

Environmental Measurement Symposium

*“The Future Landscape
of Science”*

Preliminary Program

New Orleans, LA
August 6 –10, 2018

SYMPOSIUM SPONSORS



Agilent Technologies



A Waters Company

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Sigma



WELCOME

The 2018 Environmental Measurement Symposium, which is the combined meeting of the Forum on Environmental Accreditation and the National Environmental Monitoring Conference (NEMC), will be held at the Hyatt Regency in New Orleans, LA. The Symposium is co-sponsored by The NELAC Institute (TNI) under a cooperative agreement with the U.S. Environmental Protection Agency (USEPA). This year, the Symposium's theme is "The Future Landscape of Science." Some of the highlights for the week include:

- A special half-day general session focused on the conference theme;
- Over 180 oral and poster presentations 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;
- An exhibit program showcasing the latest innovations in environmental monitoring;
- An Innovative New Technology Showcase;
- Four special keynote presentations on topics of general interest;
- An open meeting of EPA's Environmental Laboratory Advisory Board. and
- Two training courses on Communicating Science and a training course on Radiochemistry.

For detailed information, visit the symposium website at <http://envmeasym.org>.

The Benefits of Attending

All Symposium attendees have the valuable opportunity to share new monitoring approaches and technologies, and contribute to discussions regarding regulatory issues and initiatives. As an attendee, you are able to:

- Have one-on-one discussions with key regulators about problems and issues facing the industry;
- Obtain the information you need to better plan for future capital purchases, research, and staffing levels;
- Learn how to save time and money when performing sampling and analysis techniques;
- Improve the quality and efficiency of your analyses; and
- Learn about new technologies and regulations.

What is the NEMC?

The National Environmental Monitoring Conference (NEMC) is the largest conference focused on environmental measurements in North America! The conference brings together scientists and managers from federal and state agencies, the regulated community, academia, and laboratory and engineering support communities. NEMC features presentations, posters, training, exhibits, and networking opportunities.

The technical program is organized by a committee of environmental experts from government, academia, and private industry to bring together a balance of technical and policy topics for each year's symposium that are of interest to all. The conference was initiated in 1985 as part of EPA's efforts to foster a partnership among the Agency, the regulated community, the public, state regulatory agencies, and the other members of the monitoring community.

For more information, go to <http://nemc.us> or @nemcus #NEMC2018.

What is the Forum on Environmental Accreditation?

The Forum on Environmental Accreditation (the Forum) is the principal conference for addressing policy and technical issues affecting the accreditation of environmental laboratories in addition to field sampling and measurement organizations. The Forum features open public meetings of all TNI committees to allow quality professionals, chemists, analysts, microbiologists, engineers, and managers from federal and state agencies; commercial, municipal, state and federal laboratories; and many others who are actively involved and interested in laboratory accreditation issues to review what has been done and participate in the efforts to establish a national program for environmental laboratories and field sampling and measurement organizations.

For more information, go to <http://nelac-institute.org>.

TECHNICAL PROGRAM

Each NEMC technical session consists of 4 to 8 oral presentations. The titles of the presentations, abstracts, and authors can be found on the NEMC website at <http://nemc.us>. The Forum sessions are primarily meetings of TNI committees. Details of the Forum meetings can be found at <http://nelac-institute.org>. All NEMC sessions and TNI meetings are open to all attendees.

Monday, August 6

8:00 – 8:15 **Welcome**

8:15 – 8:20 **Presentation of the 2018 Charlie Carter Award**

8:20 – 8:45 **Keynote Address**

9:00 – 12:00 **Concurrent Sessions**

NEMC: Academic Research Topics in Environmental Measurement and Monitoring

NEMC: Microbial Monitoring in Ambient Water

NEMC: Monitoring for Contaminants in Foods & Beverages

NEMC: New Environmental Monitoring Techniques for Organics (Session 1)

TNI: Assessment Forum-Early Implementation of the 2016 TNI Standard

TNI: Proficiency Testing Expert Committee (PTEC)

12:00 – 1:30 **Lunch On Your Own**

1:30 – 5:00 **Concurrent Sessions**

ELAB: Environmental Laboratory Advisory Board

NEMC: Changing the Paradigm for Water Pollution Monitoring

NEMC: Operational and Advocacy Issues Impacting the Environmental Laboratory Industry

