

US EPA ARCHIVE DOCUMENT

**SUMMARY OF THE
ENVIRONMENTAL LABORATORY ADVISORY BOARD MEETING
Monthly Teleconference Meeting: 866-299-3188/9195415544#
September 20, 2017; 1:00 – 3:00 p.m. EDT**

The U.S. Environmental Protection Agency's (EPA) Environmental Laboratory Advisory Board (ELAB or Board) teleconference was held on September 20, 2017. 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.

ROLL CALL/INTRODUCTION

Dr. Henry Leibovitz, Chair of ELAB, and Ms. Lara Phelps, Designated Federal Official (DFO) of ELAB, welcomed participants and guests to the teleconference. Ms. Kristen LeBaron called the roll of the Board members and guests.

APPROVAL OF PRIOR MINUTES

Dr. Leibovitz asked for any comments about the August face-to-face meeting minutes. Dr. Brian Buckley thought that he had recognized the need for analytical expertise in performing the methodology when discussing gas chromatography/mass spectrometry (GC/MS) spectral libraries. Dr. Buckley moved to accept the August 2017 minutes with his suggested addition; Ms. Sharon Mertens seconded the motion. The Board members voted unanimously to approve the motion with one abstention.

OPENING REMARKS AND UPDATES FROM THE DFO

Ms. Phelps explained that she had provided a revised distribution list to the ELAB members the previous week. Ms. Ann Bailey and Dr. Keri Hornbuckle have resigned from the Board, Ms. Luann Kleibacker has retired from EPA, and Ms. Marie Russell has finished her fellowship with the Agency.

Ms. Phelps has just entered and certified ELAB's fiscal year 2017 activities into the General Services Administration database for Federal Advisory Committee Act committees. ELAB's was received first this year. She also is in the process of overseeing changes to the website to improve navigation and include the entire history of the Board's minutes and products in a searchable archive.

TASK GROUP UPDATES ON CURRENT TOPICS

The Task Group leaders or their representatives provided updates about current Board topics.

In-Line and On-Line Monitoring

No update was available in the absence of Mr. Michael Flournoy.

Whole Effluent Toxicity (WET) Testing

Dr. Leibovitz explained that the Task Group had engaged in a productive meeting with members of EPA and The NELAC Institute (TNI) WET Expert Committee at the National Environmental Monitoring Conference (NEMC). Consensus was obtained by the end of the meeting, at which Ms. Lynn Bradley (TNI) took notes. Dr. Leibovitz will forward these minutes to the ELAB members.

Dr. Mike Delaney asked about the agreement between TNI and EPA regarding proficiency testing (PT). Dr. Leibovitz responded that TNI manages a committee that accredits and approves PT providers. He believes that EPA recognizes TNI-approved PT providers. Ms. Mertens and Ms. Deb Waller explained that although a formal recognition agreement between EPA and TNI does not currently exist, the PT program run by TNI has strict requirements for both PTs and the providers supplying them. Ms. Phelps clarified that when EPA decided to no longer manage the PT program, the Agency entered a memorandum of understanding with the National Institute of Standards and Technology (NIST) that ultimately allowed other organizations to take over the program. Currently, although the memorandum no longer is in place officially, the Office of Drinking Water and Ground Water recognizes and acknowledges TNI's program, and the Agency reserves the right to review provider information at any time.

In response to a question from Dr. Delaney, Ms. Phelps confirmed that the Discharge Monitoring Report–Quality Assurance Study Program still is managed by EPA. Dr. Mahesh Pujari noted that, in some states, reporting is to the state water board.

Cyanide Methodology

Dr. Delaney explained that Dr. Leibovitz had provided an annotated version of the Task Group's response letter to the ELAB members. EPA's response to the Board's recommendations indicated that the Agency would address them during the next Six-Year Review of Drinking Water Standards. Dr. Delaney thought that EPA could address them sooner via guidance documents. The next step is for the Task Group to meet to develop a response.

Dr. Leibovitz polled the members to determine whether ELAB should respond. An ELAB member thought that it would be appropriate to respond because Mr. Dan Hautman (EPA) had been present at the face-to-face meeting when this issue was discussed, and he seemed amenable to drafting guidance. Dr. Delaney did not have a preference about whether a response should be drafted.

The Board members deliberated about the option of discussing a potential draft guidance with Mr. Hautman. Ms. Phelps explained that he could be invited to a Task Group meeting to discuss the issue, or ELAB could formally address him in writing. Dr. Leibovitz thought that it was unsettling that EPA acknowledged that problems exist, but the Agency would need to wait several years, until the next review, to address the problems. ELAB could discuss potential options and provide them to the Agency. The Board also could ask EPA staff to identify obstacles and determine how these could be addressed. Ms. Phelps explained that the Board could express in writing how unsettled the members are and request a more formal engagement

to find potential solutions. An ELAB precedent already has been set for developing collaborative workgroups with the Agency.

