

US EPA ARCHIVE DOCUMENT

**SUMMARY OF THE  
ENVIRONMENTAL LABORATORY ADVISORY BOARD MEETING**

**Teleconference: 866-299-3188/9195415544#**

**February 19, 2014; 1:00 – 3:00 p.m. EST**

The U.S. Environmental Protection Agency's (EPA) Environmental Laboratory Advisory Board (ELAB or Board) teleconference was held on February 19, 2014. The agenda for this meeting is provided as Attachment A, a list of the participants is provided as Attachment B, and action items from the teleconference are included as Attachment C. The official certification of the minutes by the Chair or Vice-Chair is included as Attachment D.

**AGENDA ITEMS:**

**1. OPENING REMARKS**

Ms. Patsy Root, Chair of ELAB, and Ms. Lara Phelps, Designated Federal Official (DFO) of ELAB, welcomed participants to the teleconference and called an official roll of the Board members and guests.

**2. APPROVAL OF JANUARY MINUTES**

Ms. Root asked whether any members had any comments regarding the January minutes; there were none. Ms. Patricia Carvajal moved to accept the minutes, and Mr. Dave Speis seconded the motion. The Board approved the January minutes unanimously with four abstentions and no discussion.

**3. OFFICE OF WATER (OW) UPCOMING METHODS PROJECTS**

Mr. Adrian Hanley (EPA) explained that OW's Office of Science and Technology (OST) is responsible for wastewater, effluents and, to some extent, sewer sludge. OST is the main EPA office that addresses Clean Water Act (CWA) methods, whereas OW's Office of Ground Water and Drinking Water (OGWDW) is responsible for drinking water methods. OST staff includes analytical chemists, microbiologists and scientists in other biological disciplines, and the office deals with 40 CFR 136, which includes EPA's regulated methods that are deemed appropriate for analyzing industrial wastewater and a wide variety of matrices. The office is considering water criteria, including those contaminants with deficient or no CWA methods. There is the potential for collaboration, particularly with organizations that may have methods near completion, and OST is interested in obtaining stakeholder feedback about current and potential future method development activities. Stakeholders include EPA offices, regions and laboratories; state regulators; environmental laboratory associations; wastewater utilities; and industry organizations. The goal is to gather a wide variety of comments to prioritize CWA method development activities.

The office is undergoing a new Method Update Rule (MUR) proposal, which was announced in 2013. Methods 608, 624 and 625 are being updated, and guidelines documents for alternate testing procedures (ATPs) and new methods approval for regulating contaminants are being

developed. OST also is undertaking qPCR method studies for various microbiological targets and examining several future CWA method activities, including regulatory analysis of polychlorinated biphenyls (PCBs), modification to the method detection limit, development of a total nitrogen method, update of Method 1694, and exploration of nanomaterials.

Mr. Hanley asked the ELAB members about contaminants of significant concern for which EPA has not regulated or provided methods. Dr. Richard Burrows said that when using Method 608 to test for organochlorine pesticides, it is not uncommon for samples to possess heavy levels of interferences that are difficult to clean; therefore, laboratories frequently do not have a high degree of confidence in the determination. There are potential alternatives (e.g., gas chromatography GC triple quad mass spectroscopy ionization) that could be useful to have as an alternative in situations in which Method 608 does not provide the most reliable data. Dr. Mahesh Pujari described a modification to Method 608 that helps when analyzing for PCBs. Mr. John Phillips would like to see good methods for pharmaceuticals that commonly contaminate wastewater and effluents. Nanomaterials are being used prevalently in many industries; because there are no good techniques for measuring or monitoring them, however, this represents another area of significance. Dr. Michael Wichman added that high-volume diphenyl ethers are another area that would be beneficial to explore.

