ENVIRONMENTAL LABORATORY ADVISORY BOARD (ELAB)
Face-to-Face Meeting/Teleconference: 866-299-3188/9195415544#
Grand Hyatt Washington, Washington, D.C.
August 7, 2017; 1:00 – 5:00 p.m. EDT

MEETING SUMMARY

The U.S. Environmental Protection Agency's (EPA) Environmental Laboratory Advisory Board (ELAB or Board) face-to-face meeting was held on August 7, 2017, as a session at the 2017 National Environmental Monitoring Conference (NEMC) in Washington, D.C. The agenda for this meeting is provided as Attachment A, a list of meeting participants is provided as Attachment B, and action items are included as Attachment C. The official certification of the minutes by the Chair or Vice-Chair is included as Attachment D.

OPENING REMARKS, ROLL CALL, MISSION STATEMENT AND OVERVIEW OF BOARD GOALS

Ms. Lara Phelps, Designated Federal Official (DFO) for the Board, and Dr. Henry Leibovitz, Chair of ELAB, welcomed the members and guests to the meeting. The Board members present and participating via teleconference introduced themselves.

Ms. Phelps explained that the Board meets monthly via teleconference and would conduct business as normal during this face-to-face meeting. Face-to-face meetings provide an excellent opportunity for ELAB to hear the challenges and issues that the environmental laboratory community faces. ELAB generally comprises 12 to 17 members, who each serve a 2-year term; members may serve up to three terms. The current Board convened in October 2016, and a membership call for the next cycle will occur in December 2017 or January 2018.

A participant asked whether ELAB is required to include representatives from specific groups. Ms. Phelps responded that the Board is required to have a balance of representation and expertise that allows it to fulfill its charter. A variety of organizations are explored to ensure that this balance in membership is met. The Board has representatives from industry, accrediting bodies, states and academia, and members have diverse methods expertise (air, water, microbiology, chemistry, etc.).

Ms. Phelps explained that the Board operates under the Federal Advisory Committee Act. ELAB's mission is to provide consensus advice, information and recommendations on issues related to enhancing EPA's measurement programs and facilitating the operation and expansion of a national environmental accreditation program. ELAB provides this advice, information and/or recommendations to the EPA Administrator, EPA Science Advisor and/or Forum on Environmental Measurements. Sometimes the Board also submits its advice to the Deputy Administrator or Assistant Deputy Administrator of the appropriate EPA program offices.

APPROVAL OF JULY MINUTES

Dr. Leibovitz reiterated that ELAB meets monthly via teleconference, and the minutes from these meetings now are current and published on the new ELAB website. Each month's minutes are published after approval by the Board. Dr. Leibovitz invited participants to attend the

monthly teleconferences if they would like to introduce new topics; it is not necessary to wait until the face-to-face meeting.

Dr. Leibovitz asked whether any members had comments on the Board's July 2017 minutes; none were offered. Dr. Brian Buckley moved to accept the minutes; Ms. Sharon Mertens seconded the motion. The Board unanimously approved the July minutes, with two abstentions resulting from absent members.

UPDATES FROM THE DFO

Ms. Phelps reported that the Board's charter had been renewed on July 10 for the next 2 years. The renewal was announced in the *Federal Register* the week of July 17. EPA staff are working to make the ELAB website easier to find within the EPA measurements website because Ms. Phelps had received feedback that navigation to ELAB's site was difficult. The ELAB website content continues to be updated, including the history of the Board's recommendations and the Agency's responses.

ACTIVITIES SINCE JANUARY 2017

Since ELAB's last face-to-face meeting in January, the Board has completed the following:

- Clarified the intent of the original ELAB letter sent April 2016 to encourage the Agency to harmonize procedures within test methods as they are reconsidered or developed anew (April 2017).
- Provided recommendations to EPA in support of setting minimum criteria for selected ion monitoring (SIM) methods (April 2017).
- Advised the Agency regarding an ambiguity in EPA Method 6010D calibration verification instructions (April 2017).
- Provided recommendations to EPA regarding whole effluent toxicity (WET) testing proficiency studies (May 2017).
- Advised the Agency on difficulties of testing drinking water for cyanide and provided recommendations (July 2017).

CURRENT TASK GROUP UPDATES

The Board possesses broad expertise and works on a variety of topics identified by ELAB members, the Agency or the environmental laboratory community. The Board addresses these topics through temporary Task Groups. The Task Group leaders or their representatives provided a report of current topics/activities.