Currently, the Task Group includes Dr. Delaney, Dr. Leibovitz, Ms. Patty Carvajal, Mr. Brad Meadows and Ms. Waller.

Drinking Water Certification Officer's Course

Ms. Mertens reported that the Task Group had met the prior week and discussed ideas to address concerns related to the course. The group has developed a draft letter and will meet to discuss it during the first 2 weeks of October. The goal is to provide a draft for ELAB to discuss by its November meeting.

Acrolein and Acrylonitrile Preservation and pH

As discussed at the Board's August meeting, ELAB had previously advised EPA regarding the analysis requirements and pH preservation for acrolein and acrylonitrile. Although drafts of SW-846 and 40 CFR 136 appeared to correct the issue, the final documents did not include the recommended changes. Ms. Phelps provided the Board's previous letter to the ELAB members shortly after the meeting; Dr. Pujari summarized the contents of the letter.

An ELAB member wondered whether the Agency could issue a letter that addresses this issue prior to the next scheduled *Federal Register* notice, which will not occur for a significant amount of time given the update cycle. Dr. Leibovitz suggested that the Board could ask the Agency for clarification about why the suggested changes were deleted from the final version. An ELAB member wondered why a study to change a wastewater method was performed only on ground and deionized water; perhaps the matrices were the reason the changes were not incorporated.

Ms. Carvajal noted that ELAB had provided its comments for the Methods Update Rule (MUR), so EPA was required to issue a response to these comments when the MUR was released. Dr. Delaney noted that EPA's response to the MUR comments was more than 900 pages long, and based on his recollection, the response to this particular issue was that a compelling study had not been completed. He had previously sent to the Board members a study that his organization had completed, but it examined only one effluent sample.

Dr. Delaney volunteered to review EPA's response and provide an overview to the Board members regarding how it relates to acrolein and acrylonitrile preservation.

Dr. Leibovitz suggested that the Board could request that a study be completed using wastewater similar to the ground water study to determine that there would be no effect. Drs. Pujari and Delaney will begin to formulate a plan for how the Agency could develop such a study. Dr. Pujari also will discuss this issue with Mr. Adrian Hanley (EPA).

Ms. Waller wondered about EPA's source for requiring the current preservation pH of 4–5. Ms. Mertens explained that this requirement had been implemented in the 1990s. Dr. Leibovitz added that this could be included in ELAB's advice.

Once Drs. Delaney and Pujari provide more information about this topic, the Board can decide whether to form a Task Group.

Open Topics With No Current Updates

Dr. Leibovitz reported that no additional updates regarding a meeting with the Interagency Data Quality Task Force were available since the face-to-face meeting. Also, the Board members agreed at the face-to-face meeting that the topic of methods harmonization will be closed.

Ms. Phelps explained that she had discussed the Board's selected ion monitoring (SIM) letter with Dr. Mike Shapiro (EPA). A short letter from Dr. Shapiro is being developed that acknowledges the receipt of ELAB's letter and explains that the issue will be considered more globally by the Forum on Environmental Measurements.

NEW TOPICS/ISSUES FOR CONSIDERATION

GC/MS Spectral Libraries

Dr. Leibovitz noted that ELAB had received clarification about this issue during the August face-to-face meeting and asked the Board members whether they wanted to address the topic.

From Dr. Buckley's perspective, two groups seem to exist: those who like NIST's library and those who do not. He can see advantages to both; the question is whether ELAB would like to explore whether criteria or guidelines can be created with enough certainty to allow analysts their choice of using the NIST library or their own user-generated libraries.

Dr. Leibovitz asked how assessors could confirm that user-generated libraries and identifications are correct. This presents a challenge for the thousands of analytes that exist. The NIST library, however, has been thoroughly vetted.

Mr. Meadows thought that the concern about user-generated libraries is that laboratories create their own libraries using "megamixes" that have potential overlap among multiple compounds. An unknown spectrum may be cleaner in actual use. The Board's recommendations on this topic might be similar to the SIM recommendations that it developed (i.e., guidelines for acquisition of user-generated libraries). Dr. Leibovitz asked what Mr. Meadows thought some of these guidelines might be. For example, a guideline could detail how well the compounds must be separated before their spectra could be used. Mr. Meadows thought that this was a good start, and Dr. Buckley added that this would be a minimum criterion. Any questionable spectra would need to be evaluated by a single standard to confirm that no overlap exists among compounds. Ultimately, accurate libraries will save the analyst time and effort moving forward. A minimum of 3 seconds and 10 percent separation between compounds could be the criteria for baseline resolution. Acceptance criteria (e.g., consistent parent-product ratios) also can be imposed in the MS protocol itself.

