

The NELAC Institute (TNI) Annual Report February 10, 2021

The NELAC Institute (TNI) is pleased to present its annual report summarizing accomplishments for 2020 and plans for 2021.

The NELAC Institute (TNI) is a 501(c)(3) non-profit organization whose mission is to foster the generation of environmental data of known and documented quality through an open, inclusive, and transparent process that is responsive to the needs of the community. The organization is managed by a Board of Directors and is governed by organizational bylaws. TNI's vision is a true national accreditation program, whereby all entities involved in the generation of environmental measurement data within the United States are accredited to one uniform, rigorous, and robust program that has been implemented consistently nationwide and focuses on the technical competence of the entity pursuing accreditation. TNI believes such a program will improve the quality and reliability of environmental data used by federal and state agencies.

To support this mission, TNI operates the following programs and related efforts:

- 1. Administration
- 2. Consensus Standards Development Program (CSDP)
- 3. National Environmental Field Activities Program (NEFAP)
- 4. National Environmental Laboratory Accreditation Program (NELAP)
- 5. Proficiency Testing Program (PTP)
- 6. Task Forces and Other Activities

Appendix 1 contains a list of the TNI Board of Directors, all committees and all other groups. The following individuals are recognized for their service as committee chairs whose term ended in 2020:

- Nicole Cairns, PT Expert
- Robin Cook, Microbiology
- Kirstin Daigle, NEFAP Executive Committee
- Maria Friedman, PT Executive Committee
- Judy Morgan, Laboratory Accreditation System Executive Committee
- Tom Widera, Stationary Source Audit Sample Committee

1.0 ADMINISTRATION

1.1 Board of Directors

The TNI Board "supervises, controls and directs the business affairs of TNI" by reviewing monthly program reports, reviewing and approving policies and Standard Operation Procedures (SOPs), reviewing financial performance, and taking on other related activities.

2020 Accomplishments

- Finalized the 2020-2025 Strategic Plan.
- Initiated an effort to look at the use of the term "Quality System" which led to a change to "Quality Management System."
- Approved the formation of the Training Committee, the Competency and Consumable Task Groups and the Mentoring subcommittee of the Advocacy Committee.
- Approved a marketing plan for NEFAP and related performance metrics.
- Approved TNI's participation in the newly formed Environmental Monitoring Coalition.
- Adapted to the impact of COVID by successfully moving summer 2020 and winter 2021 meetings to virtual events.

1.1.1 2020-2025 Strategic Plan

The Strategic Plan, which is posted at:

<u>https://nelac-institute.org/docs/TNI%20Strategic%20Plan%202020_040820.pdf</u>, contained these four primary Strategies, each of which has various Goals and Objectives:

- 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.
- Promote TNI as the premier resource for all activities related to generating environmental measurement data.
- Continue to maintain and improve infrastructure to ensure TNI's future success and financial sustainability.
- Explore new opportunities to provide additional benefits to our stakeholders and support financial sustainability.

1.1.2 Quality Management System

Quality Management System: The quality, administrative and technical systems that govern the operations of a laboratory. It describes the policies, objectives, principles, organizational authority, responsibilities, accountability, and implementation plan of an organization for ensuring quality in its work processes, products (items), and services. The quality management system provides the framework for planning, implementing, and assessing work performed by the organization and for carrying out required QA/QC activities.

1.2 Advocacy Committee

The Advocacy Committee:

- Conducts outreach with other organizations (e.g., ACIL, AWWA, WEF), EPA program offices, state agencies, and others that have an interest in accreditation issues.
- Develops presentations and papers to promote national accreditation and to promote TNI.
- Provides outreach at national, regional and local meetings, and supports TNI's meetings.
- Assists with publication of the member newsletter.
- Supports the newly formed Mentor Subcommittee

2020 Accomplishments

1.2.1 Outreach

The committee monitored California's efforts to revise their Environmental Laboratory Accreditation Program (ELAP) rules. The committee prepared a side by side comparison of TNI's quality management system requirements compared to an alternate "California QMS." The committee provided ELAP a list of resources to assist laboratories in becoming accredited and supported the efforts to create the California Society of Environmental Analysts by allowing their group to meet at TNI's meeting in Newport Beach.

The committee expanded the "TNI Ambassador" efforts by recruiting additional ambassadors. The purpose of this effort is to have one individual in each state that is not a NELAP Accreditation Body (AB) to act as a conduit between TNI and that state. We currently have ambassadors for Arkansas, California, Georgia, Nevada, South Carolina, Washington, and Wisconsin.

1.2.2 Presentations and Papers

Based on the special sessions at the Newport Beach meeting, the Committee developed the white paper "Laboratory Accreditation Makes a Difference: Data You Can Trust." The white paper was posted on the TNI website at: <u>https://nelac-institute.org/news.php?id=4370</u>. This white paper was also turned into a PowerPoint presentation and was given at the National Environmental Monitoring Conference (NEMC) and the fall meeting of the Florida Society of Environmental Analysts. The key finding as stated in this White Paper is:

• There is no doubt that accreditation to the TNI standard makes a difference in the quality of the data and in laboratory performance.

1.2.3 2020 Meetings

1.2.3.1 Forum on Environmental Accreditation – Newport Beach

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.

1.2.3.2 Environmental Measurement Symposium

This meeting ended up as a virtual National Environmental Monitoring Conference with no TNI committee meetings. The technical program occurred over three weeks with only one track at a time. The Conference featured 139 oral presentations and 40 poster presentations, organized into four tracks, plus 4 plenary presentations and 8 lunch presentations. Attendees registered for the tracks they wished to attend or registered for all four tracks at a discounted price. After the conference, attendees were able to view recordings of all presentations for which they registered, as well as all keynote, plenary, and lunch presentations. The Conference also featured:

- 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 presentations, abstracts, and authors can be found on the NEMC website at <u>http://nemc.us</u>.

1.2.4 Newsletter

TNI's newsletter, *The Institute Review*, was published in June and November 2020. Copies of the newsletter can be found at: <u>https://nelac-institute.org/content/newsletter.php</u>

1.2.5 Mentor Subcommittee

The Mentor Subcommittee worked out the details of their proposed mentoring plan. A draft web page including a questionnaire for labs seeking mentors and an expectations document were completed. The Subcommittee discussed the role of a mentor and the difference between mentors and consultants. They also discussed and refined the questionnaire for labs. Members agreed that the focus should be helping labs to implement a quality management system rather than becoming accredited.

- Develop and plan a 2021 virtual Forum on Environmental Accreditation to include time for more TNI special sessions such as a review of the new initiatives from the strategic plan (mentoring, training, consumables standard, competency) and a continuation of the discussion on the value of accreditation.
- Review the TNI 2020-2025 strategic plan to identify high priority items to include in their 2021 workplan. High priority tasks for early 2021 include:
 - Revise and update the "The State of National Accreditation" report and share the report with key decision makers including states and EPA.
 - Revise the "Introduction to TNI" PowerPoint presentation to create a webinar for new members.
 - Look for opportunities to add more TNI Ambassadors to non-NELAP states.
- Oversee implementation of the Mentoring Initiative.

- Monitor activities at EPA and other state and federal agencies to identify opportunities to share TNI's activities and promote national accreditation.
- Continue organizing newsletter publication and provide routine communications to TNI members.
- Look for opportunities to meet with EPA program offices (e.g., Drinking Water, Air, Solid Waste, and Wastewater), other federal agencies, state agencies, trade associations, other data users, and FSMOs to promote TNI and to better understand their needs for reliable environmental data and work to ensure the TNI program meets the needs of all data users.
- Expand outreach to non-NELAP states
 - Develop an Introduction to NELAP webinar.
 - Pursue opportunities to meet with non-NELAP states to discuss use of LAMS, FoPT tables, and evaluating their programs.
 - Educate all states on the benefits of the TNI standard and advocate for additional states to become ABs where appropriate.
- Look for opportunities to advocate key decisionmakers to establish a mandate for national accreditation based on the TNI standard for all media and all laboratories.
- Work with other trade associations to develop National program at the Federal level.
- Effectively use the Small Laboratory Advocate to engage small laboratories and to disseminate information to small laboratories.
- Explore expansion of the NGAB effort.

Future Meetings

- Forum on Environmental Accreditation
 - January 25-29, 2021 (Virtual)
- Environmental Measurement Symposium
 - August 2-12, 2021 (Hybrid: In-person and Virtual)
 - Bellevue, WA

1.3 Information Technology Committee

The Information Technology Committee:

- Provides recommendations as to the design and content of the TNI website.
- Manages the TNI Laboratory Accreditation Management System.
- Maintains TNI databases such as technology codes, method codes and analyte codes.

