THE INSTITUTE REVIEW

A publication of The NELAC Institute

June 2020

THE INSTITUTE REVIEW
June 2020
Table of Contents

THE INSTITUTE REVIEW
June 2020

2020 National Environmental Monitoring Conference

The Environment in 2020: Past, Present, and Future

August 3—21, 2020

By Lara Phelps, USEPA, and Jerry Parr, TNI

Due to concerns over the COVID-19 pandemic, the Symposium Steering Committee has decided to make this year's Symposium a virtual conference, with the focus on the technical presentations for the NEMC portion of the meeting. This means there will be no committee meetings of The NELAC Institute (TNI) and no training courses.

The Conference will feature 139 oral presentations and 40 poster presentations, organized into four tracks. There will also be 4 plenary presentations and 8 lunch presentations. Attendees can register for the tracks they wish to attend or register for all four tracks and view recordings of all presentations after the conference. Some of the highlights for the week include:

- A special half-day general session with a keynote speaker focused on the conference theme and updates from EPA program offices;
- A virtual exhibit program showcasing the latest innovations in environmental monitoring;
- An innovative new technology showcase; and
- Two special keynote presentations on the conference theme.

The titles of the presentations, abstracts, and authors can be found on the NEMC website.

ANALYTICAL CHEMISTRY TRACK (45 Presentations)

- Advances in High Resolution Mass Spectrometry and Its Emerging Environmental Applications
- Current Topics in Microbiology
- Drinking Water
- Air Methods, Monitoring and Technology
- Wet Chemistry Automation
- Metals Analysis and Remediation

ENVIRONMENTAL MONITORING TRACK (39 Presentations)

- 50 Years of Progress in Environmental Monitoring
- Advances in Field Sampling, Measurement, and Sensor Technologies
- Shale Oil and Gas
- Academic Research Topics in Environmental Measurement and Monitoring
- Citizen Science
- Collaborative Efforts to Improve Environmental Monitoring
- New Organic Monitoring Techniques

LABORATORY OPERATIONS AND MANAGEMENT TRACK (30 Presentations)

- Identifying and Combatting Inappropriate Laboratory Practices
- Public and Private Environmental/ Public Health Laboratory Partnerships
- Best Management Practices for Environmental Laboratories
- Building Consensus Methods to Support Environmental Laboratories
- Laboratory Informatics
- Data Quality, Management, and Review
- Operational and Advocacy Issues Impacting the Environmental Laboratory Industry

PFAS TRACK (27 Presentations)

- Polyfluoroalkyl Substances (PFAS) in the Environment (Session 1)
- Polyfluoroalkyl Substances (PFAS) in the Environment (Session 2)
- Polyfluoroalkyl Substances (PFAS) in the Environment (Session 3)
- Polyfluoroalkyl Substances (PFAS) in the Environment (Session 4)
- Polyfluoroalkyl Substances (PFAS) in the Environment (Session 5)

INNOVATIVE NEW TECHNOLOGY SHOWCASE

Thursday, August 13, 2020; 3:15 – 4:45 pm EDT

For the fifth year in a row, up to twelve (12) organizations will showcase innovative new technologies – sensors, apps, and personal monitoring devices, among others – and network with managers and senior staff from commercial laboratories; the regulated community; the Agency's regulatory program offices, regional and headquarters compliance staff; state compliance officials; tribal nations; the international community; the exhibitor community; and others involved in or affected by the Agency's policies and procedures.

VIRTUAL EXHIBIT HALL

Analogous to booths at scientific conferences, the Virtual Exhibit Hall (VEH) will be a space where companies share information about their products and services, showcase their latest innovations, and connect with research collaborators and customers. If you are interested in becoming an exhibitor, please contact us at joel.holtz@nelac-institute.org complete the SIR Summary.

THE INSTITUTE REVIEW
June 2020

Summary of the 2020 Forum on Laboratory Accreditation

By Lynn Bradley, TNI

The 2020 Winter Forum on Environmental Accreditation was held February 3-6, 2020 in Newport Beach, CA. With 345 attendees, this meeting shattered the record for the most attendees at a winter meeting since TNI was formed. The special sessions at this meeting on a variety of topics were quite successful and the Advocacy committee is considering a similar structure for future meetings, with reduced time for TNI committee meetings. In addition to TNI committee meetings, the following other sessions were held:

- Resources for Implementing the 2016 Standard,
- TNI Annual Report,
- Mentor Session on Records and Record-Keeping,
- Assessment Forum Focusing on Non-Governmental Accreditation Bodies,
- Special Session on Case Studies of Non-Conformances,
- Special Session on How Accreditation Improved my Laboratory, and
- Special Session on Implementing a Quality Management System.