In-Line/On-Line Monitoring

Mr. Michael Flournoy explained that the original question to ELAB was whether in-line and on-line monitoring could be used for compliance. The Task Group explored the issue and

determined the rules governing data, finding that quality control (QC) data were not compliant with the rules, and QC samples were not equivalent or available. The Task Group realized that the original charge was too broad in scope, and a new charge was needed. EPA recently revised the charge and presented it to the Task Group. The new charge focuses on nutrient (nitrate and phosphate) monitoring methods and technologies. ELAB is charged with recommending quality assurance (QA) validation approaches from *in situ* continuous monitoring and also providing guidance on where and when continuous monitors may be utilized. The goal is to prepare a report by August 2018 that includes consideration of need, QA and validation recommendations, and any other pertinent recommendations.

Ms. Stacie Crandall (Hampton Roads Sanitation Department) explained that she had volunteered to participate in this effort but had only been invited to one teleconference. She would like pH and total residual chlorine to be addressed before parameters with 28-day holding times. Her department has been working with the Virginia Department of Environmental Quality and EPA on use and verification of in-line and on-line monitoring for regulatory purposes, including developing an Alternate Test Procedure. Use of the methodology has involved more challenges than expected. Mr. Flournoy responded that some methods allow in-line and on-line monitoring for pH, and he could ask EPA if the charge can be amended to address Ms. Crandall's concerns. The Task Group has not met in several months while waiting for the new charge, and he will be sure to include Ms. Crandall in any future teleconference. The relevant question is how technology fits into the regulatory framework; determining whether exceedances are accurate is important to permittees.

Dr. Leibovitz thought that Ms. Crandall appeared to be speaking of best practices, which the Task Group will explore and include in its recommendations. Ms. Crandall explained that the recommendations need to be applicable on a national scale and determine how to handle the 40 CFR 136.7 QA/QC requirements. The required QA makes it a challenge to use in-line and on-line monitoring, and she would like to ensure that the recommendations are applicable to all wastewater facilities. Ms. Flournoy commented that regulations would need to be rewritten so that validation is efficient while still being protective of human health and effective. The Task Group is considering this aspect while attempting to address the issue.

Ms. Phelps reiterated that outside experts always are welcome to participate in ELAB efforts, and she invited the participants to join any Task Group in which they were interested or to which they could provide additional insight to help ELAB's deliberations.

WET Testing

Dr. Leibovitz explained that the Board had been approached by The NELAC Institute's (TNI) WET Expert Committee in early 2016. The Expert Committee had asked ELAB to critique a white paper concerning the QA aspects of WET proficiency testing (PT) and possibly provide a letter of support for TNI's recommendation. ELAB generally agreed with the theme of the white paper, as expressed in its May 2017 letter to EPA. The Board concluded that WET PT testing should use test conditions and procedures that are as consistent as possible. To achieve consistency, WET laboratories should follow the PT instructions. Also, the WET PT program should drop No Observed Effect Concentration values so that laboratories report one LC_{50} endpoint for acute tests and one IC_{25} endpoint for chronic WET tests. EPA responded in June,

stating that the Office of Water (OW) and Office of Enforcement and Compliance Assurance had reviewed TNI's white paper and ELAB's letter, and the Agency understands and appreciates the points made. EPA is exploring options regarding PT parameter consistency and reporting requirements and would like to follow up with TNI and/or ELAB to discuss some of its recommendations. This meeting will occur during the NEMC, so a report out should be made during ELAB's September teleconference.

Drinking Water Certification Officer's Training Course

Ms. Mertens reported that this had been discussed at the Board's January face-to-face meeting. The National Environmental Laboratory Accreditation Program Accreditation Council (AC) sent a letter in December 2016 to EPA's OW regarding concerns about the Agency's Drinking Water Certification Officer's Training Course. Many details were included in the letter, and Ms. Mertens highlighted a few, including the fact that training is difficult to access, the cost of the training is prohibitive, the testing schedule does not allow re-testing in a reasonable timeframe, and the testing does not simulate real-world conditions. To address these issues, the AC suggested that a portion of the training be conducted online, training be available on demand, testing be open book, and testing be offered off-site. EPA also could coordinate with other organizations to improve the training.

