



# Florida Society of Environmental Analysts Spring Meeting and Technical Session October 23-25, 2019

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## Wednesday October 23, 2019 Concurrent Workshop Sessions

8:00am Registration	Foyer
10:00am – 6:30pm Exhibitor area open	Preserve A, Foyer
12:00 – 1:00pm Lunch (provided)	Mangrove Deck
5:00-6:30pm Reception in Exhibit area	Preserve A, Foyer

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### Wednesday Morning Sessions 8:30am – noon

### Break in Exhibit Area 10:00-10:30am

#### ***Session 1 - Electronic Field Documentation: Why the Right Time to Switch is Now ~0.35 CEUs- Josh Gravlin, Senior Environmental Specialist, Collier County Pollution Control (Preserve B)***

Switching your Water Quality Sampling program to electronic documentation is a challenge. Learn how Collier County made the switch and how making the switch will benefit your program. This workshop will cover costs, challenges, realized benefits, as well as guidance on how to begin the process. A refresher course on FD1000, with a focus on how this SOP relates to electronic documentation, will start the workshop. The refresher will be followed with an in depth look at program that has been using electronic documentation for five years. Workshop attendees are encouraged to ask questions and seek guidance on how they can begin the process of converting their program.

#### ***Session 2 – PART 1 Real Talk - Are You Overthinking Your QA Program? An interactive workshop aimed at addressing some tips and tricks. ~0.35 CEUs – Robin Cook - TNI Microbiology Expert Committee Chair; Valerie Slaven – TNI Chemistry Expert Committee Chair; Michelle Wade – A2LA WorkPlace Training (Preserve C)***

It is not just about checking off a checklist. Understanding the “whys” behind the requirement is important. Florida has been using the NELAC/TNI standard in some form since 1999. As such, Florida programs are more mature. As people are retiring or moving up and on, some of those questions that were seen in the early days of the program are coming around again. Valerie, Michelle and Robin have been involved with the development of the currently used 2016 TNI Standard as part of Chemistry, Quality Systems and Microbiology Committees respectively and have a perspective that can help answer your “whys”. Bring us your questions and let’s see how we can help you keep your QA program effective and robust. **(PART 1 is a partial repeat from Spring Meeting and will cover primarily micro and Quality Systems. Chemistry and interactive exercises are in afternoon – Session 4)**

#### ***Session 3 – Taking the Pulse of Your Quality Management System ~0.35 CEUs – Silky Labie, ELCAT (Beacon Room)***

Every environmental laboratory in Florida must have a Quality Management System (QMS) – it’s required. But how well is your system working? Do you have problem areas that don’t seem to go away? Do you have repeat deficiencies? Do you have troubles with suppliers? Are your clients constantly calling you about results? Is the system managing you or are you managing the system? This workshop will explore ways of structuring and using your QMS so that it works for you.

### 12:00 – 1:00pm LUNCH PROVIDED

### Wednesday Afternoon Sessions 1:00 – 5:00pm

### Break in Exhibit Area 2:30-3:15pm

#### ***Session 4 – PART 2 Are You Overthinking Your QA Program? An interactive workshop aimed at addressing some tips and tricks. ~0.40 CEUs – Robin Cook - TNI Microbiology Expert Committee Chair; Valerie Slaven – TNI Chemistry Expert Committee Chair; Michelle Wade – A2LA WorkPlace Training (Preserve C)***

Part 2 of this workshop will focus on Chemistry and interactive discussions. For detailed description see Session 2 above.

#### ***Session 5 – Surface Water Sampling, Representativeness and Related Intricacies ~0.40 CEUs – Vance Reiman, JEA (Preserve B)***

This workshop will be an interactive targeting of surface water sampling in accordance with the FDEP SOPs. This will include refined sampling methods to overcome obstacles that may occur, ensuring proper collection of representative surface water samples. It will also highlight vigilant maintenance of internal SOPs and controlled documents for continued quality data, and to be more advantageously suited for audits. It will be composed of practical tips and tricks based on experience from the instructor.