2020 Accomplishments

- Cleaned up analyte and method codes for Uranium, Oil and Grease, and PFAS.
- Moved website to Microsoft Azure server.
- Developed systems for virtual meetings.
- Published compendium of all Standard Interpretation Requests (SIRs).
- Fully implemented LAMS with all Fields of Accreditation (FOAs) for all laboratories.
- Implemented a Generic Application for laboratories and made this application available to ABs.
- Developed an SOP for method and analyte codes.

Laboratory Accreditation Management System (LAMS) Summary for 2020

Accreditation Bodies	14
Non-Governmental Accreditation Bodies	4
Active Laboratories	1230
Primary Fields of Accreditation	303564
Secondary Fields of Accreditation	404835
Total Fields of Accreditation	708399
Active Methods	4705
Methods in compendium	4020
Methods added in 2020	229*
Active Analytes	3475
Analytes added in 2020	100*
* See Appendix 2 for details.	

2021 Objectives

- Continue to support the website and LAMS
- Improve committee membership application process
- Implement the Mentor program
- Expand LAMS into non-NELAP states

1.4 Policy Committee

The Policy Committee:

- Serves as a resource for the development of policies.
- Reviews policies from all programs for conformity with respect to style and for consistency with one another and with the overall mission of TNI.
- Develops general policies for TNI.

2020 Accomplishments

- Developed and/or approved the following policies or SOPs:
 - SOP 1-100: Format Guidelines for Standard Operating Procedures (SOPs) of the NELAC Institute (TNI)
 - SOP 1-101: Operation of TNI Committees
 - SOP 1-124: Internal Audits
 - SOP 1-125: Committee Application and Membership Tracking Procedures
 - SOP 2-100: Procedures for Governing Standards Development
 - SOP 2-101: Procedures for Expert Committee Operations
 - SOP 4-102: TNI Proficiency Testing Program Complaint, Appeal, and Dispute Resolution Procedure.
 - SOP 4-108: PTPEC Procedure for Addressing Conflicts of Interest
 - SOP 6-100: Conducting Pilot Studies for New Concentration Ranges and Acceptance Limits for Source Sampling Audit Samples
 - SOP 7-100: Evaluation of Non-Governmental Accreditation Bodies (NGAB) for Accrediting Environmental Laboratories under Recognition by The NELAC Institute (TNI)

- Reviewed the following policies or SOPs:
 - SOP 1-109: Establishing, Validating and Maintaining Analyte and Method Codes and Publishing Methods in TNI's Method Repository
 - SOP 3-103: NELAP Accreditation Bodies Standards Review and Acceptance
 - SOP 4-105: PT Program Executive Committee Voting Process
 - SOP 5-103: TNI NEFAP Nominating Committee Procedure
 - SOP 5-104: TNI NEFAP Complaint, Recognition Reconsideration and Dispute Resolution Procedures
- Managed the implementation of the TNI Internal Audit process.
- Reviewed charters for new committees.

2021 Objectives

- Continue to develop and/or approve policies or SOPs.
- Review updated Charters based on strategic plan.

1.5 Training Committee

The newly formed Training Committee develops and maintains a comprehensive training plan for TNI.

2020 Accomplishments

• Formed committee and began work on mission.

2020 Training Courses (Webinars)

- Remote Assessments Series AB Assessments
- Remote Assessments Series Laboratory and Client Audits
- Remote Assessments Series Information Communication Technology
- Good Laboratory Practices Understanding Basic Measurements
- Lowering the Cost of Poor Quality (CoPQ) with an Effective Quality Management System and Integrating Risk Management Principles
- History of Environmental Monitoring
- Implementing the 2016 TNI Standard
- Understanding Radiochemistry Testing and the TNI 2016 Standard: Radon Emanation, Total Uranium, Method Validation and Instrument Calibrations
- Theoretical and Practical Consideration for Establishing Sensitivity of Measurements
- Tools and Resources for Implementing the 2016 TNI Standard (Navigating the TNI Website)

- Develop a comprehensive plan for training.
- Seek out additional trainers for needs identified.
- Explore potentials for developing various training tracks (e.g., quality managers, technical managers, and other similar groups).
- Expand use of technology to administer and automatically grade tests and provide certificates. Consider the possibility of digital badges.
- Increase use of available training materials already developed.
- Develop handout assessors can give laboratories.

2.0 CONSENSUS STANDARDS DEVELOPMENT PROGRAM

2.1 CSDP Executive Committee

2020 Accomplishments

2.1.1 ANSI Audit

In May of 2020 TNI received the official notice of the ANSI Suspension of Accreditation as was expected based upon previous discussions with ANSI personnel following our audit. During the suspension period, TNI may not submit various forms for processing of TNI materials for consideration as American National Standards. After reaccreditation is established and a follow up audit is completed successfully TNI may again request approval of TNI Standards as American National Standards. As a functioning Standards Development Organization (SDO), TNI continues to develop its standards consistent with its SOPs and *ANSI Essential Requirements* for ultimate approval.

The suspension of accreditation will be lifted after ANSI acceptance of the following:

- 1. Submission of revised procedures that address the procedural audit recommendations/findings and documentation that those procedures successfully complete the accreditation process.
- 2. TNI submits a letter of commitment to ensure all audit issues will be properly addressed and stipulating that TNI will provide sufficient resources and properly trained personnel to administer TNI's responsibilities as an ANSI Accredited standards developer.
- 3. Provide a detailed corrective action plan, acceptable to ANSI Executive Standards Council addressing the recommendations/findings of the audit.

The revised procedures are SOP 2-100 Rev. 3.4 (Procedures Governing Standards Development), SOP 2-101 Rev. 3.1 (Procedures for Expert Committee Operations) and SOP 1-125 Rev.0 (Committee Application and Membership Tracking Procedures). These SOPs have been approved by the Consensus Standards Development Executive Committee, the Policy Committee and have been endorsed by the TNI Board of Directors. The commitment letter referenced above has been submitted and the detailed corrective action plan has also been presented to ANSI auditors. ANSI and its Executive Standards Council has responded to our submissions and reaccreditation is anticipated.

2.1.2 SOP Revisions

Revisions of SOP 2-100 and 2-101 also addressed the AC/LASEC "Lessons Learned" document presented to the Board of Directors in order to provide a more coordinated effort in standard development. These lessons were realized during the development of the TNI 2016 Standard.

2.1.3 TNI Glossary

In 2020 the CSDEC also commissioned a TNI Glossary work group to finalize the Glossary presented to TNI in 2019. The primary issue with the original Glossary as presented did not appropriately reflect the fact that whatever definitions were in the TNI 2016 Standard were the only enforceable terms available to the Accreditation Bodies. The Glossary effort was subsequently divided into two (2) parts. The first was the set of definitions contained within the Standard and Modules. Conflicts in definitions within this group of terms would have to be resolved through the standard development process outlined in SOP 2-

100. The Standards Development process is recognized to be lengthy, but a number of Expert Committees are currently working on revisions to their modules and will need to address the issue of harmonization of terms as they proceed. The second part of the Glossary Work Group efforts are being directed at definitions utilized in other TNI documents (Standard Operating Procedures, Policies and other general documentation). While some inconsistencies reside within the terms and definitions of this latter category, the ability to harmonize terms does not require the standards development process and can, with cooperation of other factions within TNI, proceed at an accelerated rate. As the Work Group continues its efforts on both of these fronts, they are also considering ISO terms and definitions and reviewing definitions of terms contained in state accrediting bodies rules and regulations to avoid any inconsistencies wherever possible.

2.1.4 Training

Expert Committee training was developed previously but is in need of updating primarily as a result of a number of revisions to SOP 2-100 (Procedures Governing Standards Development) and SOP 2-101 (Procedures for Expert Committee Operations). Initially this effort was intended to provide a training module for all TNI committees (Expert, Administrative, etc.) but the TNI Program Administrators developing this training soon recognized that differences existed between requirements for Expert Committees and others. The training module for Expert Committees and their Chairs/Vice-Chairs is undergoing final preparation and should be available for webinar-based training of all Expert Committee members in early 2021.

2.1.5 Other Actions

The CSDEC also worked to ensure that all expert committees were appropriately staffed relative to maintenance of balance of membership while encouraging committees to attain maximum membership of 15 voting members.

The CSDEC is tracking Expert Committee responses and Corrective Actions to the Internal Audits and working to modify the Internal Audit process consistent with the requirements of recent revisions to SOP 2-100 (Procedures governing Standards Development) and SOP 2-101 (Procedures for Expert Committee Operations).