Dr. Dallas Wait asked how OST tries to harmonize its efforts to be consistent with other offices. Mr. Hanley responded that his office meets with the Office of Resource Conservation and Recovery and OGWDW every few months. The offices have different areas of concern and responsibilities (i.e., OST focuses on a wider variety of methods, whereas OGWDW focuses on higher accuracy and precision), but they attempt to harmonize when possible. Dr. Wait asked whether the required number of points on the calibration curve could be harmonized among offices regardless of matrices. Mr. Hanley agreed that this would make sense so that the same method could be used for ground water and wastewater. Dr. Wait thought that a number of areas (e.g., peak integration) could be harmonized to save time and effort for commercial laboratories, and this is what ELAB would like to promote. Mr. Hanley agreed.

Dr. Wait noted that Mr. Hanley had mentioned the update of Method 1694, which is a liquid chromatography with tandem mass spectroscopy (LC-MS/MS) method. There are additional LC-MS/MS methods within the Agency (e.g., Methods 685 and 537), and he has found significant differences among them in regard to the construct for transition ions and determination of conformation. He thought that, regardless of matrices, fundamental issues (e.g., calibration points, transformation ions) should be standard, and he hoped that this would be considered when Method 1694 is updated. Mr. Hanley agreed, and his opinion regarding the path forward was for offices to agree to try to reproduce the number of calibration points and transformation ions, which should not be affected too much by the matrices. There is some method flexibility for wastewater methods, but it would be too labor intensive to revise all of the current methods.

Dr. Pujari noted that there is little difference between Methods 624 and 8260, but laboratories are struggling to run them both. If these are streamlined, laboratories can run one method for analyses. Mr. Hanley said that some of this could be covered in wastewater's method flexibility.

Ms. Root explained that an ELAB Task Group has been speaking with another EPA office about Recreational Water Quality Criteria and use of qPCR. Will this method now also be used for wastewater effluent? Mr. Hanley responded that nine different water matrices currently are being

tested, and if qPCR performs well enough it eventually could be included in 40 CFR 136. Ms. Root asked how this particular method would be addressed in a CWA ATP process because there are no comparable methods. Mr. Hanley was not familiar enough with the Recreational Water Quality Criteria effort to provide a precise answer.

In response to a question from Dr. Wait, Mr. Hanley explained that OW has not developed an EPA method for phenol-carboxylates.

Mr. David Blye (Environmental Standards) asked whether OST was examining alternatives for Method 1668. Mr. Hanley said that Method 1668 is a reliable, sensitive method. Method 608 is not sensitive enough for PCBs, which are regulated at zero discharge. Dr. Burrows mentioned the potential use of a gas chromatography-mass spectroscopy approach somewhere between Methods 608 and 1668. Mr. Hanley said that this was a good description and noted the ubiquitous background levels of PCBs. Mr. Phillips referenced high-resolution capillary chromatography and noted that good cleanups go a long way to achieve a better, more sensitive technique and better separation from interference. Mr. Hanley agreed that there are other available options.

Dr. Pujari asked about separate testing of acrylonitrile and acrolein in Method 624. Mr. Hanley was unfamiliar with the issue but offered to ask a colleague about it. Dr. Burrows said that acrylonitrile is relatively stable, but degradation was seen with acrolein no matter what. Dr. Wait said that Method 603 covers acrylonitrile, requiring a heated purge and trap. He asked whether Method 624 allowed mass spectroscopy methods for acrylonitrile. His understanding was that Method 603 can use Method 624 as long as the Method 603 purging methods are used. Dr. Pujari said that there is a requirement to use the quality criteria (QC) requirements for Methods 603 and 624.

Dr. Pujari said that in terms of Method 200.8, the MUR allows the use of collision cells. Method 200.8 needs to be modified so that there is not a conflict regarding the mass of collision cells versus noncollision cells.

Mr. Akin Babatola (City of Santa Cruz) asked when additional methods for bacterial analysis could be expected. Mr. Hanley said that for the next year or so, the office is focusing on qPCR, so if additional methods are desired, Mr. Babatola should suggest them. Mr. Babatola recommended methods for *Bacteroides*.

In response to a question from Mr. Phillips, Mr. Hanley agreed to share the presentation slides with the ELAB members. In response to a question from Dr. Burrows about whether the slides could be shared with the Board's constituencies, Mr. Hanley explained that the information contained on the slides includes areas of interest for his office, but they are not definite action items; this must be understood. Mr. Hanley thanked the ELAB members for the productive feedback.