Presentations from all of these sessions are on the TNI website under Training and Meetings/Past Conferences. Below is a summary of committee activities during the public meeting sessions.

Quality Systems

This group held two (2) sessions, plus a small group meeting on Technical Director Qualifications, with the NELAP AC. One session identified areas of the module to work on and the other reviewed SIRs.

WET Expert Committee

The group reviewed the most recent proposed concept for analyst initial demonstration of competency (DOC) and also discussed whether or not chemistry support measurements need to be accredited if reported (no). They will review the entire WET module (V1M7) against the Quality Systems module (V1M2), but settling on changes to those two major items has been the most important thing to resolve before moving forward.

PT Expert Committee

This lively session gave an overview of the committee and its activities, and solicited feedback on the 2016 PT Standard. Since the new PT scoring was implemented on January 31, they reviewed the PTRL reporting and evaluation scheme.

PT Program Executive Committee

The committee discussed major issues pending for 2020 and clarified the PT reporting scheme as implemented on January 31 for attendees. The major issues are: 1) implementation of the two-technology division for MNP PTs (tubes and wells), 2) addressing Analyte Request Applications (ARAs) for qualitative Aroclor PTs, and 3) reporting of isomers for PTs where multiple isomers exist. Also, an ARA proposal to establish a radiochemistry non-potable water FoPT table awaits review. CAS numbers have been added to all FoPT tables and the resolution of the above ARAs will be followed by updates of all FoPT tables during 2020.

Microbiology Expert Committee

The committee finalized the implementation guidance for blanks and an email vote will be initiated. After that, they opened the floor for discussion of prior issues and items to be updated in the next revision of the standard module.

Chemistry Expert Committee

This working meeting had good attendance. They discussed calibration for pH data, which might arrive as an SIR. They then focused on discussion of Technical Manager qualifications and terminology, since many labs are struggling to meet the current requirements with staffing. Two (2) SIRs were discussed and responses approved, then potential modifications to the module of the Standard were discussed, especially DOCs.

Asbestos Expert Committee

This meeting had a small, but active, audience. The committee described where it is in the standard development process, with the comment period on the Notice of Intent to Revise the Standard (NOI) being closed. A draft Voting Draft Standard (VDS) has received initial comments. Posting of the actual VDS may be delayed, depending on ANSI's response to TNI's submitted corrective actions that are presently under review. In any event, the VDS will be presented at conference in August.

Laboratory Accreditation Body Expert Committee

The committee continued working through comments from the Outline of Proposed Changes and draft V2M1. Some language needs to be developed and reviewed to address a few comments and the recommendations of the Field Activities Task Force need to be reviewed for possible inclusion, but the next step will be publication of the VDS later this year.

Radiochemistry Expert Committee

This was not a working meeting, but rather a review of the committee's activities, including membership, Technical Manager qualifications, and revisions to V1M6 that are underway since publication of the NOI last year. The next step is publication of the Outline of Proposed Changes and a draft module for comment. A public meeting (probably a webinar) planned for April 23. The final training session of the five-part series will be offered at the end of conference.

Field Activities Committee

FAC hosted a web presentation by its Chair, Scott Haas, with thirty-five (35) people participating, to discuss the FAC's purpose and activities, and its revision of the Standard. They focused on the revision of Volume 1 of the FSMO Standard and considered scopes of accreditation for Volume 2.

Stationary Source Audit Sample Expert Committee

The committee is meeting twice monthly now as it continues work on revising its Standard. They have created a style guide for SOPs for SSAS and are preparing an SOP 6-100 for pilot studies for source audit samples. This SOP will be shared with Shawn Kassner for coordination with a similar SOP being developed for NEFAP. The committee is hoping for a second provider to be identified soon.

NELAP Accreditation Council

The Council reviewed the implementation status for the new Standard (for all ABs present), discussed LAMS issues with Dan Hickman, and then discussed PT issues needing resolution with the PTPEC Chair, Maria Friedman.