The AC presented its concerns directly to EPA and no longer is pursuing this issue actively. Originally, ELAB had planned to support the AC's letter but decided to wait and determine what changes were made in response to the letter. As it appears that changes will not be made, the Board is determining whether it should advise the Agency about the importance of this training and the need to strengthen it. ELAB welcomes the environmental laboratory community's input on this matter.

Mr. Dan Hautman (EPA) explained that the training coordinators met in January to discuss the letter. As a result, a sample exam was sent to the students to give them an idea of what to expect. This was a change from previous years. Additional steps have been taken to prepare students for the training, and he is waiting to see the effects of this additional preparation before making any decisions. Thus far, the chemistry scores and grades appear to have a favorable increase, and the percentage of students passing has increased from previous years. Not all students are expected to pass. Mr. Hautman also noted that the staff assigned to microbiology training has decreased from five to two.

Ms. Mertens asked whether the West Coast training held this year would begin a trend to hold the training outside of Cincinnati. Mr. Hautman responded that EPA tries to hold the training in California every 5 years, and it has been held in Region 2 in the past, but the current funding climate is not amenable to annual training outside of Cincinnati.

Ms. Susan Jackson (South Carolina Department of Health and Environmental Control) noted that the *Cryptosporidium* training is Web-based. She suggested that an online version allow laboratory auditors to audit the course to help them meet the requirement that they audit the course every 5 years. Mr. Hautman explained that *Cryptosporidium* has significantly fewer parameters, which allows it to be more easily taught online. The chemistry course, which has approximately 85 parameters, translates to an associates-level course. No formal radiochemistry

training exists, but the radiological training modules have recently become available online again. One key benefit of the course is having auditors with real-world experience in attendance to provide feedback and serve as informal mentors. Ms. Jenifer Andrews (EPA) added that the microbiology course had only 24 students, and a lot of resources were expended for such a small class, making it hard to justify holding it more than once per year. Auditor participation in the live class is critical.

Dr. Leibovitz asked whether a train-the-trainer course is a possibility. Mr. Hautman responded that the concept is great, but no training fee is associated with the current course, and fees for a train-the-trainer course could bring conflict. Ms. Andrews added that some states, such as South Carolina, do an exceptional job of training the students before they arrive. These states could be used as best-practice examples to help develop a train-the-trainer scenario.

Mr. Flournoy commented that training could be offered at conferences such as NEMC, which personnel from state offices already are attending or have funds to attend. These types of resources should be utilized in addition to partnering with other organizations.

Mr. Ken Lancaster (Texas Commission on Environmental Quality) noted that train-the-trainer courses could be offered online. It will be necessary to determine how to offer these trainings with decreased resources. He asked about the path forward regarding the AC's letter.
Mr. Hautman replied that he would need to develop a response, which he was waiting to do until he could see the effects of the additional preparation provided before this year's courses. He recognizes that more can be done to make the training more accessible.

Ms. Mertens stated that the Task Group would continue to look into this issue and provide an addendum to the AC's letter.

Mr. Carl Kircher (Florida Department of Health) commented that he had received staff feedback that the training was of high quality. Region 4 emphasizes the need to attend the course as a refresher every 5 years, and he would like this taken into account as the training is revised.
Mr. Hautman explained that 5 years is a guideline, and 6 to 7 years is acceptable. Ms. Mertens added that the suggestions have not been to revise the course but rather make it more accessible.

Dr. Buckley noted that budget cuts are occurring at all levels from high school through college and up to federal agencies. He strongly advised that everyone complete the training in-person at least once. True-to-life laboratory courses cannot be completely eliminated.

User-Generated Library Acceptance Criteria

Dr. Buckley explained that EPA-imposed restrictions create confusion on the validation of user-generated libraries for compound identification and confirmation. The National Institute of Standards and Technology (NIST) master library was built using single-quadrupole technology (single quad) and does not always match the standards acquired with newer platforms (e.g., ion trap). Potential charge question(s) to guide this work include the following: What criteria will be required for user-generated library validation/verification? Can existing libraries be adapted with different acceptance criteria? What additional information (e.g., platform make or model, standard certification) will be required to define a library across multiple laboratories? The Board must ensure that the charge question that it explores meets the needs of the community, so

participants were asked to provide input about which of the possible solutions that ELAB should pursue. Dr. Buckley provided some examples of the differences in parameters (e.g., temperature, ionization time, filament emission current, ion injection time) between single quad and ion trap.

Dr. Leibovitz explained that this topic had been introduced and discussed during the previous two face-to-face meetings as a concern for the environmental laboratory community.