### 5:00-6:30pm Reception in Exhibit Area with Hors d’oeuvres and Door Prizes

## Thursday October 24, 2019 Technical Sessions in the Preserve B&C Ballrooms 0.75 CEUs

8:00am Registration Opens	Foyer	
8:00 – 8:30am Continental Breakfast	Foyer	
8:00am – 3:15pm Exhibitor area open	Preserve A, Foyer	
12:00 – 1:00pm Lunch (provided)	Mangrove Deck	
7:30-10:30pm Scholarship Fundraiser & Social	Preserve A, Foyer	40 <sup>th</sup> Anniversary Celebration

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**8:30 – 8:45am** *Opening Remarks – Robin Cook, FSEA President*

**8:45 – 9:30am** *Microbiology PTs and Certified Reference Materials - Behind the Scenes – Melissa Ross, NSI Solutions*  
Microbiology Proficiency Testing (PT) Studies for Water. Reference Materials (RMs) and Certified Reference Materials (CRMs) for Microbiological Quality Assurance (QA). Using RMs and CRMs to improve data quality

**9:30-10:15am** *Ammonia Colorimetric Testing by Gas Diffusion on Segmented Flow Analyzers– Sarah McFaul (FKA Leibenguth), SEAL Analytical*

The use of gas diffusion for ammonia colorimetric testing has become more popular over the last several years as an alternative to distillation. We will discuss the principle behind gas diffusion and how gas diffusion compares to distillation. We will also discuss EPA acceptance for the ammonia by gas diffusion method, maintenance and care for the system and what types of samples the method is suitable for. The ammonia colorimetric reaction following gas diffusion process will also be discussed. For the colorimetric reaction, topics will include the principle of reaction, reagent preparation and storage, interferences associated with the method, and additional troubleshooting tips.

**10:15–11:00am** *BREAK in Exhibit Area – Preserve A and Foyer*

**11:00-11:45am** *Innovative Methods for Quantifying Indicator Bacteria in Different Water Matrices – Shawn Dubois, IDEXX*

Utilities and private laboratories are required to test for fecal coliforms / *E. coli* in wastewater and *E. coli* and enterococci in surface waters. Methods such as Multiple Tube Fermentation (MTF) and Membrane Filtration (MF) require confirmations and can take 3 days. Time to results is critical. Enzymatic tests, such as Colilert-18 and Enterolert, require no confirmations with results obtained in 18 or 24 hours. The presentation will include: Brief intro to water microbiology, Methods (MTF and MF), Colilert-18 and the Quanti-Tray system (a quantitative method yielding results, without dilutions, up to 2400 MPN/100mL), QC requirements, and Q&A.

**11:45am-noon** *FSEA Business Meeting, Presentation of Fredrick C. Bothe Scholarship for Environmental Studies*

**12:00-1:15pm** *LUNCH provided on the Mangrove Deck*

**1:15-2:00pm** *Comparing Laboratory Total Organic Carbon (TOC) Techniques – Zach Swilling, Xylem*

The determination of organics in water by Total Organic Carbon (TOC) analysis is widely used as an indicator of water cleanliness. TOC analysis is relied upon in a variety of applications ranging from ultrapure water in the electronics and pharmaceutical industries, to drinking water safety and municipal and industrial wastewater discharge. The primary methodologies for TOC determination include Heated Persulfate, UV/Persulfate, and High-Temperature Combustion Oxidation. The other critical step in the measurement is the detection of carbon dioxide that is generated in the oxidation step. This presentation will discuss the advantages and challenges of different TOC methods and how laboratories can achieve better results.