Ms. Waller explained that a method specifying that the library must be generated by the laboratory and disallowing the use of the NIST library would be problematic because assessors enforce the method requirements. Dr. Buckley explained that he was suggesting an "either/or" situation rather than an exclusive one.

Dr. Leibovitz commented that many more unregulated than regulated analytes exist. New methods are being written for unregulated analytes, but some established methods also are being used for these analytes. He asked whether the analysis of unregulated analytes had to strictly follow the methods for regulated analytes (i.e., unregulated analytes could use or not use the NIST library even when specified for regulated analytes). Ms. Waller responded that assessors will accept what the data users specify for unregulated analytes; if data users find this acceptable, the assessors also will. Dr. Leibovitz thought that user-generated libraries would be useful for emerging contaminants. Eventually methods may evolve for which no NIST libraries exist. Perhaps the issue is to define situations in which NIST libraries are recommended and those in which use of NIST libraries is less important. Dr. Leibovitz thought that these situations generally are understood, but it could be helpful to provide guidance. Dr. Buckley agreed.

Dr. Pujari provided his observations about methods requiring quadrupole versus ion trap MS. Dr. Leibovitz commented that quadrupole methods that specify the use of NIST libraries are written for regulated analytes and routine analysis, and he reiterated that the lists of unregulated analytes and emerging contaminants are expanding much more quickly than the list of regulated analytes. As laboratories continue to use the same instruments for unregulated analytes and emerging contaminants that they have used routinely for regulatory purposes, it makes more sense to use user-generated libraries. Therefore, defining how to create acceptable user-generated libraries that an assessor can evaluate is key. Ms. Waller noted that state or NELAP certification cannot be offered for analytes that do not have methods unless it is user-defined. The ultimate question is “Who is the data user?” Dr. Leibovitz agreed that this is why guidance about user-defined libraries is important; all groups must be “on the same page.” Ms. Carvajal commented that this could be the crux of any recommendation that ELAB makes to the Agency. Dr. Leibovitz thought that this is the potential question around which a Task Group could be formed. The Board agreed to decide during the October meeting whether it would create a Task Group around this question/topic.

Microwave Extraction of Polychlorinated Biphenyls (PCBs) From Soils

In response to a request from Mr. Meadows asking for clarification of how the issue had been introduced, Ms. LeBaron read the following sentence from the August meeting minutes: “Mr. Dan Wright (Shealy Environmental Services) asked whether an effort exists to include the microwave extraction method for polychlorinated biphenyls (PCBs) into Toxic Substances Control Act methods.”

The Board members determined that microwave extraction of PCBs is included in Method 8082A, although it was not included in the previous version (Method 8082). Ms. LeBaron will send Mr. Wright’s contact information to Dr. Leibovitz so that Dr. Leibovitz can explain this to him.

Dr. Pujari hopes to provide an update about EPA’s work on PCB congeners soon.

Additional Topics/Issues for Consideration

Ms. Waller thought that EPA could find a way to handle drinking water issues more quickly than by waiting for the *Federal Register* process; perhaps the program could take the same approach

as the wastewater program. Dr. Leibovitz recalled that staff from the Office of Drinking Water and Ground Water had discussed at NEMC that they are restricted by the Safe Drinking Water Act and other regulatory restraints; it may be possible, however, to find a method to reduce paperwork and time. Perhaps ELAB could suggest that Safe Drinking Water Act changes be adopted in the same manner as Clean Water Act changes are adopted. The Board should not assume that each program knows what methods and actions other programs have in place. By the November Board meeting, Ms. Waller will draft a framework that will help ELAB explore how to streamline the current process.

WRAP-UP/SUMMARY OF ACTION ITEMS

Ms. LeBaron reviewed the action items identified during the meeting, which are included as Attachment C.

CLOSING REMARKS/ADJOURNMENT

Ms. Waller moved to adjourn the meeting; Dr. Pujari seconded the motion. The meeting was adjourned at 2:32 p.m.

Attachment A

AGENDA
ENVIRONMENTAL LABORATORY ADVISORY BOARD
Monthly Teleconference Meeting: 866-299-3188/9195415544#
September 20, 2017; 1:00 – 3:00 p.m. EDT

Call to Order/Roll Call/Introduction of Guests Leibovitz/LeBaron

Approval of Prior Minutes Leibovitz

Opening Remarks and Updates From the DFO Phelps

Updates on Current Topics

In-Line and On-Line Monitoring: Flournoy
Whole Effluent Toxicity Testing: Leibovitz
Cyanide Methodology: Delaney
Drinking Water Certification Officer's Course: Mertens
Acrolein and Acrylonitrile Preservation and pH: Pujari

Open topics with no current updates:

Interagency Data Quality Task Force/Data Quality Objective Process: Leibovitz
Methods Harmonization: Leibovitz
Improving Polychlorinated Biphenyls (PCB) Methodology: Pujari
Selected Ion Monitoring: Delaney

New Topics/Issues for Consideration Leibovitz

Gas Chromatography/Mass Spectrometry (GC/MS) Spectral Libraries
Continue discussion on request to ELAB to address existing inconsistencies
across EPA methods (624, 625, 8270) regarding the requirements for GC/MS
spectral library sources.