Mr. Kircher finds that library searches are useful and consistent for constant testing issues. When following certain methods (e.g., Method 625), the library may not be needed. The library is less useful for certain methods and factors. For certain interfaces (e.g., electrospray, particle beam), rather than using a library, he looks for the factors that the laboratory is proposing. Dr. Buckley clarified that Mr. Kircher found the library less useful in situations in which there is a question of whether the signal is even present.

Mr. Dave Speis noted that this is a very complex issue with many techniques and criteria. Laboratory operators in a production environment generally are not using extensive decision-making processes when looking at the mass spectra; often, they do not have the necessary expertise and skill. More experienced analysts can make these types of decisions and interpretations more easily. Dr. Buckley asked whether dropping the criteria to 90 percent would make the library more useful for less-experienced analysts. Mr. Speis said that, as an operator who performed this analysis routinely, he would rely on his own knowledge and not on a library search.

Dr. Richard Burrows commented that the issue as presented is different from the concerns raised at the prior face-to-face meetings. The concern as previously discussed was that assessors are requiring laboratories to use laboratory-generated spectra rather than the NIST libraries. This practice will result in misidentifications, which then can perpetuate over a long period of time. NIST should be used as a resource to verify that laboratories have the correct reference spectra. Dr. Buckley responded that the problem, as described to him, was that the ion trap was not producing the same spectra as the single quad. The NIST library is useful to confirm a laboratory-generated library in clean conditions, but if the matrix is not clean, it is up to the laboratory operators to determine what is going on. His goal is to identify the criteria to move to the next platform. Dr. Burrows thought that this was a fine effort, but the ultimate concern is that commercial laboratories think it is much better to use the NIST library rather than laboratory-generated libraries, but they are not allowed to.

Mr. Ed Askew (Askew Scientific Consulting) noted that many methods state that the NIST library cannot be used for confirmation of results. This means that the laboratory operator must have enough training and experience to reliably identify mass spectra. Libraries do not take the place of a well-trained analyst. Consensus bodies cannot allow poor-quality analysts to submit data based on someone else thinking for them. It is the analyst's responsibility to produce and interpret the data. Dr. Burrows agreed that it is necessary for the analysts to understand what they are doing, but the community has a tool in the NIST library and needs to use this tool.

Ms. Marlene Moore (Advanced Systems, Inc.) commented that because the drinking water standards do not mention the NIST library, assessors will not let laboratories use it. Analysts

may or may not be able to perform, but the technology is moving so quickly that it is difficult for assessors to keep up. Having the right people doing the right jobs is critical.

Mr. David Friedman (David Friedman Consulting) summarized that he heard two different questions being discussed. The first is in regard to the acceptable level of confidence in a laboratory's identification and its documentation that EPA could set. The second question is how one has confidence in the quality of the database being used. How can the quality of the database be documented? Would assessors have confidence in using the database? If ELAB focuses on the questions separately, it will be easier to move forward.

Mr. Charles Neslund (Eurofins Lancaster Laboratories Environmental) agreed with Dr. Burrows and Mr. Kircher. The issue is about how laboratories are standardizing the tests that they are performing. The standards of the methods used are what must be used for comparison. Trying to fit everything into one box will not work. Standards need to be set in each case, and if new technologies are developed, new standards must be set for each new technology.

Dr. Buckley summarized that although multiple questions about this issue exist, he is not hearing a proposal to radically change the way business is done. Laboratories want to use NIST libraries rather than user-generated libraries; the question is how to use these libraries within the current criteria of what laboratories are allowed. He emphasized the need for analytical expertise in performing the methodology.

Mr. Neslund commented that, in the past, he generated spectra on each instrument based on small mixes without background and then compared this to the NIST library as a reference point, but competitive pressures have devalued the analyst's interpretation process. The NIST library should be the standard.

Dr. Burrows requested that ELAB ask EPA to ensure that methods do not disallow the use of the NIST library.

A participant commented that laboratories must use their own standards, calibration and so forth when generating final data. The argument to use the NIST library is valid only for the initial identification. EPA deals with the final step of the process (legally defensible data), and the NIST library would be used in the first step (unknown identification).

Mr. Hautman stated that a laboratory's spectrum might not match the library exactly, which can create a false negative. He understands the pressure that commercial laboratories face, but he has seen laboratories create problems by rushing the process and compressing it into 5 to 8 minutes.