NEMC: Topics in Shale Gas

TNI: Chemistry Expert Committee

TNI: Proficiency Testing Program Executive Committee (PTPEC)

5:30 – 7:00 **Opening Reception and Exposition**

Tuesday, August 7

- 8:00 – 5:00** **Poster Session and Exposition**
- 8:00 – 8:15** **Welcome**
- 8:15 – 8:45** **Keynote Address**
The Importance of Science and Monitoring in Restoring Ecosystems
Dr. Donald Boesch, University of Maryland Center for Environmental Studies
- 9:00 – 12:00** **Concurrent Sessions**
NEMC: New Environmental Monitoring Techniques for Organics (Session 2)
NEMC: Resolving Method Differences for Volatile Organics by GC/MS with Best Practices
NEMC: Spotlight on Method 6020 Instrumentation – ICP-MS Metals Analysis
NEMC: Strategic Environmental Research and Development Program (SERDP)
TNI: Mentor Session
TNI: Whole Effluent Toxicity Expert Committee
- 12:00 – 1:00** **Lunch Provided**
*The Rise and Disappearance of Southeast Louisiana, and
Filling the Bowl: How the New Orleans Area Flooded during Hurricane Katrina*
Interactive Graphics
Dan Swenson, Graphics Editor, The New Orleans Advocate
- 1:00 – 3:00** **Concurrent Sessions**
NEMC: Air Methods and Monitoring (Session 1)
NEMC: Citizen Science
NEMC: Forensic Environmental Chemistry
NEMC: Metals and Metals Speciation Analysis in Environmental Samples (Session 1)
TNI: Consensus Standards Development Program (CSDP) Executive Committee
TNI: Laboratory Accreditation Body Expert Committee (LABEC)
- 3:30 – 5:30** **Innovative New Technology Showcase and Reception**

INNOVATIVE NEW TECHNOLOGY SHOWCASE

Tuesday, August 7, 2018
3:30 – 5:30 pm

The Innovative New Technology Showcase allows up to twelve (12) organizations to showcase innovative new technologies such as sensors, sampling devices, personal monitoring devices, and other new or innovative approaches to environmental monitoring. The Showcase will feature:

- A poster board and table set-up in an interactive setting;
- A 5 minute platform speaking opportunity for all those attending the Showcase to hear about each technology; and
- A networking reception with attendees following the presentations.

Wednesday, August 8

8:00 – 5:00 **Poster Session and Exposition**

8:15 – 8:30 **Welcome**

8:30 – 12:00 **Plenary Session: The Future Landscape of Science**

Dr. Paul Gilman, Covanta
Janet Ranganathan, World Resources Institute
Dr. Beth Karlin, See Change Institute
Dr. Anton Simeonov, National Institutes of Health

12:00 – 1:30 **Lunch on Your Own**

OR

Pre-Register to Attend a Free Lunch Seminar with:



Agilent Technologies

Towards Safer Water: Advancements in the Analysis of Regulated and Emerging Contaminants in Water
Tarun Anumol, Agilent Technologies

OR



Perfluorinated Compound and PPCP Analysis by LC-MS/MSs
Chris Rattray, Dan Li, and Mike Chang, Restek Corporation

OR

Waters
THE SCIENCE OF WHAT'S POSSIBLE.™

Data (in)dependent Analysis of Environmental Toxicants by Atmospheric Pressure Gas Chromatography-Quadrupole Time-of-Flight Mass Spectrometry
Karl J. Jobst, McMaster University and Ontario Ministry of the Environment and Climate Change

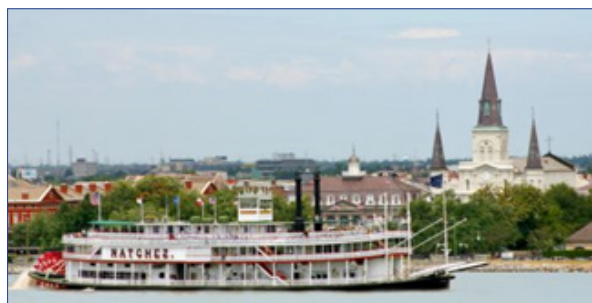
1:30 – 5:00 **Concurrent Sessions**

NEMC: Air Methods and Monitoring (Session 2)
NEMC: Challenges and Opportunities for Solid Phase Extraction
NEMC: Laboratory Informatics
TNI: Changes to the TNI Standard from the 2017 ISO/IEC Standard 17025

6:00 – 9:00 **Optional Social Event**

Dinner Jazz Cruise on the Steamboat NATCHEZ

Savor the beauty and romance of the New Orleans skyline aboard the last authentic steamboat on the Mississippi River featuring live jazz by the Grammy nominated “Dukes of Dixieland”. Registration required.



