

Florida Society of Environmental Analysts

Spring Meeting and Technical Session May 10-12, 2017



Wednesday May 10, 2017 Concurrent Workshop Sessions

8:00 am Registration Opens	Ballroom Foyer
1:00—6:30pm Exhibitor Area Open to attendees	Siesta Key, Longboat Key, Foyer
2:30—3:15pm Break in Exhibit Area	Siesta Key, Longboat Key, Foyer
5:00—6:30pm Reception in Exhibit Area	Siesta Key, Longboat Key, Foyer

Wednesday Morning Sessions 8:30—noon

Session 1—Forging a Robust Field Quality Manual along with Surface Water Sampling Operations and Intricacies ~0.35 CEUs Vance Reiman, JEA and Geoff Rosenaw, Collier County (Bellair Ballroom)

The first part of the workshop stresses the importance of developing a strong Field Quality Manual (FQM) to better meet FDEP field SOPs requirements. Learn how a FQM can aid your organization in meeting data quality expectations of your management/clients. It will include tips on how to begin constructing your FQM or maturing one you already have in place.

The second part will be targeting surface water sampling, including methods of collecting representative samples in accordance with FDEP SOPs. Highlighting internal SOPs and controlled document monitoring and revisions, for better quality results and to be more advantageously suited for audits. It will be composed of practical tips and tricks based on experience from the instructor .

Session 2—The 2016 TNI Standards, Vol. 1, Mod. 4: Quality Systems for Chemical Testing—Are you Prepared? ~0.35 CEUs Valerie Slaven, Teklab Inc. and TNI Chemistry Committee chair and Dr. Colin Wright, FDEP (Redington Ballroom)

The Florida Department of Health has published a Notice of Rule Development in which there is a requirement for environmental testing laboratories seeking certification to comply with Module 4, "Chemical Testing" of the 2016 TNI standard (EL-V1M4-2016). There are significant differences between the Chemistry Modules of the 2016 TNI Standard and that of the 2009 Standard. In particular, both the calibration and the detection and quantitation sections have been substantially revised. This workshop will cover the changes to each section as well as some of the chemistry committee's rationale behind the changes. It will also include practical approaches to the day to day implementation of Module 4 of the 2016 standard.

12:00— 1:00pm LUNCH ON YOUR OWN or sign up for one of the vendor Lunch and Learn Sessions

Wednesday Afternoon Sessions 1:00— 5:00pm

Session 3—NEFAP and the FDEP SOPs ~0.40 CEUs Silky Labie, ELCAT (Bellair Ballroom)

Many sampling organizations are considering accreditation through the NEFAP Standards (FSMO V1-ISO 2008), but are hesitant to do so because of the perception that the Standards have more requirements than the DEP SOPs. This course will review the similarities between the two sets of requirements, and highlight the differences, so that organizations will be better prepared to make a decision on whether or not to seek NEFAP accreditation.

Session 4—BOD/DO ~0.40 CEUs Al Yates, Skalar; Laura St. Pierre, YSI; Angela Cimino, JEA (Redington Ballroom)

Biochemical Oxygen Demand (BOD) can be one of the most challenging tests for today's environmental laboratory. In this workshop a description of the test procedure and the history of the test will be provided; but also, ways to improve efficiency and decrease failures will be discussed. The workshop will be shared from 3 different perspectives: automation, detection and best practices. Attendees will hear from an automation expert, a DO meter and probe expert, and a current BOD lab scientist.