Mr. Askew reiterated that the NIST library spectra cannot take the place of a thinking analyst. As the *Standard Methods for the Examination of Water and Wastewater* noted when it was first published in 1905, an intelligent, well-trained chemist is needed.

Cyanide Methodology

Dr. Mike Delaney reported that ELAB had sent advice about cyanide methodologies to EPA in June and received a response just before the face-to-face meeting. He summarized the issue, noting that it is common knowledge that cyanide is poisonous and has a nonzero Maximum

Contaminant Level Goal (MCLG) of 200 micrograms per liter. ELAB is aware of issues related to testing drinking water for cyanide and has discussed concerns during several ELAB meetings, including the August 2016 and January 2017 face-to-face meetings. Because cyanide is not carcinogenic or bioaccumulative, EPA seems unlikely to lower the MCLG.

The regulation governing cyanide states that any detected contaminants must be included in the Consumer Confidence Report. Also, cyanide testing is problematic for a number of other reasons. For example, regulatory testing for drinking water is prescriptive, and laboratories must follow the prescribed method, including sample preservation. Low-level cyanide "hits" in treated drinking water, however, are likely to be false positives.

Dr. Delaney provided several examples from his laboratory that show that "fake" free cyanide can form when deionized water is treated like drinking water, dechlorinated with ascorbic acid, and preserved with sodium hydroxide. Fake free cyanide also can form when deionized water is treated like drinking water, dechlorinated with thiosulfate, and preserved with sodium hydroxide. An upcoming article in the *Journal—American Water Works Association*, "Free Cyanide Forms During Drinking Water Free Cyanide Determination," details these findings.

In November 2016, ELAB formed a Task Group on drinking water cyanide methodologies that focused on cyanide MCLG versus toxicology, occurrence versus minimum reporting levels, and method validation versus preservation. The Cyanide Methodology Task Group met five times and developed draft recommendations. The recommendations were discussed several times with the full Board, and the recommendations were fine-tuned and finalized. The Task Group presented its findings, and ELAB voted to send a letter summarizing its eight recommendations to EPA on June 21, 2017.

ELAB received OW's response dated July 31, 2017, which indicated that some of the Board's recommendations would require regulatory action to implement. OW acknowledged that PT samples can be used to assess methods for both free and total cyanide, and state certification should specify where each laboratory is approved to measure free and/or total cyanide. OW indicated that it would discuss this with regional Drinking Water Certification Officers. ELAB appreciates EPA's timely and constructive response, and the Board may want to pursue recommendations that were not addressed in the response.

A participant noted that the problem with moving to just free cyanide is that other forms of cyanide could be ingested. Available cyanide is what is harmful to public health.

Mr. Hautman explained that the Drinking Water Certification Officers met on August 1, and OW instructed them to advise states about this situation. EPA encourages accreditation for free and total cyanide; if total cyanide is positive, then free cyanide must be measured.

SIM

Dr. Delaney provided an overview of SIM gas chromatography/mass spectrometry (GC/MS) and explained that, during a previous ELAB face-to-face meeting, the Board had received a public request to investigate the issues related to SIM GC/MS methods. As a result, ELAB informed EPA about several potential SIM issues surrounding technology and QC, and the Agency indicated an interest in pursuing this effort with ELAB. The established Task Group met several

times and gathered information and reviews from SIM experts. The Board sent a letter on April 17, 2017, detailing its recommendations and providing a list of SIM definitions that were used to frame the recommendations and is awaiting EPA's response. Ms. Phelps explained that she is attempting to determine the status of the Agency's response.

Interagency Data Quality Task Force (IDQTF)/Data Quality Objective (DQO) Process

Dr. Leibovitz explained that ELAB had initiated a task group after hearing concerns from the contract environmental laboratory community that laboratories routinely are left out of the process of developing the DQOs and measurement quality objectives (MQOs) for federal projects. He reviewed the contract laboratories' concerns that prime contractors publish the laboratory request for proposals, often on short notice, and laboratories may not have sufficient time to fully review the Quality Assurance Project Plan (QAPP); ultimately they submit the most competitive bid with the expressed ability to achieve QAPP MQO. The Task Group spoke to the IDQTF Chair, Dr. Jordan Adelson (U.S. Navy), to learn about the process of performance-based contracting and the Federal Acquisition Regulations. The Task Group learned that the IDQTF sets guidelines for laboratory qualification but is not responsible for the level of laboratory involvement in QAPP development for the prime contractor's procurement process. ELAB ultimately provided recommendations to EPA in April 2016. EPA's response in August 2016 indicated that ELAB's recommendations are good science, and further communication is required. The Board has been awaiting the opportunity to further discuss this issue with the IDQTF.