Laboratory Accreditation Systems Executive Committee

In reviewing the committee's activities for 2019, Bob Wyeth gave an update on progress in revising the Consensus Standards Development SOP 2-100, which led to good discussion. This also prompted conversation about revising the SIR Management SOP 3-105 (especially expectations for timeframes) and the need for a separate SOP for Implementation Guidance documents. Dan Hickman gave an update on the generic application and some changes in LAMS. The Chair explained the survey that LASEC hopes will help with understanding whether significant timeline non-compliance exists within the AB community. The Assessment Forum, coordinated by Judy Morgan, addressed "Working with Third Party Assessors" and had over a hundred attendees. IAS was announced as a new TNI NGAB. The Mentor Session, organized by Dorothy Love, was titled "Rule Your Records" and was intended to explain ways to address documents and records while complying with the Standard. Again, over a hundred people were in attendance.

Advocacy Committee

The committee meeting was Wednesday morning, where participants discussed the draft Strategic Plan items assigned to Advocacy, in particular the development of a mentor program. Jerry discussed case studies of findings that affect data quality. This discussion may be repeated at the summer conference.

Then, two (2) different sessions were offered. Wednesday afternoon focused on "How Accreditation Improved My Lab" with six (6) presenters from across the nation and discussed substantive improvements that took place in their labs as a result of accreditation. A Thursday day-long session focused on the Quality Systems module (V1M2), addressing nineteen (19) topics with nine (9) panelists plus audience feedback and questions.

TNI Board Approves 2020-2025 Strategic Plan

By Carol Batterton, TNI

In recent action, the TNI Board approved the Strategic Plan for 2020-2025. This Plan was initially developed during a two-day meeting with twenty-one (21) members of the TNI Board, Expert Committee Chairs, and TNI staff last October. In subsequent discussions, the plan was refined and fine-tuned into its final format.

The 2020-2025 plan contains three of our previous core strategies:

- **Strategy 1: Establish and maintain national programs for the accreditation of environmental laboratories, field sampling and measurement organizations, and other organizations involved in the generation of environmental monitoring data.**
- **Strategy 2: Promote TNI as the premier resource for all activities related to generating environmental measurement data.**
- **Strategy 3: Continue to maintain and improve infrastructure to ensure TNI's future success and financial sustainability.**

These strategies describe and support our core programs and most of the goals and objectives under these strategies remain unchanged. During the planning session, new opportunities were identified for TNI to consider. Board members and committee chairs agreed that we did not have enough information in most cases to make an informed decision about whether TNI should pursue these opportunities, but that we should investigate further. So, we added a fourth strategy to allow us to explore the feasibility of these ideas for expansion and enhancement of our current programs. This new strategy states:

- **Strategy 4: Explore new opportunities to provide additional benefits to our stakeholders and support financial sustainability.**

Strategy 4 includes the following six (6) goals for TNI to explore over the next five (5) years:

4.1 Explore the feasibility of developing programs to document individual competency

This goal calls for the TNI Board to establish a task force to explore and make recommendations regarding programs to document competencies for Quality Managers, Technical Managers, Assessors, Samplers, and others as appropriate.

4.2 Explore the feasibility of developing implementation guidance, and ultimately, a standard for laboratory consumables

Again, the TNI Board will establish a task force to explore and make recommendations on developing implementation guidance for laboratory consumables. This task force should consider forming an Expert Committee to turn this guidance into a standard if deemed appropriate, once the initial effort is complete.

4.3 Explore the feasibility of establishing a mentoring program for laboratories

A sub-committee under the Advocacy Committee will explore and make recommendations on developing a mentoring program, which considers various approaches such as one-on-one sessions, conference calls, webinars, and electronic bulletin boards.

4.4 Reach out to non-NELAP states to see how TNI can provide benefits to their program

TNI will expand the Ambassador Program and pursue opportunities to meet with non-NELAP states to discuss use of LAMS, FoPT tables, and evaluation of their programs.

4.5 Explore and make recommendations on the need and feasibility for developing standards for sensor technology

The TNI Board will establish a task force to explore and make recommendations on the need to develop standards for sensor technology.

4.6 Explore the acceptance of TNI standards internationally and make recommendations

Explore the extent to which TNI standards are accepted internationally and make recommendations on next steps, if any.

As Alfredo Sotomayor, Chair of the TNI Board, noted in his article on strategic planning in the last newsletter,

"A plan is just a plan, even a very important one as is a strategic plan. The completed plan will be there to remind us of where we want to go and where we do not want to go. But things change; they always do. And so, the plan is a roadmap, not scripture."

Things have definitely changed in our world since we last met for strategic planning, and our timeframes for exploring some of these opportunities may not be what we initially envisioned. However, we now have the map to keep on us track and the next five (5) years to get us there!