Thursday, August 9

8:00 – 8:15 **Welcome**

8:15 – 8:45 **Keynote Address**

Environmental Monitoring Because We All Live Downwind

Dr. Ann Marie Carlton, University of California, Irvine

9:00 – 12:00 **Concurrent Sessions**

NEMC: Characterization of Polyfluoroalkyl Substances in the Environment (Session 1)

NEMC: Field Sampling, Measurement, and Sensor Technology

NEMC: Metals and Metals Speciation Analysis in Environmental Samples (Session 2)

NEMC/TNI: NEMC Steering Committee and Conference Planning

TNI: Laboratory Accreditation System Executive Committee (LASEC)

TNI: National Environmental Laboratory Accreditation Program (NELAP) Accreditation Council

TNI: Quality Systems Expert Committee

12:00 – 1:00 **Lunch Provided**

1:00 – 5:00 **Concurrent Sessions**

NEMC: Characterization of Polyfluoroalkyl Substances in the Environment (Session 2)

NEMC: Collaborative Efforts to Improve Environmental Monitoring (Session 1)

NEMC: Data Quality, Management, and Review

NEMC: Government Public Health and Private Environmental Laboratory Partnerships

TNI: Field Activities Committee

TNI: National Environmental Field Activities Program (NEFAP) Executive Committee

TNI: Microbiology Expert Committee

TNI: Stationary Source Audit Sample (SSAS) Expert Committee

TNI: General Session (Committee Chairs Report)

Friday, August 10

8:00 – 8:15 **Welcome**

8:15 – 8:45 **Keynote Address**

Evidence-Based Approaches to Curriculum Reform and Assessment

Dr. Melanie Cooper, Michigan State University

9:00 – 12:00 **Concurrent Sessions**

NEMC: Collaborative Efforts to Improve Environmental Monitoring (Session 2)

NEMC: Overcoming Legacy Obstacles with Innovative Approaches

NEMC: Topics in Drinking Water

TNI: Advocacy Committee

TRAINING

Science Communication 101 – Option A

Anti-science rhetoric is on the rise. Policymakers often fail to grasp the research necessary to make informed decisions in the best interests of their constituents. But empirical data suggest that good science communication both empowers citizens and benefits the careers of scientists. Effective science communication skills are not imparted through lecture, but rather through the act of encouraging participants to practice, with supportive coaching, rehearsal, and feedback from both facilitators and peers. This half-day workshop helps scientists develop communication skills and put those skills into action. The topics for this session include:

- Science Communication Overview;
- “At the Block Party” (practice/feedback session);
- Making your Point(s): Delivering Better Presentations and The Power of Visuals;
- We’re Here to Help: Working with your News Office/Public Information Officer to Advance Your Visibility; and
- I’m Ready for my Close-Up: How to Nail Media Interviews.

Date and Time: Wednesday, August 8, 1:00 pm – 4:30 pm

Instructor: Jory Weintraub, Duke Initiative for Science and Society

Fee: \$150

Science Communication 101 – Option B

Anti-science rhetoric is on the rise. Policymakers often fail to grasp the research necessary to make informed decisions in the best interests of their constituents. But empirical data suggest that good science communication both empowers citizens and benefits the careers of scientists. Effective science communication skills are not imparted through lecture, but rather through the act of encouraging participants to practice, with supportive coaching, rehearsal, and feedback from both facilitators and peers. This half-day workshop helps scientists develop communication skills and put those skills into action. The topics for this session include:

- Science Communication Overview;
- “At the Block Party” (practice/feedback session);
- Getting Social-Using Social Media to Communicate Your Science; and
- Controversy? What Controversy? (Communicating Controversial Science in Non-Controversial Ways).