Microwave Extraction of PCB From Soils
Topic for Task Group on PCB methodology improvements?

Wrap-Up/Summary of Action Items Leibovitz/LeBaron

Closing Remarks/Adjournment Phelps/Leibovitz

Attachment B

PARTICIPANTS LIST
Board Members

| Attendance (Y/N) | Name | Affiliation |
|-----------------------------|--|--|
| Y | Dr. Henry Leibovitz (Chair) | Rhode Island State Health Laboratories Representing: Association of Public Health Laboratories |
| Y | Dr. Michael (Mike) Delaney (Vice-Chair) | Massachusetts Water Resources Authority (MWRA) Representing: MWRA |
| Y | Ms. Lara Phelps (DFO) | U.S. Environmental Protection Agency Representing: EPA |
| Y | Dr. Kim Anderson | Oregon State University Representing: Academia—Oregon State University |
| Y | Dr. Brian Buckley | Rutgers Environmental and Occupational Health Sciences Institute Representing: Academia and Laboratory—Rutgers |
| Y | Ms. Patricia (Patty) Carvajal | San Antonio River Authority Representing: Watershed/Restoration |
| N | Mr. Michael Flournoy | Eurofins Environment Testing USA Representing: American Council of Independent Laboratories |
| N | Dr. Deyuan (Kitty) Kong | Chevron Energy Technology Company Representing: Chevron |
| N | Mr. Jeff Loewe | NiSource, Inc. Representing: Industry—NiSource, Inc. |
| Y | Mr. Brad Meadows | Babcock Laboratories, Inc. Representing: Commercial Laboratory—Babcock Laboratories, Inc. |
| Y | Ms. Sharon Mertens | Milwaukee Metropolitan Sewerage District Representing: The NELAC Institute |
| Y | Dr. Mahesh Pujari | City of Los Angeles Representing: National Association of Clean Water Agencies |
| Y | Mr. Elan Rieser | Con Edison Representing: Utility Water Act Group |
| N | Dr. A. Dallas Wait | Gradient Representing: Consumer Products Industry |
| Y | Ms. Debra (Deb) Waller | New Jersey Department of Environmental Protection (NJDEP) Representing: State Government—NJDEP |

PARTICIPANTS LIST (CONT.)
Contractors and Guests

| Attendance (Y/N) | Name | Affiliation |
|-----------------------------|-------------------------------------|---|
| Y | Ms. Kristen LeBaron (Contractor) | The Scientific Consulting Group, Inc. (SCG) |

Attachment C

ACTION ITEMS

1. Ms. LeBaron will finalize the August face-to-face meeting minutes and send them via email to Ms. Phelps.
2. Dr. Leibovitz will forward to the ELAB members the minutes of the WET testing meeting with TNI and EPA personnel that took place at NEMC.
3. The Cyanide Methodology Task Group will meet to discuss how to collaborate with EPA to find potential solutions to address issues with the current cyanide methodology.
4. Dr. Delaney will review EPA's response to the MUR comments and provide an overview to the Board members regarding how the response relates to acrolein and acrylonitrile preservation.
5. Drs. Pujari and Delaney will begin to formulate a plan for how the Agency could gather existing data and develop a study to address the acrolein and acrylonitrile preservation issue.
6. Dr. Pujari will discuss the acrolein and acrylonitrile preservation issue with Mr. Hanley.
7. Ms. LeBaron will send Mr. Wright's contact information to Dr. Leibovitz so that he can explain the inclusion of microwave extraction of PCBs in Method 8082A.
8. The Board will continue to discuss the GC/MS spectral libraries issue and determine during the October meeting whether it will form a Task Group.
9. Dr. Pujari will follow up with EPA about the PCB congeners method.
10. By the November Board meeting, Ms. Waller will draft a framework that will help ELAB explore how changes to the Safe Drinking Water Act can be adopted in a way similar to how changes to the Clean Water Act are adopted.

Attachment D

I hereby certify that this is the final version of the minutes for the Environmental Laboratory Advisory Board Meeting held on September 20, 2017.



Signature, Chair

Dr. Henry Leibovitz

Print Name, Chair