2021 Objectives

- Establish TNI's re-accreditation by ANSI.
- Finalize Training materials for Expert Committee members and conduct said training.
- Ensure full compliance with all relevant TNI requirements for Expert Committee operations and standards development.
- Continue to develop the Glossary of TNI terms.

2.2 Asbestos Committee

2020 Accomplishments

The Committee devoted their efforts to completion of a new and completely revised edition of EL V1M3 (Management and Technical Requirements for Laboratories Performing Environmental Analysis; Quality System for Asbestos Testing). The previous Standard (Module 3) for asbestos testing was finalized in 2009 and required technology-based updating and revision. The proposed Draft Standard (DS) was completely re-written to be technology based for improved clarity and ease

of use by laboratories. The proposed Draft Standard (DS) has been presented to the TNI membership and all received comments have been responded to appropriately. The finalized Draft Standard has also been presented to all TNI and Non-TNI members through publication on the website and public solicitation of comments from interested parties. Any additional comments from this extended outreach that are received from TNI and/or non-TNI members will be addressed. Upon resolution of these comments and any necessary revisions to the module, the DS will continue along the path to a Final TNI Module 3 Standard and ultimately an American National Standard through ANSI.

2021 Objectives

- Complete Expert Committee Training and comply with all TNI expert committee requirements.
- Finalize Module 3 and seek American National Status from ANSI.
- Pursue adoption of Module 3 in NELAP.
- Address any Standard Interpretation Requests (SIR) received from users.

2.3 Chemistry Committee

2020 Accomplishments

- The Committee dealt with a number of issues, the most time consuming of which were numerous (approximately 20) Standard Interpretation Requests (SIR). Most of the valid SIRs involved clarifications of specific Module 4 language relative to applicability by the inquiring laboratory. The queries submitted for the Committee consideration spanned the breath of Module 4; from calibration to quantification, to Demonstration of Competence. Many of the SIR responses from the Chemistry Committee required multiple responses to be deemed adequate by the LASEC.
- Another major effort which has not yet been ultimately resolved is the definition of the Technical Manager of a chemistry laboratory accredited under the TNI Standards. The questions of amount and type of education and length and type of experience and /or degree of previous supervision all played into the debate. This issue originated in the Quality Systems Expert Committee but morphed into requiring Inputs from virtually every Expert Committee.
- A critical issue that also required attention was the membership status of the committee. The committee was determined to be non-compliant with balance requirements and action was immediately undertaken to resolve the dominance position of laboratories on the committee. New members were solicited and added to the committee with balance and lack of dominance achieved while expanding the committee to a full 15-member headcount. The 2021 roster for the committee is compliant with all TNI requirements.
- A review of the SIRs referenced above suggests that a major effort in planning for revisions in Module 4 is to address the details of and clarification of requirements for the Initial and On-Going Demonstration of Competence (DOC) for both analysts and the laboratory. As the Committee plans for standards activity in 2021 focused on necessary modifications to the 2016 Standard, the area of compliance with DOC requirements will be particularly important.

2021 Objectives

- Complete Expert Committee Training and comply with all TNI expert committee requirements,
- Continue to contribute to resolution of the Technical Manager issue,
- Respond successfully to all SIR received from the LASEC,
- Complete planning for necessary modifications to Module 4, and
- After approval of a Notice of Intent to Modify Module 4, initiate standards development consistent with SOP 2-100.

2.4 Laboratory Accreditation Body Committee

2020 Accomplishments

- The committee spent nearly all of 2020 reviewing and responding to comments submitted in
 response to publication of an outline of proposed changes and draft revised module 1 of the 2016
 Environmental Laboratory Sector Standard, Volume 2, General Requirements for Accreditation
 Bodies Accrediting Environmental Laboratories. This draft module, published for comment in April,
 2019, combined the previous two modules, General Requirements (V2M1) and On-site Assessment
 (V2M3), by initially moving the TNI language into the 2017 version of ISO/IEC 17011 and then
 reviewing and updating all of the TNI language specific to environmental laboratory accreditation
 bodies. The committee also reviewed and updated the assessor qualifications and initial training
 requirements, and considered for possible inclusion the recommended language provided by the
 NEFAP Field Activities Task Force.
- The results of the committee's efforts were published for comment on December 1, 2020, as the Draft Standard V2M1, General Requirements for Accreditation Bodies Accrediting Environmental Laboratories. While awaiting resolution of the final and most difficult issues, the Chair drafted a new Compliance Checklist that will be reviewed and eventually approved for use in evaluating the conformance of Accreditation Bodies to Volume 2 once the new module is adopted and implemented. The Proficiency Testing Module 2 of this Volume 2 is developed by the Proficiency Testing Expert Committee but the corresponding portion of the Compliance Checklist is reviewed by LAB prior to being presented to the NELAP Accreditation Council along with work products of the LAB Expert Committee for adoption and implementation.
- The committee responded to one Standard Interpretation Request during 2020.

- Finalize V2M1
 - Address all submitted comments on the Draft Standard.
 - Compile response-to-comments file for comments on the Draft Standard and notify all commenters of persuasive/non-persuasive decision about each comment, and how the comment was addressed.
 - Publish Revised Draft Standard if necessary, and repeat review of comments.
- Review and approve final Compliance Checklist (approval to occur after V2M1 is final and ready for adoption, so possibly 2022 instead of 2021)
 - Present approved, color-coded Compliance Checklist to NELAP Accreditation Council for use in its evaluations of Accreditation Bodies.

2.5 Microbiology Committee

2020 Accomplishments

• The TNI Committee began the process for revising Volume 1 Module 5 of the 2016 TNI Standard by preparing a Recommended Changes Summary table and holding a public webinar in December to receive feedback from stakeholders. The Committee responded to 2 Standard Interpretation Requests and submitted Implementation Guidance to the LASEC regarding frequency of method blanks related to samples. In addition, the TNI Committee assisted the Quality Systems Committee with ongoing drafts of the Technical Manager language for future revisions of the Standard.

2021 Objectives

- Continue process for Volume 1 Module 5 revision.
- Respond to Standard Interpretation Requests.
- Prepare Implementation Guidance regarding Incubator Equilibrium checks.

2.6 Proficiency Testing Committee

2020 Accomplishments

- The 2016 TNI standard EL V1M1 contained new language on Proficiency Testing Reporting Limits (PTRL). Some confusion existed in the Standard's user community and the committee published a Guidance Document in October of 2018. The Committee however continued into 2020 to provide continuing explanations as to the use and implications of the Guidance Document on PRTL through presentations at TNI and NEMC meetings. The Committee also worked with other TNI committees including the Accreditation Council to resolve issues on the timely reporting of proficiency test results as a consequence of the Covid-19 pandemic.
- The committee also worked to expand committee membership and to install a new committee chair (Kirstin Daigle) as Nicole Cairns has served her full term on the committee. The committee is appropriately balanced and is currently staffed with 14 full voting members and more than 20 Associate members. The final position on the committee is currently being sought from the accreditation body community.
- The Committee is presently finalizing their work plan for potential changes to their module. They
 have reviewed all recorded SIRs and prioritized the issues to be addressed. A Notice of Intent (NOI)
 to modify their standard is expected in the first quarter of 2021. This effort will include review of TNI
 language in their module relative to ISO/IEC 17011, 17025 and 17034. Further, the committee will
 review the need for any potential changes in EL V2M2 regarding elements of that Standard and any
 applicable proficiency testing requirements.
- The Committee is also continuing involvement with the Proficiency Testing Program Executive Committee (PTPEC) on issues of mutual interest such as PCB evaluations of proficiency testing sample results and scoring of same. They are also working with the PTPEC and the Whole Effluent Toxicity Testing Expert Committee on the issue of proficiency testing analyses in this analytical arena.

2021 Objectives

- Complete Expert Committee Training and comply with all TNI expert committee requirements.
- Work with the PTPEC and potentially other Expert Committees to resolve issues of mutual interest.
- Respond successfully to all SIR received from the LASEC.
- Complete planning for necessary modifications to EL V1M1, and EL V2M2 if necessary.
- Work in the Mentoring process on "Effective Management of a Proficiency Testing Program".
- After approval of a Notice of Intent to Modify EL V1M1, initiate standards development consistent with SOP 2-100.

2.7 Quality Systems Committee

2020 Accomplishments

• The Committee began the process of revising Volume 1 Module 2 of the 2016 TNI Standard by preparing a Recommended Changes Summary table and holding a public webinar late September to receive feedback from stakeholders. There were 201 people in attendance (41 comments were responded to) and 5 extensive emails with many more suggestions were received. The comments and suggestions were reviewed and have been incorporated into the Recommended Changes Summary table that will be used to start the rewrite of Volume 1 Module 2. The Committee continued work on Technical Manager requirements and has now turned this over to other expert committees to complete. The Committee responded to 3 Standard Interpretation Requests in 2020 and worked with DoD to understand if there is a need to expedite efforts to revise the 2016 Standard to incorporate ISO/IEC 17025:2017.