THE INSTITUTE REVIEW
June 2020

The Environmental Monitoring Coalition

By Jerry Parr, TNI

The US Environmental Protection Agency (EPA) created the Environmental Laboratory Advisory Board (ELAB) on July 1, 1995 to enhance EPA's measurement programs and to facilitate the operation and expansion of a national environmental accreditation program. In the past twenty-five (25) years, ELAB produced over thirty (30) reports on a variety of topics relating to relating to environmental measurements. On October 17, 2019, the EPA, as part of Executive Order 13875, Evaluating and Improving the Utility of Federal Advisory Committees, disbanded ELAB. In response to this action, four (4) organizations:

- the American Council of Independent Laboratories,
- the Association of Public Health Laboratories,
- The NELAC Institute, and
- the Water Environment Federation

came together and created a new group, the Environmental Monitoring Coalition, to continue the work of ELAB. The Charter for this new group is shown below.

1. **PURPOSE.** EMC's purpose is to develop consensus recommendations and advice on environmental monitoring issues for submittal to federal and state agencies.
2. **MANAGEMENT AND ADMINISTRATIVE SUPPORT.** EMC is supported by the EMC partners: trade associations and other related groups interested in environmental data quality. Each of the partners may appoint one individual to serve as a designated member of EMC. Each EMC partner will provide administrative support to EMC on a rotating basis, to be determined at the beginning of each EMC year. This will include organizing calls, developing agendas with the chair, hosting the call, and scribing meeting minutes as appropriate.
3. **OBJECTIVES.** The EMC develops consensus recommendations and provides advice to federal and state agencies and stakeholder groups that will reflect the opinions and positions of its constituents on issues that include, but are not limited, to:
   - Validating and implementing methods for sample collection and for biological, chemical, radiological, and toxicological analysis;
   - Developing scientifically rigorous, statistically sound, and representative measurements;
   - Encouraging the method performance approach in environmental monitoring and regulatory programs;
   - Employing a quality systems approach that ensures that environmental monitoring data are of known and documented quality;

- Facilitating the operation and expansion of a national environmental accreditation program; and
- Providing input on specific method implementation and monitoring issues.

4. **COMPOSITION.** EMC membership will consist of approximately fifteen (15) members with an interest in environmental monitoring, including one individual selected by each EMC partner to represent their organization, and others from among, but not limited to: state laboratory associations, state regulatory agencies, other trade associations, academia, federal and state agencies, data users, and environmental monitoring vendors including consulting firms and laboratory assessment bodies. The EMC may establish subcommittees, workgroups, and task forces as it finds necessary to carry out its duties.

   Note: The initial EMC will include David Friedman from ACIL, Jerry Parr from TNI, and Sarah Wright from APHL to assist in developing the basic structure and operation. These individuals may or may not stay involved long term. The initial EMC members will serve a three-year term and will establish policies for future membership.

5. **MEETINGS.** It is expected that the EMC will meet at the National Environmental Monitoring Conference. EMC members will need to provide their own funding to attend. TNI will cover NEMC meeting costs. It is expected that EMC will meet by teleconference every two (2) months or more frequently if timely action is required on some specific topic. Other teleconference and in-person meetings will be called as needed. EMC will not compensate members for their service.

6. **POLICIES AND PROCEDURES.** The EMC may adopt policies and procedures as necessary to carry out its business.

7. **REPORTING.** At the annual meeting, EMC will summarize actions from the previous year and goals for the upcoming year. EMC will also routinely provide minutes from its meetings to EMC partners and to

California Adopts TNI Standard into New Regulation

By Christine Sotelo, California Waterboards

On May 5th, the California State Water Resources Control Board adopted a rulemaking package that will require the approximately 650 laboratories accredited by the California Environmental Laboratory Accreditation Program (CA ELAP) to implement the 2016 TNI Standard (with two exceptions) by October 1, 2023. About choosing the TNI Standard to apply to all the Board's labs, Chair E. Joaquin Esquivel said, "the adoption of national standards will benefit all Californians by ensuring ELAP labs are meeting common core requirements and generating data of highest quality."

The Board is committed to assisting laboratories make the transition to using the TNI quality system over the next three (3) years by providing several tools and trainings, plus the extended implementation period.

CA ELAP thanks the TNI community for its support and looks forward to continuing to collaborate on important initiatives, such as the Mentor project, to support the shared mission of the protection of public health and the environment.