Dr. Adelson explained that the IDQTF appreciates the attention that ELAB has brought to this issue and stressed that communication between the prime contractor and the laboratory is crucial. The IDQTF would like to discuss this at one of its Executive Council meetings, but one has not been held in the last year. Dr. Adelson and ELAB will work together to facilitate the IDQTF members' attendance at an upcoming Board teleconference discuss the issue. Dr. Adelson also explained that the Department of Defense (DoD) is moving to performance-based contracting, and although he is committed to discussing this issue, expectations must be managed. He acknowledged that prime contractors see laboratories as a "black box" commodity, and only the price is important. When the laboratories meet the QAPPs, but the QAPPs don't meet the project goals, the DoD pays in the end. The DoD has laboratory requirements and laboratory accreditors that set requirements, but the onus to ensure that project requirements are met is on the prime contractors. The DoD relies on the prime contractors to have the technical expertise because the DoD does not always have the required specific technical expertise.

Dr. Leibovitz noted that it would be interesting to see the savings benefits that occur when the QAPP process is not rushed. Dr. Adelson emphasized that poorly planned projects often significantly increase costs.

Mr. Friedman commented that EPA recently developed a document on reinventing the process. It does specify of how to accomplish this, but a significant portion of the document discusses the same issues that have been discussed during this conversation. He suggested that ELAB review the document. He also volunteered to work with the Board to develop a training course with the Independent Laboratories Institute.

Dr. Anand Mudambi (EPA) noted that this type of discussion has been occurring for 30 years, and the issue has not been fixed. He cited a 1989 example of a great deal of U.S. Army Corps of Engineers data being rejected because of this issue. Prime contractors need to be educated, and he agreed with Dr. Leibovitz that he would like to see the quantification of savings when laboratories are included early in the DQO process. Dr. Leibovitz asked whether commercial laboratories have a sense of these costs or a method to quantify them. Mr. Friedman explained that laboratories could demonstrate that performing repeated analyses is not cost-effective. Dr. Dallas Wait noted that the DQO process must be completed to develop a QAPP. Mr. Friedman had doubts that very many went through this process. Dr. Leibovitz noted that prime contractors may not understand laboratory uncertainties, and this is an area in which laboratories could bring their expertise to ensure a better outcome. Dr. Adelson explained that the QAPP process involves a systematic planning process that includes DQO development. The issue is that DQOs are not being communicated properly; this is what efforts will focus on, as well as educating the prime contractors that their chemists may not know the best method or even all of the available method options.

Methods Harmony

Dr. Wait explained that the Board had, through an iterative process, provided examples of areas in which EPA could harmonize methods. Based on its response to these recommendations, the Agency did not appear to understand ELAB's intent, so the Board sent a clarification letter in April 2017. EPA has acknowledged and appreciates the Board's thoughts and efforts, and ELAB will continue to pursue methods harmonization as it deliberates other issues, incorporating this issue into its advice letters when possible.

OPEN DISCUSSION/NEW ITEMS

Mr. Kircher commented that the Safe Drinking Water Act requires the analysis of PTs once per year for regulated drinking water analytes. Asbestos, an analyte in Part 141.23, has PT samples available only in limited situations. He requested that ELAB recommend to EPA that PT samples be made available for laboratories that do not have primary accreditation in the state of New York, which makes the PT samples available to its laboratories. Mr. Hautman explained that he had discussed establishing a water program for asbestos with RTI, a primary vendor of bulk asbestos PT samples. RTI performed a pilot study in the fall of 2016 but had limited participation. A full pilot with 17 laboratories was completed in July 2017, and the company is moving toward becoming a routine provider of asbestos PT samples for water.

Dr. Burrows noted that the Board had advised EPA regarding the analysis requirements and pH preservation for acrolein and acrylonitrile, providing data that indicate that acrolein and acrylonitrile are stable at a pH of 2. Although drafts of SW-846 and 40 CFR 136 appeared to correct the issue, the released documents did not include the recommended changes, and confusion still exists in the footnote to the table. Ms. Phelps will provide the Board members with the data that ELAB used to formulate its prior recommendations and the advice letter.