2021 Objectives

- Begin revising language in Volume 1 Module 2 of the TNI Environmental Laboratory.
- Determine a goal for completing a Volume 1 Module 2 Voting Standard.
- Continue working through controversial topics:
 - Internal Audit time frame
 - Technical Manager (coordinate with other committees)
 - Document/record retention
 - Quality Control requirements in ISO 17025:2017 and determine when it is appropriate, adding language, if needed
 - Addressing requirements dropped in ISO/IEC 17025:2017
 - Need for a Quality Manual and SOPs (and what they must include)
 - Quality policy (and general usage of the term policy in the standard)
 - As additional controversial topics arise, expand this list and pursue TNI stakeholder input.

2.8 Radiochemistry Committee

2020 Accomplishments

• The Committee presented the final of 5 technical training sessions for assessors, ABs, and laboratory personnel at the Winter 2020 TNI Conference. This training was well received over the 5 meetings at which it was presented, and other Committees have discussed the potential of providing similar training. In addition, the Committee provided leadership by proposing Technical Manager language for future revisions of the TNI Standard which became a model used by several other

committees. While not actually needed, the REC was ready and available to respond to Standard Interpretation Requests. Finally, not only did the Committee begin the process of revising Volume 1 Module 6, but it also presented proposed areas of improvement at a public meeting (Webinar) in which several additional concepts were offered by attendees, followed the rest of the year by the process of discussing and finalizing wording for the new document.

2021 Objectives

- Continue to provide technical assistance.
- Respond to Standard Interpretation Requests as needed.
- Prepare Voting Standard for Volume 1 Module 6.

2.9 Stationary Source Audit Sample Committee

2020 Accomplishments

- In 2020, the Stationary Source Audit Sample Expert Committee (SSAS) met at twice its usual frequency in order to more quickly complete key documents to make changes that might encourage the involvement of a second audit sample provider. The Committee wrote two SOP's: SOP 6-100 ("Conducting Pilot Studies for New Concentration Ranges and Acceptance Limits for Stationary Source Audit Samples") that was finalized by TNI in November 2020 and SOP 6-101 ("SSAS Table Management") that is now ready for final Committee vote and will be sent to the Policy Committee in January 2021.
- The efforts to increase membership on the Committee were successful, with three new members joining the Committee, increasing membership from 7 to 10 members.
- Based on feedback received in 2019 from the survey sent to stakeholders, public outreach to the stakeholders was deemed a high priority. Outreach this year included the Committee chair's involvement with the Source Evaluation Society (SES) where she joined the SES Newsletter's Editorial Board, submits quarterly articles about SSAS's activities and the status of EPA's Stationary Source Audit Program, and completed a poster for presentation at the SES's Annual Conference that unfortunately could not be presented since both their 2020 and 2021 conferences had to be canceled. The Chair also gave a presentation at 2020 NEMC related to the organization of SSAS and the responsibilities of SSAS and EPA.

- Finalize SOP 6-101 (SSAS Table Management).
- Conduct a public webinar for proposed changes to SSAS Volume 1, Modules 1, 2, and 3.
- Present SSAS Volume 1, Modules 1, 2, and 3 for vote.
- Review and update SSAS Charter.
- Review SSAS Table.
- Continue with efforts to expand Committee membership.

2.10 Whole Effluent Toxicity (WET) Committee

2020 Accomplishments

- Throughout the year, the Committee continued its ongoing negotiation of an acceptable concept for analyst demonstrations of competency (DOC). In the current V1M7, the absence of clear requirements for individual analyst DOC has allowed each Accreditation Body (AB) to set its own rules, which vary widely, so that setting a clear minimum set of requirements is a priority for the committee's revision of the Quality Systems for Toxicity Testing Module 7 of the laboratory Volume 1 of the TNI Environmental Laboratory Sector Standard. The DOC for the laboratory is considered to be adequately delineated in the WET method manuals and is not part of this revision. WET leadership met with the NELAP Accreditation Council in January, 2020, in hopes of learning what might be acceptable and was asked to provide written documentation of a concept for its review. As of December, 2020, an agreement was reached within this committee for presentation to the NELAP Accreditation Council to ensure that all ABs will find it acceptable before it becomes incorporated into the Draft Standard V1M7.
- Concurrently, committee volunteers reviewed and revised sections of the existing V1M7, providing draft language to be reviewed by the full committee. As time permitted, around the DOC negotiations, these sections are being reviewed and edited. Additionally, plans for a training course in data interpretation were initiated and course development is underway with a mid-2021 planned offering as a webinar. Several committee members reviewed training materials from the WET Assessor Training, offered in late 2019, and provided recommendations for clarifying the materials and making them consistent with accepted practices in the field of aquatic toxicity.
- Several small groups of members have worked on aspects of improving the utility of WET proficiency testing (PT), including the DMR-QA (<u>Discharge Monitoring Report-Quality Assurance</u>) required testing in states where that is mandated. Because of the small number of WET labs and the fact that many labs perform the PT sample analyses in the same way that the client's permit mandates, and those conditions vary widely across different states, PT results for any given sample are lumped together by PT providers for analysis, but those samples may have been analyzed under widely differing conditions. Draft requirements for consistent performance of PT samples (requiring the same numbers of organisms, temperatures, water type, endpoints) were shared with both the PT Program Executive Committee and the PT Expert Committee in hopes of reaching some broad agreement among labs, ABs and PT providers that promotes comparability of PT test results which is now lacking.

- Obtain broad agreement on analyst DOC concept prior to publishing Draft Standard V1M7.
 - Present analyst DOC concept to NELAP AC.
 - Discuss and address questions, negotiate revisions as required prior to including concept in revised V1M7.
- Review and refine updated language for each section of revised V1M7.
 - Prepare coherent module for committee approval and publication as Draft Standard (for comment).
- Present and record training webinar about WET Data Interpretation.
 - Small group prepare draft training materials.

- Full committee review and approve training materials.
- Present the course; determine whether initial presentation is acceptable for webinar or if separate recording is needed.
- Establish data comparability for WET PT data.
 - Work with PTPEC/PTEC to identify appropriate way to transmit instructions to labs for how to perform study sample analyses.
 - Create documentation appropriate for agreed-upon transmission method.
 - Implement chosen technique and observe whether expected improvement in data comparability actually occurs.
 - Refine instructions as warranted.

3.0 NEFAP REPORT

3.1 NEFAP Executive Committee

2020 Accomplishments

- 2020 was spent continuing a critical evaluation of the program to determine the best path forward for the program in support of the TNI organizational strategic plan. The NEFAP EC developed two working groups to support these efforts; the first group focused on evaluating the market for training opportunities and determining if there is potential for NEFAP to enter and engage that market to grow the program and further our mission. The second workgroup focused on developing marketing strategies and a detailed plan for implementation to aggressively market the program to all potential stakeholders. The workgroups combined their efforts into a single synergistic plan to be implemented in 2021 to continue to grow the program.
- Along with the strategic plan the committee also developed performance metrics to quantify the tangible growth of the program so we can measure our successes and identify where we are in comparison with our strategic plan's timeline.
- The committee continued work on updating and revising standard operating procedures (SOP's 5-103 – TNI NEFAP Nominating Committee Procedure and 5-104 – TNI NEFAP Complaint, Recognition Reconsideration and Dispute Resolution Procedures) and started the development a new policy (Relationship of NGAB Certificates of Recognition and the NGAB Evaluation Process) to decouple certificates and evaluations. In addition, the Committee began an initial review of the FSMO Standard Vol. 1 to provide comments and suggestions to the Field Activities Expert Committee (FAC) as they embark on the Standard revision process.

- Support FAC Standard revision process by providing comments and suggested changes.
- Begin AB re-evaluation process.
- Develop training courses and implement strategic plan as it relates to training.
- Aggressively market the Program utilizing the strategies outlined in the strategic plan.
- Generate more awareness of the program and drive growth and interest in participation.
- Review and revise SOPs to reflect current program.
- Complete development of TNI Policy to de-couple certificates from evaluations.
- Work with FAC to evaluate need for Scope Guidance document.
- Provide the Board performance metrics quarterly.