TNI Expert Committee Openings for Spring 2020

By Paul Junio, Northern Lake Service Inc.

TNI's "Procedures for Expert Committee Operations (SOP 2-101)" requires that we annually post the number of openings available for Committee Members for each of our Expert Committees. Membership on an Expert Committee can be time-consuming, but also very rewarding. If you feel that you are able to provide input on the basis of your interest category (generally these are Accreditation Body, Laboratory, or Other), and have an interest in joining a committee, the table below shows the number of committee members present on each Expert Committee as of March 28, 2020, along with the interest category that they represent.

Committees may have from five (5) to fifteen (15) members and must maintain balance among the different stakeholder groups. Balance means that no one stakeholder group can be in a position of dominance (representing more than 50% of committee membership). Also, Committee membership is limited to no more than two members of the same organization sitting on a particular Expert Committee, unless approved by the TNI Board of Directors. TNI members are allowed to serve on more than one expert committee at a time. Choose wisely if you feel that you can do that!

Committee	**AB**	**Lab**	**Other**	
Asbestos	2	3	2	
Chemistry	4	6	3	
Microbiology	5	4	5	
Quality Systems	5	4	6	
Radiochemistry	5	2	5	
WETT	5	7	3	
Laboratory Accreditation Body	4	3	5	
Field Activities	4	3	2	
	AB	**Lab**	**Other**	**PT Provider**
PT Expert*	4	6	0	3
	Regulator	**Lab**	**Provider**	**Source Tester**
Stationary Source Audit Sample*	2	3	1	1

* *The Proficiency Testing Expert Committee has an additional interest category for PT Providers. The stakeholder groups for SSAS are different from the other committees, as noted in the table.*

Expert Committee Openings cont.

All TNI members are welcome to apply by filling out an application. You will be notified that your application has been received. New members are generally added at or during the first expert committee meeting of the calendar year, although they may be added at any time. Expert Committee members serve a three-year term, with the possibility of serving a second consecutive term.

If you have an interest in a committee that is already full or cannot accommodate another person in your stakeholder group, remember that you can also participate as an Associate Committee Member. Any TNI Member can request to become an Associate Member of any Expert Committee, by contacting the Program Administrator or Chair of the particular committee. If you are interested, but still have questions, feel free to contact me at paul@nlslab.com, and I will help where I can.

Member Spotlight: Jessica Jensen

By Zonetta English, Louisville MSD

Jessica Jensen started her career in the environmental industry by purchasing a small commercial laboratory in Wichita, KS in 2008. She was the Quality Assurance Officer until 2015, when she also took over the title of Technical Director. She continued to work there until recently when she took a position with the City of Kansas City, MO as the Laboratory Assistant Manager for KC Water.

Jessica is the very proud dog mom of a mini-Aussie named Scout. She enjoys everything sports, as many of you may remember from the recent California conference; she is a diehard Kansas City Chiefs fan and could be seen wearing her jersey proudly after they won the Super Bowl this year. Jessica is also a cancer survivor that has battled the disease three (3) times! This is why Jessica has such a zest for life. She also enjoys traveling the world with family and friends to experience all the adventures this wonderful world has to offer.

Her involvement with TNI began in 2014, at the winter Meeting in Louisville, as a result of the urging from her former accreditation officer, Michelle Wade. Since that conference she has become more involved in the quality systems committee and recently became the Chair in 2019. When asked: *"Why do you support the National Environmental Lab Accreditation Program?"*, Jessica responded: *"When I first got started in this business I had no idea what I was doing. The TNI Standard gives you direction of where you need to go. They have templates that spell out exactly what to do. I continue to be involved and come to the conferences, because of the networking and connection I have made over the years, both professional and personal".*

THE INSTITUTE REVIEW
June 2020

ChairSpeaks: "Musings from the TNI Chair"

By Alfredo Sotomayor

My Lessons

"Once you stop learning, you start dying." ~A. Einstein

It was inevitable, but not my pleasure, that I would have to address the pandemic. Diverting your attention to other topics could have given you and me respite, but it could have been perceived inconsiderate, and at best, tone-deaf.

As I write, we are in the thick of the crisis and approaching its apex quickly. No one can predict the denouement of this national emergency, but by the time you read this, all of you will have been indelibly affected in one way or another by the catastrophe.

Statistics and figures on the pandemic change so rapidly that discussing them here invite instant irrelevance. So… I thought I would instead share some of what I have observed, learned, and continue to learn about my reactions to this emergency, hoping these musings have longer staying power.