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. Dr. Leibovitz will contact Dr. Mahesh Pujari, who had to leave the

meeting early, to determine whether this can be explored in the PCB issue that Dr. Pujari is working on with Mr. Adrian Hanley (EPA).

REVIEW ACTION ITEMS/CLOSING REMARKS/ADJOURNMENT

Ms. Kristen LeBaron (The Scientific Consulting Group, Inc.) reviewed the action items identified during the meeting, which can be found in Attachment C.

Citing no additional comments or issues, Dr. Leibovitz asked for a motion to adjourn. Dr. Wait made the motion, which Ms. Patty Carvajal seconded. The meeting was adjourned at 4:44 p.m.

Attachment A

ENVIRONMENTAL LABORATORY ADVISORY BOARD (ELAB)
Face-to-Face Meeting/Teleconference: 866-299-3188/9195415544#
Grand Hyatt Washington, Washington, D.C.
August 7, 2017; 1:00 – 5:00 p.m. EDT

AGENDA

1:00 – 5:00 p.m.	Opening Remarks, Roll Call, Mission Statement and Overview of Board Goals
	Discussion/Approval of July 2017 Minutes
	Updates From the Designated Federal Official
	Activities Since January 2017
	Current Task Group Updates
	Open Discussion/New Items
	Review Action Items/Closing Remarks/Adjournment

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
N	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
Y	Mr. Michael Flournoy	Eurofins Environment Testing USA Representing: American Council of Independent Laboratories
N	Dr. Keri Hornbuckle	The University of Iowa Representing: Academia—The University of Iowa
Y	Dr. Deyuan (Kitty) Kong	Chevron Energy Technology Company Representing: Chevron
Y	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 (via teleconference)	Dr. Mahesh Pujari	City of Los Angeles Representing: National Association of Clean Water Agencies
Y (via teleconference)	Mr. Elan Rieser	Con Edison Representing: Utility Water Act Group
Y	Dr. A. Dallas Wait (Chair)	Gradient Representing: Consumer Products Industry
Y	Ms. Debra 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)
Y	Dr. Jordan Adelson (Guest)	U.S. Navy
Y	Ms. Jenifer Andrews (Guest)	EPA ORISE Fellow
Y	Mr. Ed Askew (Guest)	Askew Scientific Consulting
Y	Ms. Stacie Crandall (Guest)	Hampton Roads Sanitation Department
Y	Mr. Ed Askew (Guest)	Askew Scientific Consulting
Y	Dr. Richard Burrows (Guest)	TestAmerica Laboratories, Inc.
Y	Mr. David Friedman (Guest)	David Friedman Consulting
Y	Mr. Dan Hautman (Guest)	EPA
Y	Ms. Susan Jackson (Guest)	South Carolina Department of Health and Environmental Control
Y	Mr. Carl Kircher (Guest)	Florida Department of Health
Y	Mr. Ken Lancaster (Guest)	Texas Commission on Environmental Quality
Y	Ms. Marlene Moore (Guest)	Advanced Systems, Inc.
Y	Dr. Anand Mudambi (Guest)	EPA
Y	Mr. Charles Neslund (Guest)	Eurofins Lancaster Laboratories Environmental
Y	Mr. Dave Speis (Guest)	Retired
Y	Mr. Dan Wright (Guest)	Shealy Environmental Services

Attachment C

ACTION ITEMS

1. Ms. LeBaron will finalize the July meeting minutes and send them to Ms. Phelps via email.

2. Mr. Flournoy will include Ms. Crandall in future In-Line and On-Line Monitoring Task Group meetings and correspondence.

3. Mr. Flournoy will discuss the revised In-Line and On-Line Monitoring Task Group charge with EPA to address Ms. Crandall's concerns.

4. ELAB and IDQTF will work together to facilitate the IDQTF members' attendance at an upcoming Board teleconference to discuss issues related to laboratory involvement in the contract DQO process.

5. Ms. Phelps will provide the Board members with the pertinent information ELAB used to formulate its prior recommendations about acrolein and acrylonitrile.

6. Dr. Leibovitz will contact Dr. Pujari about the PCB issue.

Attachment D

I hereby certify that this is the final version of minutes for the Environmental Laboratory Advisory Board Meeting held on August 7, 2017.

Signature, Chair

Dr. Henry Leibovitz

Print Name, Chair