3.2 Field Activities Expert Committee (FAC)

2020 Accomplishments

• The Committee accomplishments include combining the Volume 1 of the Field Standard (FSMOs) and the new ISO/IEC 17025:2017. The Committee also worked on identifying new material to add and change in the Standard and scheduled the first public webinar to solicit stakeholder feedback on the proposed changes. The Committee also investigated different applications to better collaborate while working on the Standard but decided to continue working with Dropbox and Word due to its common use.

2021 Objectives

- Conduct public webinars to get feedback on proposed changes to the TNI Field Standards Volume 1 (FSMO) and Volume 2 (AB).
- Prepare Voting Standard for Volume 1.
- Prepare Voting Standard for Volume 2.
- Evaluate need for Scope Guidance document to assist ABs with implementation.

4.0 NELAP REPORT

4.1 Accreditation Council

2020 Accomplishments

- In 2019, the Council established January 31, 2020, as the formal implementation date for the 2016 TNI Environmental Laboratory Sector Standard. As of that date, all six state Accreditation Bodies (ABs) that adopt "by reference" implemented the new standard (plus one that implemented it in April 2019), and others began planning for necessary rulemaking to implement the updated standard. Rulemakings were delayed due to the pandemic emergency, but all NELAP ABs recognize accreditation by any other NELAP AB, regardless of which standard is officially in place, and all NELAP ABs are encouraging their labs to proceed with upgrading to the 2016 standard even if it is not mandatory.
- State NELAP ABs found ways to continue operations as they complied with their state's restrictions imposed due to the pandemic emergency. While some delays in site visits inevitably occurred, none were catastrophic and by the end of the year, operations were stable, whether staff worked in their offices or from home. Many but not all states implemented remote site visits to complete their lab assessments; others resumed in-person visits as state travel restrictions permitted. All ABs agreed that initial assessments must be conducted with an in-person site visit. Concurrently, the three-year cycle of AB evaluations adapted to using remote site visits as well.
- The Council accomplished a smooth transition in leadership early in the year, and the new leaders guided the Council in accommodating accredited labs seeking a new primary Accreditation Body upon the withdrawal of Louisiana Department of Health's unexpected withdrawal of its drinking water accreditation program from NELAP. Reporting changes were instituted in hopes that advance notice will be given if such an unwanted event ever recurs.

• The Council continued its routine functions of running the National Environmental Laboratory Accreditation Program, such as reviewing and approving Standard Interpretation Requests (SIRs) that become part of the standard once final and approving revisions to Field of Proficiency Testing tables as provided by the PTPEC.

2021 Objectives

- Sustain governance role for the program and promoting consistency in AB operations
 - Remain flexible to accommodate changing state restrictions due to ongoing pandemic emergency, making efforts to minimize hardship on accredited and applicant laboratories
 - Continue the evaluation cycle as planned
 - Continue SIR and FoPT reviews and approvals
- Review and comment on V2M1 Draft Standard
 - Comments will be offered individually and also from the Council itself, as appropriate
 - Once the Draft Standard is finalized (possibly late 2021), review it for approval to adopt and establish an implementation date. As this module is AB operations, no regulations are required, so that implementation will be a one-time transition (not "rolling")
- Review and comment on other revised modules of the TNI ELS Standard as the expert committees publish Draft Standards
 - Comments will be offered individually and also from the Council itself, as appropriate

State	Process for Implementing the New Standard	Anticipated Implementation Date
FL	FL adopted the TNI 2016 Standards by regulation on September	April 1, 2019
	2019, to implement the new standards	
IL	Full implementation on January 31, 2020	January 31, 2020
KS	Rulemaking underway, but slowly. Is allowing labs to upgrade now and is assessing to 2016 Standard even though 2003 NELAC standard is still the official version	Unknown
LA	Regulation updates delayed by pandemic, tropical storms and hurricanes	Unknown
MN	Adopts by statute, and is updating its databases now. Is encouraging labs to implement 2016 standard now, with database updates ready and checklist going into electronic data system presently.	January 2021
NH	Is encouraging labs to upgrade now, working with counsel about how and when they can proceed with rulemaking	Unknown
NJ	Incorporated into regulation by reference	January 31, 2020
NY	Adopts by reference; unable to obtain permission to complete rulemaking to update other aspects on separate timeline. Implemented PT modules of 2016 Standard immediately but not able to use the updated/2016 checklist yet. Encouraging labs to upgrade now. Other modules await completion of rulemaking to revise NYS certification manual.	Unknown
ОК	Discussions about rulemaking and implementation have resumed, is allowing labs to upgrade now	Unknown
OR	Implemented 2016 Standard effective January 1, 2021	January 1, 2021

Implementation Plans for 2016 TNI ELS Standard

PA	Incorporated into regulation by reference, all labs are required to have the 2016 standard implemented by July 2020.	January 31, 2020
ТХ	Incorporated into regulation by reference. Implementation has gone well.	January 31, 2020
UT	Rulemaking on hold due to emergency but recently re-started. May be open for comment in February 2021; allowing labs to upgrade to 2016 now	Several more months needed, but during 2021
VA	Regulatory update stalled, awaiting first publication.	Unknown

4.2 Laboratory Accreditation Systems Executive Committee (LASEC)

2020 Accomplishments

- After creating the Lessons Learned document from the review and eventual adoption of the 2016 TNI Environmental Laboratory Sector Standard, the Chair and Program Administrator worked with the Consensus Standards Development (CSD) Executive Committee on revising the standards development process to better accommodate the needs of the NELAP AC and LASEC for reviewing and commenting on draft standard modules. As a result of this collaboration, significant revisions were identified and made to both the LASEC Standards Review process and the Standards Interpretation Request (SIR) management process.
- LASEC continued its traditional training with the Mentor Session and Assessment Forum at the winter conference and plans to offer both for the next winter conference as well. Sadly, due to the pandemic emergency, the summer conference transitioned to virtual and there was no time slot available for these trainings.

- Sustain review and comment activities for Draft Standard modules as they are developed.
 - Review Draft Standard modules as they become available.
 - Ensure that all relevant SIRs were addressed for each revised module.
 - Once modules are final, review and provide recommendation about adoption to NELAP AC.
- Continue management of SIR submissions.
 - Review incoming SIR submissions for validity.
 - Review expert committee responses to SIRs.
 - Monitor timeframes for various activities of SIR processing to find opportunities for faster completion.
 - Share not-valid SIRs with Expert Committee Chairs on a quarterly basis.
- Provide Mentor Session and Assessment Forum trainings at TNI conferences.
 - LASEC committee volunteers coordinate development of these trainings.
 - Explore recording these trainings for future offering as webcasts.
 - Assist NELAP AC in developing documents, policies and procedures.
 - Develop SOP for review of FoPT Tables.
 - Respond to other requests.

4.3 Non-Governmental Accreditation Body

2020 Accomplishments

- International Accreditation Service was recognized as the third NGAB to be able to accredit laboratories to the TNI standard.
- The NGAB evaluation SOP was updated to allow remote evaluations of NGABs.

2021 Goals

- Start reevaluation of NGABs.
- Clarify NGAB participation in LAMS.

5.0 PROFICIENCY TESTING PROGRAM REPORT

2020 Accomplishments

- The Committee accomplishments were centered around updates to the Field of Proficiency Testing (FoPT) tables from additional analyte requests and footnote additions and issues that were brought before the committee. The committee also was able to update and participate in updating SOPs for both the committee and TNI. The accomplishments this year for the committee are as follows:
 - Updated the Non-potable Water (NPW) and Solids Chemical and Materials (SCM) FoPT tables to the Analyte Request Application (ARA) received from PA DEP in response to DoD ELAP memo regarding isomer group reporting for PT samples. The individual xylene isomers were added in addition to the "total" Xylenes to the NPW and SCM tables.
 - The NJ PCB ARA footnote request was completed and added to the NPW and SCM tables to allow the ABs to evaluate Aroclors/PCB as "Not Acceptable" for the group if one of the Aroclors is evaluated as "Not Acceptable".
 - The Drinking Water (DW) and NPW FoPT Tables were updated to expand the analytes list for microbial analytes to include Multiple Tube Fermentation as a separate set of analytes for Coliforms.
 - A footnote changing the design criteria for Pesticides was added after receiving a concern that degradation products are being detected in the analysis of PT samples to include all potential degradation analytes in the PT sample if any of the parent analytes were added to the PT sample.
 - The following SOPs were reviewed, revised and updated: SOP 4-105 PTPEC Voting Procedure, SOP 4-107 FoPT Table Management and SOP 4-108 Conflicts of Interest.