#### 4. TASK GROUPS

As a result of the changes to federal workgroup structure, the standing ELAB Workgroups were dissolved, and *ad hoc* task (topic) groups were formed based on Board topics and activities.

Ms. Root reported that the letter to ORCR regarding the SW-846 updates was sent on January 28, 2014, and the following day ORCR responded that it would take the comments into consideration. The letter to the Agency regarding method detection limits was sent on February 2, 2014, and there has been no response from Mr. Lem Walker (OW) as of yet. Ms. Root will follow up with Mr. Walker to ensure that he has received it and determine whether he has any questions.

Ms. Root noted that there was a good discussion regarding method harmony during Mr. Hanley's presentation. Dr. Wait agreed, noting that speaking to EPA staff members is beneficial to ELAB. Ms. Root was glad that Dr. Wait had focused the issue during the discussion. Dr. Wait agreed that there is a better chance for success when specific rather than general issues are presented. The next step in this effort is for Dr. Wait to draft a letter to EPA personnel about the issue, and once he sends the letter to his Task Group, he will schedule a teleconference for the group to discuss the letter. Ms. Phelps will complete her outstanding action item to determine the most appropriate staff members to whom to send the letter once the recent personnel movement within EPA has slowed down.

In terms of the content of the letter, the goal was to outline potential approaches for QC harmonization and increased communication while providing specific examples. Two letters will be developed: one to the members of OW and ORCR who met with the Task Group and a more general one including additional EPA offices. Ms. Aurora Shields moved that the Board discuss the letter via email once the Task Group has developed it. Dr. Wichman seconded the motion. Ms. Phelps suggested adding a clause to the motion indicating that if there is a desire, the letter can be discussed during the March ELAB teleconference. Mr. Speis asked about the urgency in approving the letter prior to the next Board meeting. Because the Task Group met with Agency personnel in January, the desire was to respond promptly, but after further discussion, it was determined that there was no urgency to craft anything beyond a straightforward thank you letter to OW and ORCR. Ms. Shields withdrew the motion, and Dr. Wichman withdrew his second. Dr. Wait will send a straightforward courtesy email (one to two sentences) thanking the ORCR and OW staff members for attending the meeting without needing prior ELAB approval. Ms. Phelps volunteered to review the email before Dr. Wait sends it, but it is not necessary.

Ms. Root reported that the letter regarding ELAB's desire to be engaged during the next MUR process was sent to the Forum on Environmental Measurements in December 2013. Ms. Phelps said that the letter was well received, and a letter from Dr. Mike Shapiro (EPA) is being drafted, including a small point of clarification. ELAB's letter is being distributed widely among the Agency so that all groups are aware of it, and it will be published on the Board's website. ELAB should receive the response prior to its March meeting.

Ms. Wade explained that she had drafted a second letter regarding the MUR that included an attachment with the pertinent MUR topics that the Board would like to address. Ms. Root had sent the letter to the Board members the prior day for their review. Mr. Farrell made a motion to discuss and vote on the letter via email, which Ms. Wade seconded. The motion passed unanimously. Ms. Phelps noted that, per the Board's established email voting process, an expedited schedule would need to be in place to ensure that the letter is sent by the deadline of March 3, 2014. Mr. Farrell amended his motion so that all comments must be sent to Ms. Root no later than Monday, February 24, 2014. Ms. Wade seconded the amended motion, which passed unanimously.

## 5. NEW TOPICS/ISSUES FOR CONSIDERATION

In terms of field sampling, Mr. Jack Farrell commented that Dr. Jim Seiber's point was that field sampling is becoming an increasingly more important part of obtaining analytical data. ELAB should decide whether it would like to address this topic. Ms. Root agreed that it always has been an important part of the process, and now is getting the attention that it deserves.