I do hope that when this goes on print, the crisis has greatly abated for all.

How We Are Wired

After the initial rumblings became real, I saw many reactions from relatives, friends, and coworkers, but I grouped them, for simplicity, into two sets: those that were afraid to get infected, and those that were afraid to infect others. Within each set, the reactions ranged in strength, but I could not spot a correlation between the health status of individuals and the type of reaction. Some very healthy people reacted the way you would expect compromised-health persons would, and vice-versa.

Lesson Learned

There is no reaction profile that is better. Each one is natural and has inherent benefits. Your fear of contracting the virus and mine of passing it to you may be complementary. It is hard to predict from past actions and behaviors during non-medical emergencies how people will react to public health confirmed threats.

What I Am Still Learning

I must continue to explore effective ways to channel my disposition to keep others safe into ways that help them deal with the crisis on their own terms.

Plans

Always have a plan and plan for the unexpected, that is what we have always been taught. But who would have imagined Monty Python's "Spanish Inquisition" would hit us absurdly and unexpectedly in the form of a new, deadly virus? It is not that we do not learn; it is more that we easily forget.

Where I work, we used a "Business Continuity Plan", originally designed for dealing with a physical obliteration of infra and super structure, to address the current emergency and adapted it to keep us operating. So far, so good.

Lesson Learned

Having a plan, no matter how tangential, is better than having none. Plans can be adapted and refined to fit the occasion. Emergencies, at first, do not give you enough time to brainstorm and debate possibilities in the best setting. Having no plan is a vulnerability.

What I Am Still Learning

Do not put off preparing for the unexpected. If the unexpected were expected, it would not surprise anyone, and it would be easy to prepare for. Continue connecting and paying attention to your prognostication sources so that you are not the first one to be surprised. Pay attention to the pulse of your staff, the industry, and the universe.

Messaging Abundance

At first, I was grateful to receive messages ensuring me that my bank, laboratory reagents and standards suppliers, and gym would be there for me in these times of need. Later, I was so inundated with perfectly composed, packaged, corporate messages that I stopped paying attention, reading, and watching. I have gotten inured to the "in these uncertain times" and "because we care" opening lines.

Lesson Learned

Frequent communication is essential during a crisis, but overdoing it overwhelms and stops the message from getting across. False sincerity is oxymoronic and easy to spot and ignore.

What I Am Still Learning

To strive to communicate effectively, without overused, pat phrases, in a manner that depicts my sincere concern, and gets my recipient to not tune-me-out because I sound or read like static interference. When a response from the heart is called for, speak from it.

Changing Notions

Reluctant opinions about working from home, where they still exist, will shrink immensely. Just think about how many are connected to work remotely and how much they accomplish when not on site. Can you imagine how we would have coped if the pandemic had hit us 30 years-ago, just at the birth of "the Internet"?

And on the physical, tangible realm, this crisis has shown us how simple gestures, like washing hands thoroughly and staying home when feeling sick, can still be simply effective. The habits we have established now have a great chance of endurance past the pandemic.

Lesson Learned

Proximity is not required for connectivity. Our Institute has functioned without gaps while being a mostly virtual, not face to face, connected organization. There is no reason to think that same model would not work in other organizations and contexts. Paradoxically, we can now be isolated and still be almost completely connected.

What I Am Still Learning

Despite other forms of connectivity, none of them can take the place of a real, face-to-face encounter. Virtual meetings need to be supplemented with good "real" ones. How we get to the right balance, I continue to try to figure: safety, economics, value, tangential experientials, and the un-apologetical value of a spontaneous hug, among so many others.

Last Observations

The environmental laboratory analysis and accreditation community has demonstrated infinite commitment and tenacity to its mission during this emergency. Commercial laboratories have continued to support our needs without noticeable gaps, and non-commercial laboratories have not budged in supporting internal operations and meeting regulatory requirements. Our accrediting authorities continue to exert their functions and have shown the right dose of flexibility to deal with this national emergency. Honoring each other's forte has yielded exemplary results.

"Man is a social animal", Aristotle said many, many, years ago. Neither self-sufficient gods nor demons, we seek the opinion, approval, intervention, amusement, validation, empathy, evaluation, comfort, understanding, wisdom, company, and even contrariness of one another.

Knowing that there are many, many ways of doing this while this crisis ensues, remember to...

Only connect.

Alfredo

Alfredo