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- 2:00-2:45pm** *Emerging Water Quality Topics: solutions for monitoring Per- and Polyfluoroalkylsubstances (PFAS), Harmful Algae Blooms (HABs) and more– Ruth Marfil-Vega, PhD, Shimadzu*  
Commercial laboratories, water utilities, public agencies, etc... need to respond to increasing demands for newer, faster, more sensitive analytical methods and address concerns regarding unregulated contaminants (e.g. PFAS, microplastics, ...) and unexpected contamination events like Harmful Algae Blooms (HABs). Shimadzu has a large portfolio of analytical instrumentation and data processing tools suitable for the fast implementation of new monitoring workflows. This presentation will cover: 1) an overview of solutions for the analysis of PFAS by LC/MS/MS (according to EPA 8327 and 537.1) and 2) the description of a comprehensive tool set for monitoring water quality parameters impacting the formation of HABs and related contaminants (i.e. toxins, taste and odor, ...).
- 2:45-3:15pm** *BREAK in Exhibit Area – Siesta Key, Longboat Key and Foyer*
- 3:15-4:00pm** *Best Practices for Reporting and Data Qualifiers – Valerie Slaven, Valerie Slaven Consulting*  
This presentation will discuss various aspects of reporting and the use of data qualifiers.
- 4:00-4:20pm** *Regional Meet and Greet – break out into small groups by Region to meet your Regional Director and other region members, offer suggestions for topics you would like to see in your region.*
- 4:20-5:05pm** *Updates from FDOH – Vanessa Soto-Contreras, Florida Department of Health*
- 5:05-5:20pm** *Door Prize Drawings*
- 7:30-10:30pm** *Join us for a special evening to celebrate our 40<sup>th</sup> Anniversary! See our website for more information on our Costume (Optional) Disco/Punk Dance Party and Game Night!*

## Friday October 25, 2019 Regulatory Sessions in the Sand Key Ballroom ~0.45 CEUs

8:00am Registration Opens	Foyer
8:00am – 8:30am Continental Breakfast	Foyer
10:15-10:50am Break	Foyer

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### 8:30-9:30am *Effective Internal Audits – Michelle Wade – A2LA WorkPlace Training*

Internal Audits are not just a requirement of the standard – but can be a very useful tool for an environmental laboratory to determine where problems and opportunities for improvement are in their laboratory. Course Summary: A course designed for laboratories (particularly small laboratories and municipalities) as a primer on internal audits, with tips and tricks on how to efficiently perform their internal audits for compliance with the TNI Standard, and what to do with the outcomes.

### 9:30-10:15am *Risk Based Thinking – Melanie Ross, ANAB*

The concept of risk-based thinking is not new to laboratory compliance, but in the past has been incorporated in part by specificity of requirements in the standard. The process approach to many ISO/IEC 17025:2017 requirements now gives the laboratory the ability to control the approach through risk-based thinking. By defining risk-based thinking and identifying standard requirements this course will assist accredited laboratories in applying the approach successfully. This course presents an introduction to the ISO/IEC 17025:2017 concept of risk-based thinking. Outline: Definition of risk-based thinking, standard requirements, application of risk-based thinking in the laboratory, what to expect during an assessment. Target audience: Accredited laboratories or those interested in complying with ISO/IEC 17025:2017

### 10:15-10:50am *BREAK in foyer*

### 10:50-11:35am *Updates from FDEP – Nia Wellendorf or Jennifer Claypool*

### 11:35am-1:00pm *Regulatory Forum*

This session will allow attendees to submit questions in advance for our panel to answer. Typical questions include those related to laboratory accreditation, standards, regulatory interpretations and data issues. **Please e-mail your questions to [secretary@fsea.net](mailto:secretary@fsea.net) by October 21, 2019 so our panel has time to review the questions and prepare their answers.** If time allows, questions may be asked from the floor.

#### **Panel members:**

**Nia Wellendorf or Jennifer Claypool – FDEP**

**Robin Cook – TNI Microbiology Expert Committee Chair**

**Valerie Slaven -TNI Chemistry Expert Committee Chair**

**Vanessa Soto-Contreras – FDOH**

**Save the Date for the 2020 Spring Meeting – May 20-22, 2020  
at the Sand Key Marriott in Clearwater Beach!**