Mr. Phillips mentioned The NELAC Institute's (TNI) National Environmental Field Activities Program (NEFAP) and suggested that a recommendation could be for the Agency to require NEFAP certification for field sampling when possible. Ms. Phelps recommended being very careful about recommending that the Agency use a single source. She can educate ELAB about EPA actions regarding field sampling and measurements. An effort began more than a year prior, and there are more consistent criteria that will be instituted for field sampling. Following much negotiation and establishment of a committee, field operations guidelines have been developed and heavily vetted within the Agency; every program within the Agency must be in compliance with the new guidelines by January 2016. Mr. Phillips thanked Ms. Phelps for the information, explaining that he had suggested NEFAP because he had not been aware of any other efforts.

Mr. Speis thought that it would be helpful for ELAB to be educated about Agency efforts in this area. Ms. Phelps said that she could share information regarding the field sampling efforts to ELAB prior to the next meeting so that the Board to facilitate discussion during the March meeting. Mr. Speis and Mr. Farrell thought that this would be beneficial. Mr. Farrell thought that in addition to require a quality system and competency, competency for sampling should be defined. Ms. Phelps suggested that Mr. Farrell include information from TNI as well; Ms. Marlene Moore (Advanced Systems, Inc.) is another potential resource. Mr. Farrell volunteered to contact her.

Ms. Root asked whether there was any way of knowing whether the new guideline would be included in the MUR. Ms. Phelps did not think it would be integrated into the MUR, but she could discuss this with Mr. Walker. Per the guidelines, those generating data for EPA under grants and cooperative agreements must demonstrate competency. Ms. Root explained that she wondered whether the use of quality system-based field sampling would be included generally in the MUR. Ms. Phelps said that the requirements were being integrated into specific grants and cooperative agreements, but it probably would not be generally integrated into a rule. Mr. Farrell said that requiring states to implement this under regulations would be a challenge. Ms. Phelps said that anyone receiving an EPA-grant above a specific amount threshold understand that they must demonstrate competency per the new guidelines.

Ms. Shields said that with the new guidelines, the facilities that collect the samples will be required to demonstrate proficiency rather than the states themselves, which would be required if it was formalized in a regulation. Ms. Ruth Forman cited an example that she was aware of in Tennessee in which a state regulator required the laboratory performing field sampling to demonstrate competency, and Region 4 had provided this guidance to the state as well. She thought that this requirement was being promoted beyond EPA funding programs. Ms. Phelps said that this was true, and she has spoken with Region 4 about the competency policy. Each region is implementing the new policy in its own way, but the goal is to generate some consistency. The regions understand that if the new policy is not followed, they could lose

Agency funding. Ms. Root noted that in Europe, ISO standards are followed, and a method cannot be conducted in isolation.

## **6. WRAP-UP/REVIEW ACTION ITEMS**

There was not sufficient time to review the action items during the teleconference.

## **7. CLOSING REMARKS/ADJOURNMENT**

The meeting was adjourned at 3:06 p.m.

**Attachment A**

**AGENDA  
ENVIRONMENTAL LABORATORY ADVISORY BOARD**

Monthly Teleconference: 866-299-3188/9195415544#

February 19, 2014; 1:00 – 3:00 p.m. (EST)

Opening Remarks	Phelps/Root
Approval of January Minutes	Root
Office of Water (OW) Upcoming Methods Projects	Hanley (OW)
Task Groups	All
Letter to ORCR on SW-846 Updates	
Letter to Agency Regarding Method Detection Limits	
Interagency Data Quality Task Force/Data Quality Objectives Process	
Methods Harmony	
Method Update Rule	
Field Sampling	
New Topics/Issues for Consideration	Root
Total Nitrogen	
Update Radiologicals Tables	
Method 1668 (PCBs)	
Biosolid Methods	
Whole Effluent Toxicity	
MDL Procedure	
Wrap-Up/Review Action Items	Root/LeBaron
Closing Remarks/Adjourn	Phelps/Root



