



# Florida Society of Environmental Analysts 2020 VIRTUAL Fall Conference

## October 20-23, 2020

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### Day 1 - Tuesday October 20, 2020 Workshop Webinars

#### Tuesday Morning Session 8:15am – noon (Break 10:20-10:30am)

**8:15-8:30am**      *Opening Remarks and WebEx instructions – Robin Cook, President FSEA and Cathie Catusus, FSEA Contracted Mgr.*

**8:30am-noon**      *Workshop 1 - Monitoring Wells: There's a lot more to it than just sampling! ~0.35 CEUs – Vance Reiman, JEA*  
Groundwater sampling can prove to be one of the most complex forms of sampling in an environmental sampler's career. The goal of this workshop aims to address the entirety of what goes into collecting a representative groundwater sample. Complex issues including that of the various types of groundwater events (NPDES, RCRA, etc.), pre-sampling activities, adhering to the DEP Groundwater Sampling SOP, Field QC and why it's necessary, the importance of prudent documentation, and how the end data is used. This will be an interactive workshop engaging the audience- where we can collaborate together to assist one another. Bring your questions and be ready to leave with a better grasp of Monitoring Wells! (Presentation will include actual demonstration of monitoring well sampling)

#### Tuesday Afternoon Session 1:00 – 4:45pm (Break 3:00-3:10pm)

**1:00-1:15pm**      *Opening Remarks and WebEx instructions – Robin Cook, President FSEA and Cathie Catusus, FSEA Contracted Mgr.*

**1:15-4:45pm**      *Workshop 2 – Calibrations and MDLs ~0.35 CEUs – Mei Beth Shepherd and Michael Shepherd, Shepherd Technical Services* NOTE: this session will compliment the session with Michelle Wade and Valerie Slaven on Wednesday October 21, 2020  
Have you tried to figure out what calibration type you should be using? Do you know how many points your calibration curve needs to have? What about dropping points? Can you drop points or better yet replace them? Do you know what the 2016 standard includes regarding Calibration? Have you figured out the new MDL procedure? Do you have your MDLs calculated? Do you know what you have to look at each year to verify your MDLs? Are your LOQs appropriate? Come join us for a half day session where we explore all of these questions and more regarding Calibrations and MDLs.

### Day 2 - Wednesday October 21, 2020 Workshop Webinars

#### Wednesday Morning Session 8:15am – noon (Break 10:20-10:30am)

**8:15-8:30am**      *Opening Remarks and WebEx instructions – Robin Cook, President FSEA and Cathie Catusus, FSEA Contracted Mgr.*

**8:30am-noon**      *Workshop 3 – Beyond the FDEP SOPs – Taking Your Field Quality System to the Next Level – What it takes to get to the NEFAP standard. ~0.40 CEUs– John Moorman / SFWMD; Silky Labie / Environmental Laboratory Consulting and Technologies; Katie Strothman / Sanders Laboratories; Josh Gravlin / Collier County Pollution Control; Vance Reiman and Nick Evans / JEA.*

This workshop explores what it takes to improve your current field quality system and then go beyond the FDEP SOPs to meet the National Environmental Field Activities Program (NEFAP) standard. The first part of the workshop will explore the differences between the FDEP SOP requirements and the NEFAP standard. The second part of the workshop will be a discussion of the benefits and challenges of obtaining and keeping Field Sampling and Measurement Organization (FSMO) accreditation. This latter section will include representatives from the three Florida FSMOs currently accredited to the NEFAP standards: Sanders Laboratories, JEA and Collier County Pollution Control.

## Day 2 (continued) - Wednesday October 21, 2020 Workshop Webinars

### Wednesday Afternoon Session 1:00 – 4:45pm (Break 3:00-3:10pm)

**1:00-1:15pm** *Opening Remarks and WebEx instructions – Robin Cook, President FSEA and Cathie Catusus, FSEA Contracted Mgr.*

**1:15-4:45pm** *Workshop 4 – 2016 TNI Standard: Practical Math ~0.40 CEUs –Valerie Slaven, PDC Laboratory and Michelle Wade, A2LA Workplace Training. NOTE: this session will compliment the Tuesday session with Shepherd Technical Services.*

As laboratories in Florida work diligently to implement the 2016 TNI Standard assessors are finding that the labs are often struggling with the new MDL and Calibrations requirements in the V1M4. This Practical Math workshop will work through these requirements in a course loaded with examples. Make sure to have your calculators and any data that you are struggling with. Course Summary: A half day session that will include calculation examples for MDL, including MDLb, and Relative Error Calculations to meet the new requirements in the 2016 TNI Standard.