5:00—6:00pm Reception in Exhibit Area with Hors d'oeuvres and Door Prizes

Thursday May 11, 2017 Technical Sessions in the Sand Key Ballroom 0.75 CEUs

8:00 am Registration Opens	Ballroom Foyer
8:00 am –8:30am Continental Breakfast	Siesta Key, Longboat Key, Foyer
8:00—5:00pm Exhibitor Area Open to attendees	Siesta Key, Longboat Key, Foyer
5:00pm Door Prize drawings	Sand Key Ballroom

8:30—8:45am **Opening Remarks—John Moorman, FSEA President**

8:45—9:30 am **UCMR 4 - 2018-2020 – What will be its challenges and costs? - Paul Jackson, Pace Analytical**

UCMR 4 brings significantly more complicated scheduling and field sampling requirements than previous rounds of UCMR. Also, the cost impact to PWSs with Surface Water (SW) and Groundwater Under the Direct Influence (GWUDI) of surface water source waters can potentially be much higher than in the past. During this session you will learn about: UCMR 4 schedules; UCMR 4 required parameters; the field sampling requirements for PWSs with Surface Water (SW) and Groundwater Under the Direct Influence (GWUDI) of surface water source water systems.

9:30—10:15am **Efficiency of an Integrated Online Chain of Custody Service—David Riese, Promium**

An online chain of custody service provides an efficient, accurate, and reliable process to replace a paper-based chain of custody process. Mr. Riese will describe the components and benefits of EnviroChain, an online chain of custody service integrated with the LIMS. Thousands of paper CoC's are handled every year in most labs. That paper-based system is inefficient—data must be entered on paper and then again in the LIMS, inaccurate—every time data is hand-written and then transcribed creates potential for data entry errors, and unreliable—with paper CoC's getting damaged or lost. An online chain of custody service not only addresses those issues, it also delivers a source of data in near real-time for laboratory project planning and sample management. The result is a reduction in costs and headaches. With the explosion in the use of smartphones, tablets, mobile networks, and Wi-Fi, there is finally a field technology that can truly leverage web applications for managing chains of custody.

10:15-11:00am **BREAK in Exhibit Area—Siesta Key, Longboat Key and Ballroom Foyer**

11:00—11:45am **Challenges in the Pursuit of the 'True Value': A Guide to Improving Laboratory Accuracy through Error and Contamination Reduction in the Analytical Laboratory—Patricia Atkins, SPEX CertiPrep**

Every year, analytical laboratories are tasked with finding increasingly smaller amounts of the world's pollutants and contaminants. The regulations continue to decrease the acceptable levels and the analysts struggle to improve their processes to handle lower and lower limits of detection. In a field where parts per billion or parts per trillion matter, it is of increasing importance to understand how to reduce error and increase accuracy. Identification of proper analytical processes and techniques and identifications of sources of error and contamination can greatly increase a laboratory's accuracy and efficiency. In this study, we highlight all the ways in which error and contamination can enter an analytical workflow. Highlighted are a wide range of topics from the correct use and types of standards to common sources of contamination within the lab. We will go into detail on the methods for correcting error and calculating uncertainty in analytical processes.

11:45am—noon **FSEA Business Meeting**

12:00—1:15pm **LUNCH located in the Watercolour Grillhouse (provided)**

1:15—2:00pm **Legiolert, An Enzymatic Method for The Detection of *L. pneumophila* in Water and Cooling Towers—Gil Dichter, IDEXX**

Legionella pneumophila was first documented in 1976 when an outbreak of pneumonia occurred at an American Legion Convention in Philadelphia. *L. pneumophila* was isolated as the cause of this outbreak resulting in 34/221 who became ill died after exposure. *L. pneumophila* is on both USEPA CCL3 and CCL4 (Contamination Candidate List) for drinking water. A new enzymatic method, Legiolert, was developed and compared against the CDC and ISO methods for the detection of *L. pneumophila* in potable waters and non-potable waters. The CDC and ISO methods requires incubation from 7-10 days for a presumptive test with confirmation requiring up to 4 days. Legiolert requires no confirmation and incubation is only 7 days. The presentation will include: Introduction to Legionella; Legionella 101; Review of methods - CDC, ISO and Legiolert; review of trial studies; QC; Q&A.