Date and Time: Thursday, August 9, 1:00 pm – 4:30 pm

Instructor: Jory Weintraub, Duke Initiative for Science and Society

Fee: \$150

Understanding Radiochemistry Testing and the TNI 2016 Standard – ASTM D7283 and EPA 906.0 (Liquid Scintillation Counting)

Using ASTM Method D7283, ASTM Standard Test Method for Alpha and Beta Activity in Water By Liquid Scintillation Counting, and EPA Method 906.0, Tritium in Drinking Water, as examples, this course will provide participants with a general understanding of the theory behind the radioanalytical techniques used, and applicable requirements of TNI 2016 Standard Volume 1 Module 6 (V1M6). A mixture of theory-lecture and interactive exercises using real laboratory data examples will help participants see how analytical processes translate into actions, results, and records that one might encounter in a typical radioanalytical laboratory. It will also address typical challenges that may be encountered. This class will be of benefit both to radiochemistry laboratorians and radiochemistry assessors. Topics addressed will include:

- Method scope, application, and limitations;
- Radioactive decay;
- Radiochemical preparation;
- Sample test source preparation;
- Liquid scintillation counter (LSC) set-up, performance checks, efficiency and cross-talk calibrations, and background determinations;
- Calculation and reporting of results and associated statistics (i.e., counting uncertainty vs. combined uncertainty, critical level vs. minimum detectable concentration vs. SDWA Detection Limit, chemical yield);
- Common problems and challenges encountered with these methods; and
- TNI Standard Volume 1, Module 6 requirements as they relate to the two methods.

Date and Time: Friday, August 10; 8:00 am – 5:00 pm

Instructor: TNI Radiochemistry Expert Committee

Fee: \$195

EXHIBITORS

(Preliminary List)

A2LA	LGC Standards
Absolute Standards, Inc.	Markes International
Agilent Technologies	Meinhard
ANAB / ANSI-ASQ National Accreditation Board	Metrohm USA
Anton Paar	MilliporeSigma
Autoscribe Informatics	NSI Lab Solutions
Biotage	OI Analytical
Cambridge Isotope Laboratories, Inc.	Orsat
CEM Corporation	o2si
Elemental Scientific	PerkinElmer
Entech Instruments	Perry Johnson Laboratory Accreditation, Inc.
Environmental Express	Phenova, a Phenomenex Company
ERA, A Waters Company	Pickering Laboratories
ESS	PRōMIUM
EST Analytical	QEC
Ethosoft, Inc.	Restek Corporation
FIA Lab Instruments, Inc.	SampleServe.com
Fluid Management Systems	SCIEX
Handby Environmental – OMG Solutions	SCP Science
High Purity Standards	SEAL Analytical, Inc.
HORIZON LIMS	Shimadzu Scientific Instruments
Horizon Technology	Skalar, Inc.
IDEXX Laboratories	Spectro Analytical Instruments
INFICON	SPEX Certiprep
International Accreditation Service	TECTA-PDS
Khemia Software	Thermo Fisher Scientific
Lachat Instruments (A Hach Company Brand)	Waters Corporation

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.

Exhibit Hours

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

For more information, contact the NEMC Exhibit Coordinator

Joel Holtz

joel.holtz@nelac-institute.org

LODGING

Hyatt Regency New Orleans

601 Loyola Avenue
New Orleans, LA 70113

504-561-1234

Special advance registration rates of \$109 per night (single) or \$134 (double)
can be obtained by calling the hotel directly before July 6, 2018

or using our secure on-line registration system:

<https://aws.passkey.com/go/NELACSymposium2018>.

<https://neworleans.regency.hyatt.com>

for general hotel information only

CONFERENCE REGISTRATION

To Register, go to <https://iattend.net/EventHome?id=ems18>.

You can register on-line or complete the registration form and send it to

The NELAC Institute

PO Box 2439
Weatherford, TX 76086
FAX: 817-423-6777
Phone: 817-598-1624

Email: suzanne.rachmaninoff@nelac-institute.org

DINNER CRUISE ON THE STEAMBOAT NATCHEZ

Join us for a dinner jazz cruise on the Steamboat Natchez on Wednesday evening.

Tickets for this cruise can be purchased from a link you will see when you complete your registration or by going to <https://iattend.net/EventHome?id=boat18>.

Cruise Highlights:

Private Charter with conference attendees only

Breathtaking view of the city

Creole buffet dining including gumbo, jambalaya, shrimp creole,
red beans and rice and bread pudding among many choices

Featuring live jazz by the Grammy nominated "Dukes of Dixieland"

Museum quality Engine Room

Tickets for this event are only \$45 per person and include dinner.

The price for this event for the public is \$81!!!