**Attachment B****MEMBERSHIP LISTING AND GUESTS****ELAB TELECONFERENCE  
February 19, 2014; 1:00 p.m. – 3:00 p.m. EST**

<b>Attendance (Y/N)</b>	<b>Name</b>	<b>Affiliation</b>
Y	Ms. Patsy Root (Chair)	IDEXX Laboratories, Inc. Representing: Laboratory Product Developers
Y	Ms. Michelle L. Wade (Vice-Chair)	Kansas Department of Health and the Environment Representing: Laboratory Accreditation Bodies
Y	Ms. Lara P. Phelps, DFO	U.S. Environmental Protection Agency Representing: EPA
Y	Dr. Richard Burrows	TestAmerica Laboratories, Inc. Representing: Commercial Laboratory Industry
Y	Ms. Patricia M. Carvajal	San Antonio River Authority Representing: Watershed/Restoration
Y	Mr. John (Jack) E. Farrell, III	Analytical Excellence, Inc. Representing: The NELAC Institute (TNI)
Y	Ms. Ruth L. Forman	Environmental Standards, Inc. Representing: Large Third-Party Assessors
N	Ms. Sylvia (Silky) S. Labie	Environmental Laboratory Consulting & Technology, LLC Representing: Third Party Assessors
Y	Ms. Susan L. Mazur	Florida Power and Light Representing: Utility Water Act Group
Y	Mr. John H. Phillips	Ford Motor Company Representing: Alliance of Automobile Manufacturers
Y	Dr. Mahesh P. Pujari	City of Los Angeles Representing: National Association of Clean Water Agencies (NACWA)
N	Dr. James N. Seiber	University of California, Davis Representing: Academic and Research Communities
Y	Ms. Aurora Shields	City of Lawrence, Kansas Representing: Wastewater Laboratories
Y	Mr. David (Dave) N. Speis	QC Laboratories Representing: American Council of Independent Laboratories (ACIL)
Y	Dr. A. Dallas Wait	Gradient Representing: Consumer Products Industry
Y	Dr. Michael D. Wichman	State Hygienic Laboratory at the University of Iowa Representing: Association of Public Health Laboratories (APHL)

<b>Attendance (Y/N)</b>	<b>Name</b>	<b>Affiliation</b>
Y	Ms. Kristen LeBaron (Contractor)	The Scientific Consulting Group, Inc. (SCG)
Y	Mr. Akin Babatola (Guest)	City of Santa Cruz (California)
Y	Mr. David Blye (Guest)	Environmental Standards
Y	Ms. Lynn Bradley (Guest)	TNI
Y	Dr. Mike Delaney (Guest)	Massachusetts Water Resources Authority
Y	Mr. Adrian Hanley (Guest)	EPA
Y	Ms. Ann Lawson (Guest)	Arlington (Texas) Water Utilities
Y	Ms. Karen Menard (Guest)	Upper Trinity Regional Water District (Texas)
Y	Ms. Renee Spears (Guest)	California State Water Resources Control Board
Y	Ms. Linda Wilson (Guest)	New York State

## Attachment C

### ACTION ITEMS

1. Ms. Kristen LeBaron will finalize the January 2014 meeting minutes and send them to Ms. Phelps via email.
2. Ms. Root will follow up with Mr. Walker regarding the MDL letter.
3. Dr. Wait will send a brief, straightforward thank you email to the ORCR and OW staff members who met with the Methods Harmonization Task Group.
4. Board members will provide their comments regarding the second MUR letter to Ms. Root no later than Monday, February 24, 2014; ELAB members then will vote on whether to approve the letter no later than March 3, 2014.
5. Mr. Farrell will contact The NELAC Institute (TNI) personnel, including Ms. Marlene Moore (Advanced Systems, Inc.), regarding TNI's field activities.
6. Ms. Phelps will discuss with Mr. Walker whether the new field sampling guidelines/policies may be incorporated into the MUR.
7. Ms. Phelps will provide the Board members with information about EPA's new policies regarding demonstration of competency for field sampling.

**Attachment D**

I hereby certify that this is the final version of the minutes for the Environmental Laboratory Advisory Board Meeting held on February 19, 2014.

*Michelle L. Wade*

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Signature Chair

Ms. Michelle Wade

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Print Name Chair