## Day 3 Thursday October 22, 2020 Technical Session #1 Webinar

**8:15-8:30am** *Opening Remarks and WebEx instructions – Robin Cook, President FSEA and Cathie Catusus, FSEA Contracted Mgr.*

**8:30 – 9:15am** *Does Laboratory Accreditation Make a Difference? – Steve Arms, TNI Advocacy Committee Chair*  
Since its inception, individuals active in the National Environmental Laboratory Accreditation Program (NELAP) have struggled to try and find information to convince others that the program improves data quality. Over the years, various surveys and studies have been conducted to try and prove this. However, the problem has been, and always will be, that we never know the true concentration of a contaminant in a sample. All measurements are only estimates of the true concentration, and quality control data does not directly correlate with the measurement of the actual contaminant. In 2019, TNI's Advocacy Committee initiated a new effort as a result of comments received at a special session, *The Value of Accreditation*, in 2019 in Jacksonville, FL. In this session, in which the premise was to pilot a study to document data quality improvement, the focus shifted to an approach documenting improved laboratory performance and trust in the data provided by accredited laboratories. TNI scheduled two sessions at the meeting in California in February 2020 to pursue two topics. The first topic was to have laboratories provide specific examples of how they improved as a result of accreditation. The second topic focused on looking at problems discovered by laboratory assessors that led to data quality, trust, or laboratory performance issues. This presentation will summarize the outcomes from these two sessions and provide real-world examples of why laboratory accreditation to the TNI standard makes a real difference.

**9:20-10:05am** *When Every Peak Counts: A Practical Guide to Reducing Contamination and Eliminating Error in the Analytical Laboratory – Patricia Atkins, SPEX CertiPrep*  
Operator, environmental and method errors often include sources of contamination. In an increasing more exacting analytical landscape in pursuit of parts per billion analytes, it is very important not only to understand the sources of error and contamination but how to reduce them. During the dawn of analytical instruments, the laboratories tested for a select number of compounds or elements at parts per thousand levels. Modern instrumentation now has increased the number of compounds and elements to be quantitated and lowered the analytical threshold to sub-ppb levels where one ppb is equivalent to one second in 32 years! In this type of testing environment even small ppb levels of contamination can cause large errors in quantitation. We will look at all of the most common sources of contamination and error in an analytical process from the water used in the laboratory to the inherent mistakes and error caused by laboratory equipment and operators.

**10:10-10:55am** *SIRs: Behind the Scenes – Paul Junio, TNI Consensus Standards Development Committee Chair*  
Standard Interpretation Requests are questions submitted to TNI that are hoped to clarify the Standard. Hopefully, they are written as 'yes' or 'no' questions. Since that rarely happens, this discussion is a behind the scenes look at the process for how SIRs are handled within TNI. The presenter hopes to offer some tips for how to make this work for you, and reminders of how to guarantee that they won't work!

**10:55am-11:10** *FSEA Business Meeting, Installation of Officers*

**11:15-12:00pm** *Updates from FDOH – Dr. Carl Kircher, Florida Department of Health*

### Day 3 Thursday October 22, 2020 Technical Session #2 Webinar

- 1:15-1:30pm** **Opening Remarks and WebEx instructions – Robin Cook, President FSEA and Cathie Catusus, FSEA Contracted Mgr.**
- 1:30-2:20pm** **Effective Internal Audits – Michelle Wade, A2LA Workplace Training (repeat from Fall 2019 meeting)**  
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 45 minute 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.
- 2:25-3:45pm** **WIN Data – Tommy Adams, WIN Coordinator - FDEP**  
Does your lab enter surface water data into WIN? Does your lab need to enter surface water data into WIN? This informational session will provide an overview of the WIN database and what labs need to do to enter their data.

### Day 4 Friday October 23, 2020 Technical Session #3 Webinar

- 8:15-8:30am** **Opening Remarks and WebEx instructions – Robin Cook, President FSEA and Cathie Catusus, FSEA Contracted Mgr.**
- 8:30-9:15am** **When BOD Goes Wrong – David Smith, Environmental Express**  
No BOD analyst ever wants to hear the words “QC failure” in reference to their testing. While no set of products can guarantee perfect results, you can learn what to do when problems arise. This session will help you learn ways to improve your testing quality and how to narrow the source of problems. We will cover a range of topics from picking your source water to choosing dilution volumes and interpreting sub-optimal results.
- 9:20-10:05am** **Good Practices for pH Measurements and Acid-base Titrations – Matt Eby, Mettler-Toledo**  
In this session, you will learn the proper selection, calibration, use, and troubleshooting of pH sensors used for pH measurements as well as Acidity and Alkalinity titrations. Learn the impacts of CO<sub>2</sub>, temperature and other influences, as well as how to spot and avoid them through good practices, improved policies and pH meter, sensor and titrator innovations.
- 10:10-10:55am** **Colorimetric Inorganic Ions on Discrete and Segmented Flow Analyzers – Sarah McFaul, SEAL Analytical**  
There are several options for running anions on discrete and segmented flow analyzers that are EPA approved. This discussion will include the principle of these methods, how the analysis takes place, method stability, applicable sample types, reagent preparation and storage, reaction interferences, as well as other considerations associated with these methods.
- 11:00-12:00pm** **Updates from FDEP (stay tuned to our website for more information) – FDEP**

**SAVE THE DATE FOR THE 2021 SPRING MEETING AT THE MARRIOTT SANDKEY IN  
CLEARWATER BEACH – MAY 26-28, 2021**