Boarding is from 6:00 pm to 7:00 pm
and the cruise goes from 7:00 pm to 9:00pm.



STEAMBOAT NATCHEZ

REGISTRATION FORM

Environmental Measurement Symposium / August 6 – 10, 2018 / New Orleans, LA

Name: _____

Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Country: _____

Phone: _____

Email: _____

Classification

Pick the Category that best describes your organization.

- ☐ Academic
- ☐ Engineering or Consulting Firm
- ☐ Government Agency (non-laboratory)
- ☐ Laboratory, Commercial
- ☐ Laboratory, Government (Municipal, State, Federal)
- ☐ Regulated Industry
- ☐ Vendor/Supplier (LIMS Providers, PT Providers, etc.)
- ☐ Other

Special Needs:

(e.g., dietary, hearing devices, etc.)

- ☐ This is my first time to attend these meetings.
- ☐ I will be accompanied by a guest or my spouse.

Early Bird Fees (before June 9)			Standard Fees			
Registration Type ¹	Full Conference	Daily	Full Conference	Daily	Select Day(s)	Total
Attendee Registration	<input type="checkbox"/> \$495	<input type="checkbox"/> \$225	<input type="checkbox"/> \$545	<input type="checkbox"/> \$245	M T W Th F	
Participant ²	<input type="checkbox"/> \$395	<input type="checkbox"/> \$195	<input type="checkbox"/> \$445	<input type="checkbox"/> \$215	M T W Th F	
EPA Employee	<input type="checkbox"/> \$325	<input type="checkbox"/> \$160	<input type="checkbox"/> \$350	<input type="checkbox"/> \$180	M T W Th F	
Student	<input type="checkbox"/> \$195	<input type="checkbox"/> \$ 75	<input type="checkbox"/> \$215	<input type="checkbox"/> \$ 75	M T W Th F	
Friday Only (Attendee or Participant)				<input type="checkbox"/> \$135		
Late Fee (After July 16)			<input type="checkbox"/> \$ 75	<input type="checkbox"/> \$ 75		
Other Events and Activities (See brochure for more details)					Fee	
Training: Science Communication 101 (Wednesday)					<input type="checkbox"/> \$150	
Training: Science Communication 101 (Thursday)					<input type="checkbox"/> \$150	
Training: Understanding Radiochemistry Testing					<input type="checkbox"/> \$195	
Agilent Wednesday Luncheon (you must pre-register to attend)					<input type="checkbox"/> Free	
Restek Wednesday Luncheon (you must pre-register to attend)					<input type="checkbox"/> Free	
Waters Wednesday Luncheon (you must pre-register to attend)					<input type="checkbox"/> Free	
Wednesday Night Event: Natchez Boat Cruise					<input type="checkbox"/> \$ 45	
Join or Renew TNI Membership					Fee	
One-year					<input type="checkbox"/> \$ 75	
Three-years					<input type="checkbox"/> \$200	
					Total Due	

Payment Options

- ☐ Purchase Order #: _____
- ☐ Pay at Event
- ☐ Check: Make payment to The NELAC Institute
- ☐ Visa ☐ Master Card ☐ American Express

Card #: _____

Expires: _____

Name: _____

Print name as it appears on the card

Tax ID #: 81-0554715

Send Payment & Registration to:

The NELAC Institute

PO Box 2439

Weatherford, TX 76086-0822

817-598-1624 FAX 817-423-6777

or email to: suzanne.rachmaninoff@nelac-institute.org

Notes:

1. Symposium registration includes participation in all meetings, all printed materials, continental breakfasts, and lunches on Tuesday and Thursday. Three free vendor-sponsored lunches are also available on Wednesday.

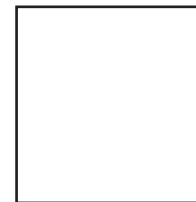
2. A Participant is an NEMC Session Chair, a speaker at NEMC, or a member of a TNI Committee or Board.

CANCELLATION: If you cannot attend, notification must be received by July 31. You may either send a substitute or receive a refund, less a \$75 administrative fee.



The NELAC Institute
PO Box 2439
Weatherford, TX 76086-0822

Return Service Requested



**We are pleased to invite you to the
Environmental Measurement Symposium,
a combined meeting of the
Forum on Environmental Accreditation
and the
National Environmental
Monitoring Conference (NEMC).
August 6 – 10, 2018
New Orleans, Louisiana**