- Address WET committee requests to standardize WET PT Program.
- Start process for 2021 Proficiency Testing Provider Accreditor (PTPA) Evaluations.
- Complete revision to SOP 4-101 PT FoPT Acceptance Criteria.
- Develop mechanism to improve involvement of Non-TNI AB stakeholder group.
- Perform feasibility studies to explore adding the following to the TNI PT Program.
 - Perfluoroalkyl substances in drinking water
 - Radiochemistry Uncertainty to PT evaluations
 - Technology based PTs
 - Adding preparation methods to the FoPT tables.
 - Development of PT Program metrics

- Air and Emissions FoPT tables
- Finish updates to the DW Radiochemistry FoPT table after SOP 4-101 is complete.

6.0 TASK FORCES AND OTHER ACTIVITIES

6.1 Competency Task Force

- This group was constituted by the TNI Board to address the goal of exploring the feasibility of developing programs to document individual competency (knowledge) in the most recent Strategic Plan. The group was tasked with the objective to explore and make recommendations regarding programs to document competencies for Quality Managers, Technical Managers, Assessors, Samplers and others as appropriate, and to explore whether TNI might feasibly establish a credentialing program for such competencies. At the initial meeting in April, the Task Force determined to first address the knowledge, skills and abilities (KSAs) needed by assessors for NELAP Accreditation Bodies (ABs), and after that, to tackle Quality Manager and Technical Manager roles in a similar fashion.
- For identifying the KSAs needed by assessors, the group began with the International Assessment Forum's document, Generic Competence for AB Assessors: Application to ISO/IEC 17011 and also looked at the assessor training requirements in the revision of Volume 2 Module 1 of the TNI Standard plus detailed information about assessor training from the 2003 NELAC Standard. Task Force participants refined and updated the information from those sources to create a comprehensive document that specifies the conceptual content of training needed to ensure qualified assessors.

- Present final work product for assessors to TNI Board.
 - Consult with TNI Training Committee to ensure comprehensive coverage of needed training
 - Approve final assessor KSA document.
- Make recommendation to TNI Board about feasibility of undertaking a credentialing and/or digital badging effort.
 - Explore possible ways to credential assessors and defined positions in a laboratory.
 - Gather information on potential value of such credentialing for the environmental laboratory industry.
 - If financially viable, outline elements of new core program.
- Initiate development of KSA documents for additional key positions in the environmental laboratory industry.
 - Prioritize possibilities, starting with Quality Manager and Technical Manager.
 - Determine if additional key positions are candidates for similar definition of competencies

6.2 Consumables Task Force

2020 Accomplishments

• The Task Force met on June 9, 2020 and approved their Charter and then began to discuss the definition of "Critical Consumables, Supplies and Services". The following definition was adopted:

A supply, product, or service that directly affects the result, therefore requiring traceability and verification to ensure data that is method compliant, legally defensible, and of known documented quality.

- Discussion continued relative to product vs. supplies; it was decided that it would be necessary to utilize a separate approach between product/supplies and services. The issue of "for use" was also presented as consumables used for different purposes and/or in different methods will have differing requirements, some critical and others not.
- Committee considered organization and structure of an ultimate standard and concluded that the initial task was to identify, separate, categorize and classify consumables prior to determining structure for the Task Force's efforts.
- The first step was to ascertain general categories of products and supplies beginning with those in common use throughout laboratories (services to be addressed separately and at a later date).
- After the Task Force (TF) approved a minor change in the definition of "Critical Consumable" to ensure the inclusion of "Services", the TF discussed the characterization of and list of common consumables across all laboratories. The TF began their efforts by defining various groups of consumables; each group, with a volunteer leader, would gather as much information. A spreadsheet was developed to collect the information and the TF will collate the information particularly considering the "intended use" scenario of many of these consumables and continue their characterization efforts (i.e., the criticality of the consumable for a given use).
- This information collection effort is utilizing a previously approved spreadsheet for this purpose. Inputs from all members are being received and collated by the Chair. The approach currently being pursued is to segment these efforts into smaller individual tasks, the first of which is general supplies and products needed in laboratories of all types.

- Continue to identify and classify critical products, supplies and services.
- Identify known standards and criteria.
- Identify the type of document that best represents the performance verification of the product, supply, or service. Critical components will be established for the documentation. This will also be the minimum criteria for documentation.
- As the process continues, the question of how to utilize the product of this effort will be addressed.
- Potential outcomes are as follows:
 - Formation of an Expert Committee,
 - Guidance documents available to TNI laboratories or a combination of these.

6.3 Membership Report

Active Members, January 1, 20201068Active Members, December 30, 20201055Number of Committee Applications27

6.4 Statement of Activities





TNI Committee Rosters – 2020

TNI Board of Directors

Jordan	Adelson	US Navy NAVSEA Programs Field Office
Aaren	Alger	Alger Consulting & Technology
Steve	Arms	Florida DOH (retired)
Kristin	Brown	Utah DOH
Justin	Brown	Environmental Monitoring and Technologies
David	Caldwell	Oklahoma DEQ
Stacie	Crandall	Hampton Roads Sanitation District
Bob	Di Rienzo	ALS Environmental
Jack	Farrell	Analytical Excellence, Inc.
Maria	Friedman	State Water Resources Control Board
Myron	Gunsalus	Kansas DHE
Paul	Junio	Northern Lake Service, Inc.
Sharon	Mertens	Milwaukee Metropolitan Sewerage District
Judy	Morgan	Pace Analytical
Patsy	Root	IDEXX Laboratories
Debbie	Rosano	Dept of Energy
Scott	Siders	Retired
Nick	Slawson	A2LA
Alfredo	Sotomayor	Milwaukee Metropolitan Sewerage District
David	Speis	Retired
Lem	Walker	USEPA OW OST
Curtis	Wood	ERA, A Waters Company

Advocacy Committee

Steve Arms, Chair Carol Batterton, Program Administrator

Steve	Arms	Florida DOH (retired)
Lynn	Bradley	The NELAC Institute
Teresa	Coins	Arkansas Analytical, Inc.
Robin	Cook	City of Daytona Beach EML
Stacie	Crandall	Hampton Roads Sanitation District
Zonetta	English	Louisville Jefferson Co., MSD
Martina	McGarvey	Pennsylvania DEP
Sharon	Mertens	Milwaukee Metropolitan Sewerage District
Marlene	Moore	Advanced Systems, Inc.
Trinity	O'Neal	City of Austin Water Utility
Lara	Phelps	USEPA /CEMM
Janice	Willey	NAVSEA LQAO
Josh	Wyeth	Phenova

Asbestos Committee

Myron Getman, Chair Bob Wyeth, Program Administrator

Michael	Carpinona	NJDEP
Zonetta	English	Louisville Jefferson Co., MSD
Myron	Getman	NY State DOH
Glen	Green	Xcel Energy
Dixie	Marlin	Marlin Quality Management, LLC
Michelle	McGowan	EMSL Analytical Inc.
Dan	Shelby	EMLab P&K

Chemistry Committee

Valerie Slaven, Chair Bob Wyeth, Program Administrator

Armstrong	Virginia Dept. of General Services
Blaze	New Jersey DEP
Boren	State of Vermont
Daigle	AAA Laboratories
Davis	Horizon Information Systems
Francis	Saw Environmental
Gaynor	Independent Consultant
Kassner	Pace Analytical Services, LLC
Neslund	Eurofins Lancaster Environmental
Patterson	Utah Dept. of Health
Slaven	PDC Laboratories
Stoike	ALS Environmental
Wade	A2LA Workplace Training
Wolf	Independent Consultant
Wright	Florida DEP
	Armstrong Blaze Boren Daigle Davis Francis Gaynor Kassner Neslund Patterson Slaven Stoike Wade Wolf Wright

Competency Task Group

Jerry Parr, Acting Chair Lynn Bradley, Program Administrator

Alger	Alger Consulting & Technology
Banfer	EISC
Brown	City of Escondido
Caprio	Geosyntec
Carvajal	San Antonio River Authority
Di Rienzo	ALS Global
Drielak	Drielak & Associates
Dutko	Fairway Laboratories
Fry	Babcock Laboratories
Kong	Chevron
Kostzer	The Coca-Cola Company
Labie	ELCAT
	Alger Banfer Brown Caprio Carvajal Di Rienzo Drielak Dutko Fry Kong Kostzer Labie

Harold	Longbaugh	City of Houston
Emily	Mellot	Pennsylvania DEP
Mitzi	Miller	NV5
Jerry	Parr	The NELAC Institute
Sharon	Robinson	New Jersey DOH
Joann	Slavin	New York State DOH
Alfredo	Sotomayor	Milwaukee Metropolitan Sewerage District
Elizabeth	Turner	Pace Analytical Services, LLC.
Curtis	Wood	ERA, A Waters Company