Thursday May 11, 2017 Technical Sessions in the Sand Key Ballroom 0.75 CEUs

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2:00—2:45pm Lessons from the Laboratory: Our Journey to a New LIMS—Laura Cintron, Hillsborough County and Ken Ochi, ATL

Hillsborough County (FL) Public Utilities Department provides 1.35 million residents with safe, reliable delivery of drinking water, wastewater and reclaimed water. The Environmental Laboratory employs 21 full-time scientists, field samplers and managers that analyze and report 150 certified analytes for potable water, non-potable water and sludge. The lab supports four water plants, eight wastewater treatment plants and one biosolids management facility. The laboratory is NELAC-certified, performs 80,000 tests annually and its top priority is to provide reporting on drinking water, wastewater, groundwater, industrial pretreatment, spills and PBWNs. This reporting must be NELAC-certified and comply with federal and state regulations. Over the past year, the lab has been involved in a project to select and implement a new Laboratory Information Management System (LIMS) to help manage laboratory operations. The objective of this presentation is to educate attendees on things to keep in mind when selecting and implementing a new LIMS. Topics will include: LIMS selection at Hillsborough County – A summary of our evaluation process and things we learned along the way; Implementing a LIMS at Hillsborough County – Lessons learned and benefits realized thus far; Why a LIMS is critical to our future success at Hillsborough County.

2:45-3:15pm BREAK in Exhibit Area—Siesta Key, Longboat Key and Ballroom Foyer

3:15—4:00pm Ammonia Colorimetric Testing by Gas Diffusion on Segmented Flow Analyzers—Sarah 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, what types of samples the method is suitable for, as well as the ammonia colorimetric testing following gas diffusion.

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 Environmental Testing Is a Risky Business—Dr. Carl Kircher, FDOH

Major revisions are being made to the international standard for competence of calibration and testing laboratories, upon which the NELAC Standards are based. The major changes are ensuring confidentiality and impartiality, as well as competency in laboratory testing activities. The primary tool for meeting these requirements will be risk assessment, so it is incumbent upon laboratories in the future (if not already) to include risk assessment in its internal audits, management reviews, and other conformity assessment activities. How does one assess risk, and how does one ascertain what risk(s) or what risk level(s) is acceptable? The presentation will illustrate various facets of risk assessment as could be applicable to environmental testing, thus encouraging ideas for accredited laboratories to use in complying with the NELAC Standards.

5:05pm Door Prize Drawings

Friday May 12, 2017 Regulatory Sessions in the Sand Key Ballroom ~0.45 CEUs

8:00 am Registration Opens

Ballroom Foyer

8:00 am –8:30am Continental Breakfast

Siesta Key, Longboat Key, Foyer

8:30—9:15 am Red Flag Findings and Ways to Address them before your assessment - Michelle Wade, Wade Consulting

Every year or two there is a presentation on the most common findings from assessments. While a useful tool - over the course of time these findings haven't really changed and will continue to be the "go to" findings for assessors. This presentation will address the red flag findings that will send your assessor into overdrive looking (hopefully fruitlessly) for much bigger problems in the laboratory as well as ways for the laboratories to address these red herrings to prevent the laboratories from unnecessarily giving their assessor a heart attack. Examples include but are not limited to: the lab is going paperless, common misprints and examples of what may indicate fraudulent activities. This presentation at the heart addresses commonly overlooked systematic quality systems errors and how the laboratory can avoid them. Wade Consulting will pull from their own experiences as well as those of other assessors.

9:15—10:15 am Updates to Chapter 62-160—Michael Blizzard, FDEP

10:15-10:45 am BREAK in Ballroom Foyer

10:45—11:45am Method Update Rule —Jerry Parr, Catalyst Information Resouces, TNI

Information on the MUR

11:45—1:00pm Regulatory Forum

This session will allow attendees to submit questions in advance for a select panel of representatives from FDOH, FDEP and TNI 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 by May 5, 2017. If time allows questions may be asked from the floor.

Save the Date for our Fall Meeting and Technical Session October 25-27 2017 at the Wyndham Harbourside in Jupiter.