan Xing, PerkinElmer

P11 Overcoming Interferences in Challenging Sample Matrices Using ICP-OES
Weimin Yang, ThermoFisher Scientific

Poster Presentations

Metals Analysis and Remediation

P12 Analysis of Desalination Discharge Brines by ICP-OES
Mollie Cyr, PerkinElmer Inc.

P13 Characterization of Mercury Species Using HPLC-ICP-MS
Eve Kroukamp, PerkinElmer Inc.

P14 Characterization of Tin Species Using HPLC-ICP-MS
Eve Kroukamp, PerkinElmer Inc.

New Organic Monitoring Techniques

P15 Analysis of 6-PPD-Quinone in Environmental Waters
Ruth Marfil-Vega, Shimadzu Scientific Instruments

P16 Streamlined Polychlorinated Biphenyls Analysis Using Multiple Solvent Wash and Automated Injection of Internal Standards
Ruth Marfil-Vega, Shimadzu Scientific Instruments

P17 Validation of Method EPA625.1 and EPA608.3 Using Semi-Automated SPE
Ngoc Le, City of San Jose Environmental Service Department

Polyfluoroalkyl Substances (PFAS) in the Environment

P18 Analysis of Per-and Polyfluoroalkyl Substances (PFASs) in Aqueous, Solid, Biosolids, and Tissue Samples Using Weak-Anion Exchange SPE and LC-MS/MS Analysis According to EPA Method 1633
Abderrahim Abdelkaoui, United Chemical Technologies

P19 Analysis of PFAS Extractables in Millex® Syringe Filters Using LC/MS/MS
Lindsay Lozeau, MilliporeSigma

P20 Column Chemistry Considerations Affecting PFAS Selectivity for LC-MS/MS Workflows
Richard Jack, Phenomenex

P21 Comparison of PFAS Recoveries Between WAX/GCB vs. Dispersive GCB SPE Cartridge Formats
Richard Jack, Phenomenex

P22 Detection of Per- and Polyfluorinated Substances (PFAS) in Drinking Water Following EPA 533
Amanda Belunis, University of Maryland, Baltimore County

P23 Reference Materials for Per- and Polyfluoroalkyl Substances (PFAS)
Alix Rodowa, The National Institute of Standards and Technology

P24 Simultaneous Quantification and Screening of Per- and Polyfluoroalkyl Substances Using High Resolution Mass Spectrometry
Emily Parry, Agilent Technologies

P25 Use of Graphitized Carbon Black for Matrix Cleanup in the Analysis of Per- and Poly-fluoroalkyl Substances
Matthew Giardina, Agilent Technologies

P26 Validation studies of EPA Method 537.1 for Monitoring Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) in Drinking Water Using UHPLC with a Triple Quadrupole Mass Spectrometry
Mollie Cyr, PerkinElmer Inc.

Thank You !

With gratitude to all the volunteers who donate their time to make the Symposium a success!

NEMC

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Symposium Organizer
Jerry Parr, The NELAC Institute

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Earl Hansen, The NELAC Institute

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Michael Pascucilla, East Shore Health District
Patsy Root, IDEXX Laboratories
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Andrea Teal, Eurofins Environment Testing America
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Acronyms

AB	Accreditation Body
AC	NELAP Accreditation Council
CSDP	Consensus Standards Development Program
CSD EC	Consensus Standards Development Executive Committee
DW	Drinking Water
ESTCP	Environmental Security Technology Certification Program
FAC	Field Activities Expert Committee
FoPT	Field of Proficiency Testing
FSEA	Florida Society of Environmental Analysts
FSMO	Field Sampling and Measurement Organization
IEC	International Electrochemical Commission
IS	Interim Standard
ISO	International Standards Organization
LAB	Laboratory Accreditation Body Expert Committee
LASEC	Laboratory Accreditation System Executive Committee
NEFAP	National Environmental Field Activities Program
NEFAP EC	National Environmental Field Activities Program Executive Committee
NELAP	National Environmental Laboratory Accreditation Program
NGAB	Non–Governmental Accreditation Body
PT	Proficiency Testing
PTP	Proficiency Testing Program
PTPEC	Proficiency Testing Program Executive Committee
QS	Quality System
SERDP	Strategic Environmental Research and Development Program
SETAC	Society for Environmental Toxicology and Analytical Chemistry
SIR	Standard Interpretation Request
SOP	Standard Operating Procedure
SSAS	Stationary Source Audit Sample
TNI	The NELAC Institute*
VDS	Voting Draft Standard
WDS	Working Draft Standard
WET	Whole Effluent Toxicity

*NELAC is not an acronym.

Save the Date !

2023 Meetings

Forum on Environmental Accreditation
January 9-12, 2023
San Antonio, TX

THE NELAC INSTITUTE

https://nelac-institute.org

Environmental Measurement Symposium
July 31 - August 4, 2023
Minneapolis, MN

NEMC

https://envirosymposium.group