Consumables Task Group

Judy Morgan, Chair Bob Wyeth, Program Administrator

Robert	Benz	Horizon LIMS
Mike	Booth	Inorganic Ventures
Kathryn	Chang	Eurofins CalScience
Eric	Davis	Horizon LIMS
Jack	Farrell	Analytical Excellence, Inc.
Andy	Hata	JMR Environmental Services
Shawn	Kassner	Pace Analytical Services
Kimberly	Kostzer	The Coca-Cola Company
Debbie	Lacroix	METCO Environmental
William	Lipps	Shimadzu Scientific Instruments, Inc.
Tami	Minigh	City of Daytona Beach
Judy	Morgan	Pace Analytical Services, LLC.
Amy	Pollard	
Sarah	Purtell	Suburban Laboratories
Patsy	Root	IDEXX Laboratories, Inc.
David	Smith	Environmental Express
Lauren	Stainback	NSI Lab Solutions

Consensus Standards Development Executive Committee

Paul Junio, Chair Bob Wyeth, Program Administrator

Robin	Cook	City of Daytona Beach EML
Kirstin	Daigle	Pace Analytical Services, LLC
Scott	Haas	Environmental Testing, Inc.
Sheri	Heldstab	Chester Labnet
Kevin	Holbrooks	JEA
Jessica	Jensen	KC Water
Paul	Junio	Northern Lake Service, Inc.
Carl	Kircher	Florida DOH
Michelle	McGowan	EMSL Analytical Inc.
Rami	Naddy	TRE Env. Strat. LLC
Kasey	Raley	Pace Analytical Services, LLC
Terry	Romanko	Eurofins TestAmerica

ValerieSlavenPDC LaboratoriesCathyWestermanVirginia DCLS

Field Activities Committee

Scott Haas, Chair Ilona Taunton, Program Administrator

Doug	Berg	Perry Johnson Laboratory Accreditation, Inc.
Jack	Denby	HRSD
David	Fricker	A2LA
Scott	Haas	Environmental Testing, Inc.
Keith	Klemm	ANAB
Marlene	Moore	Advanced Systems, Inc.
Bill	Ray	William Ray Consulting LLC
Russell	Schindler	SampleServe
Tyler	Sullens	Alabama Power Company
Elizabeth	West	Louisiana DEQ

Finance Committee

Curtis Wood, Chair

Sharon	Mertens	Milwaukee Metropolitan Sewerage District
Jerry	Parr	The NELAC Institute
Alfredo	Sotomayor	Milwaukee Metropolitan Sewerage District
David	Speis	Retired
Curtis	Wood	ERA, A Waters Company

Information Technology Committee

Mei Beth Shepherd, Chair Janice Wlodarski, Program Administrator

William	Daystrom	The NELAC Institute
Nick	Evans	JEA
Maria	Friedman	California State Water Resources Control Board
Paul	Harrison	Kansas Department of Health and Environment
Dan	Hickman	The NELAC Institute
Jerry	Parr	The NELAC Institute
Mei Beth	Shepherd	Shepherd Technical Services
Rip	Starr	Alabama Dept of Environmental Mgmt
Keith	Ward	Phenova

Laboratory Accreditation Body Committee

Carl Kircher, Chair

Lynn Bradley, Program Administrator

Aaren	Alger	Alger Consulting & Technology
Socorro	Baldonado	Metropolitan Water District of Southern California
Bill	Batschelet	US EPA (retired)

Nilda	Cox	Eurofins Eaton analytical
Catherine	Katsikis	LDCFL, Inc.
Carl	Kircher	Florida DOH
Marlene	Moore	Advanced Systems, Inc.
Michael	Perry	Southern Nevada Water Authority
Zaneta	Popovska	ANAB
Alia	Rauf	Utah DOH
Mei Beth	Shepherd	Shepherd Technical Services
Nicholas	Slawson	A2LA

Laboratory Accreditation Systems Executive Committee

Maria Friedman, Chair Lynn Bradley, Program Administrator

Aaren	Alger	Alger Consulting & Technology
Sumy	Cherukara	US EPA Region 2
Stacie	Crandall	Hampton Roads Sanitation District
Jack	Farrell	Analytical Excellence
Maria	Friedman	California State Water Resources Control Board
Bill	Hall	New Hampshire ELAP
Silky	Labie	Environmental Laboratory Consulting and Technologies, LLC
Harold	Longbaugh	Wastewater Operations Laboratory, City of Houston
Dorothy	Love	Eurofins Lancaster Labs
Louise	McGinley	Texas Comm. on Env. Quality
Michele	Potter	New Jersey DEP
Scott	Siders	Retired
Nick	Straccione	EMSL Analytical

Mentor Subcommittee

Jacob Oaxaca, Chair Carol Batterton, Program Administrator

Hunter	Adams	City of Wichita Falls, TX
Steve	Arms	Florida DOH (Retired)
Susie	Arredondo	San Elijo Joint Powers Authority
Debbie	Bond	Alabama Power General Test Lab
Michael	Casalena	Virginia Consolidated Laboratory Services
Robin	Cook	City of Daytona Beach
Mary	Johnson	Rock River Reclamation Water Dist.
Kim	Kostzer	The Coca-Cola Company
Debbie	Lacroix	METCO Environmental
Harold	Longbaugh	City of Houston
Michael	Michaud	City of Abilene
Marlene	Moore	Advanced Systems
Jacob	Oaxaca	California State Water Resources Control Board
Linda	O'Donnell	Philadelphia Water Department
Trinity	O'Neal	Austin Water
Jerry	Parr	The NELAC Institute

Augustin	Pierri	Weck Laboratories
Jerri	Rossi	ddms
Shannon	Swantek	Enlightened Quality
Elizabeth	Turner	Pace Analytical Services, LLC
Janielle	Ward	Pace Analytical Services, LLC
Michael	Watts	Garver
Teresa	Williams	USGS

Microbiology Committee

Kasey Raley, Chair Ilona Taunton, Program Administrator

Hunter	Adams	City of Wichita Falls
Michael	Blades	ERA (A Waters Company)
Michael	Carpinona	New Jersey DEP
Vanessa Soto	Contreras	Florida DOH
Cody	Danielson	Oklahoma DEQ
Jody	Frymire	IDEXX Laboratories
Lily	Giles	Louisiana DEQ
Jessica	Hoch	Texas Comm. on Env. Quality
Christabel	Monteiro	ESC Lab Sciences
Enoma	Omoregie	NYCDEP, Water Distribution Laboratory
Kasey	Raley	Pace Analytical Services, LLC.
Mary	Robinson	Indiana State Department of Health
Patrick	Roundhill	New Leaf Management, LLC
Elisa	Snyder	City of Austin - Austin Water

NEFAP Executive Committee

Justin Brown, Chair Ilona Taunton, Program Administrator

Paul	Bergeron	Louisiana DEQ
Justin	Brown	Environmental Monitoring and Technologies
Jeff	Buystedt	City of Bend Environmental Compliance
Kirstin	Daigle	Pace Analytical Services
Jeremy	Driver	Alabama Power Company
Halley	Dunn Hastings	ARS ALEUT Remediation
David	Fricker	A2LA
Jacob	Gruzalski	Environmental Standards, Inc.
Pamela	Hamlett	US Air Force
Keith	Klemm	ANAB
Suzie	Nawikas	H&P Mobile Geochemistry, Inc.
Ryan	Pangelinan	Oregon DEQ
Norman	Rodriguez-Iglesias	EPA Region III
Russell	Schindler	SampleServe
Stephanie	Sparkman	CS Laboratories, Inc.
Tracy	Szerszen	Perry Johnson Laboratory Accreditation, Inc.
Elizabeth	Turner	Pace Analytical Services

NELAP Accreditation Council

Kristin Brown, Chair Lynn Bradley, Program Administrator

Travis	Bartholomew	Oregon State Public Health Laboratory
Annmarie	Beach	Pennsylvania DEP
Lynn	Boysen	Minnesota DOH
Kristin	Brown	Utah DOH
David	Caldwell	Oklahoma DEQ
Celeste	Crowley	Illinois EPA
Jennifer	Evans	Kansas DHE
Bill	Hall	New Hampshire ELAP
Kimberly	Hamilton-Wims	Louisiana DEQ
Carl	Kircher	Florida DOH
Ken	Lancaster	Texas Comm. on Env. Quality
Michele	Potter	New Jersey Dept of Environ Protect.
Victoria	Pretti	New York State Department of Health
Cathy	Westerman	Virginia Division of Consolidated Laboratory Services

Nominating Committee

Sharon Mertens, Chair

Catherine	Katsikis	LDCFL, Inc.
Sharon	Mertens	Milwaukee Metropolitan Sewerage District
Aurora	Shields	KC Water

Policy Committee

Patsy Root, Chair Ilona Taunton, Program Administrator

JoAnn	Boyd	Southwest Research Institute
Virginia	Hunsberger	Pennsylvania DEP
Paul	Junio	Northern Lake Service, Inc.
Silky	Labie	Env. Lab. Consulting & Technology, LLC
Jerry	Parr	The NELAC Institute
Patsy	Root	IDEXX Laboratories
Mei Beth	Shepherd	Shepherd Technical Services
Eric	Smith	ALS Laboratory Group
Elizabeth	Turner	Pace Laboratories

PT Expert Committee

Kirstin Daigle, Chair Bob Wyeth, Program Administrator

Rachel	Bailey	Advanced Analytical Solutions
Nicole	Cairns	New York State DOH
Thekkekalathil	Chandraasekhar	Florida Department of Env. Protection

Kirstin	Daigle	Pace Analytical
Rachel	Ellis	New Jersey DEP
Patrick	Garrity	Kentucky Department for Environmental Protection
Craig	Huff	ERA (A Waters Company)
Susan	Jackson	South Carolina DHEC
Sennett	Kim	A2LA
Tim	Miller	Phenova
Reggie	Morgan	Hampton Roads Sanitation District
Amy	Pollard	

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Jenna	Majchrzak	New Jersey DEP
Shari	Pfalmer	Pace Analytical National
Bill	Ray	William Ray Consulting LLC
Amber	Ross	Pennsylvania DEP
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Naddy	TRE Env. Strat. LLC
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Pasch	Alan Plummer Associates, Inc.
Pfeil	Texas Comm. Environ. Quality
Potter	New Jersey DEP
Rewa	Environmental Resources Management
West	Louisiana DEQ
	Briggs Burbage De Lisle Fleming Hackman Hughes Naddy Norberg-King O'Neil Overbey Pasch Pfeil Potter Rewa West

Appendix 2: New Method and Analyte Codes Added in 2020

New Method Codes Added in 2020

Method Reference	Method Title
Absolute SOP QA-5317	Absolute-Per- and Polyfluorinated Alkyl Substances in Water by
	(LC/MS/MS) using Isotope Dilution
AXS-SOP-031	Access Analytical - SOP for Legionella by Legiolert
AEL VOC-009	Advanced Environmental Laboratories - Method 8015C
	Nonhalogenated Volatile Organics Using GC/FID
AEL SOP-041	Advanced Environmental Laboratories - Per- & Polyfluoroalkyl
	Substances in Drinking Water or Water by Isotope Dilution Anion
	Exchange SPE and HPLC/MS/MS
AOAC 990.12	Aerobic Plate Count in Foods Petrifilm Method
ALPHA SOP 23528	Alpha Analytical - Selected Perfluorinated Alkyl Substances by SPE
	and Isotope Dilution LC/MS/MS
HN-LCMS-002 (ASTM D7968-	ALS Environmental Holland - Per- & Polyfluoroalkyl Substances
17)	(PFAS) by HPLC/MS-MS
HN-LCMS-002 (ASTM D7968-	ALS Environmental Holland - Per- & Polyfluoroalkyl Substances
17a)	(PFAS) by HPLC/MS-MS
HN-LCMS-002 (EPA 8327)	ALS Environmental Holland - Per- & Polyfluoroalkyl Substances
	(PFAS) by HPLC/MS-MS
HN-LCMS-001 (EPA 537)	ALS Environmental Holland - Per- & Polyfluoroalkyl Substances
	(PFAS) HPLC/MS-MS
ALS Jacksonville CASF GEN-	ALS Jacksonville - Calculating Total Nitrogen, Total Inorganic
TN	Nitrogen, and Total Organic Nitrogen
ALS GEN-Ion Chrom	ALS Jacksonville - Ion Chromatography
ALS Jacksonville SVM	ALS Jacksonville - Semivolatile Organic Compounds by GC/MS SIM
8270DSIM	
ALS Kelso LCP-PFC_NJ	ALS Kelso - Perfluorinated Compounds by HPLC-MS-MS
ALS Kelso LCP-PFC	ALS Kelso - Perfluorinated Compounds by HPLC-MS-MS
ALS Kelso LCP-PFC	ALS Kelso - Perfluorinated Compounds by HPLC-MS-MS
ASA 21-2	Amecican Society of Agronomy - Water Content
MSA #9 ASA Sec 60-3.4	American Society of Agronomy - Methods of Soil Analysis
	Monograph #9 Sec 60-3.4
EPA/821/R-02/012 -	Amphipod (Hyalella azteca) Acute Toxicity
Amphipod (Hyalella azteca)	
Acute Toxicity	
EPA/600/R-94/025 -	Amphipod Toxicity
Amphipod 10 Day Acute	
(100.4)	
AES SOP OA-11051	Analytical Environmental Services - SOP for Volatile Organic
	Compounds (VOCs) in Air by EPA Methods TO-14A & TO-15
ALI-A-124 SOP	Anatek Lab-Per- and Polyfluoroalkyl Substances in Drinking Water by
	Isotope Dilution Anion Exchange SPE and (LC/MS/MS)
ALI-A-118 SOP	Anatek Lab-Selected Perfluorinated Alkyl Acids in Drinking Water by
	SPE and (LC/MS/MS)

Method Reference	Method Title
NYELAP 198.6	Asbestos in Non-Friable Organically Bound Bulk Samples by PLM
NYELAP 198.4	Asbestos in Non-Friable Organically Bound Bulk Samples by TEM
EPA 1006.0 - Atherinops	Atherinops affinis Larval Development Test
affinis Chronic Toxicity	
AXYS SOP MLA-028	AXYS - Organochlorine Pesticides by Isotope Dilution HRGC/GRMS
AXYS SOP MLA-007	AXYS - PCB Archlors, Total PCBs and PCB Congeners, Chlorinated
	Pesticides, Chlorbenzenes, Technical Toxiphene, Toxaphene
	Congeners/ Planars
AXYS SOP MLA-007	AXYS - PCB Archlors, Total PCBs and PCB Congeners, Chlorinated
	Pesticides, Chlorbenzenes, Technical Toxiphene, Toxaphene
	Congeners/Planars
AXYS SOP MLA-010	AXYS - PCB Congeners by EPA Method 1668A, EPA Method 1668C, or
	EPA Method CBC01.2
AXYS SOP MLA-110	AXYS - Per- & Polyfluoroalkyl Substances in Aqueous Samples, Solids,
	Tissues, & Solvent Extracts by LC-MS/MS
AXYS SOP MLA-021	AXYS - Polycyclic Aromatic Hydrocarbons (PAH), Alkylated Polycyclic
	Aromatic Hydrocarbons, and Alkanes
BNO 5-202	Battelle Analytical - Determination of Low Level Total Petroleum
	Hydrocarbon and Individual Hydrocarbon Concentrations in
	Environmental Samples by GC/FID
BNO 5-315	Battelle Analytical - Identification & Quantitation of Polychlorinated
	Biphenyl Congeners, PCB Homologues, & Chlorinated Pesticides by
	GC/MS SIM
BNO 5-128	Battelle Analytical - Identification & Quantitation of Polychlorinated
	Biphenyls (by Congener & Arocior) & Chlorinated Pesticides by
DNO 5 457	GC/ECD
BNO 2-127	Battelle Analytical - Identification & Quantitation of Semi-volatile
PNO 5 271	Diganic Compounds by GC/MS
BNO 5-371	Battelle Analytical - Poly & Periluoroalkyl Substances in Drinking
	vortion 1.0
PNO 5 260	Pattollo Analytical Poly & Porfluoroalky/ Substances in
ыю 5-309	Environmental Samples by HDLC/MS/MS
BCS SOB V-11 Plaque Coupr	BCS Labs Gainesville - Colinhage Solid Based on EPA 1601 & 1602
1-laver	(single-agar-layer ontion)
BCS SOP V-10 Plaque Count	BCS Labs Gainesville - Colinhage Water Based on EPA 1601 & 1602
2-Sten	(2-step option)
BCS SOP V-10 Plaque Count	BCS Labs Gainesville - Colinhage Water Based on EPA 1601 & 1602
1-laver	(single-agar-layer option)
BCS SOP B-2 (FPA1603)	BCS Labs Gainesville - E. coli in Water by Membrane Filtration and
	Modified mTFC
BCS SOP M-7 MF	BCS Labs Gainesville - Standard Heterotrophic Plate Count Procedure
	for Solids (membrane filtration option)
BCS SOP M-7 Pour Plate	BCS Labs Gainesville - Standard Heterotrophic Plate Count Procedure
	for Solids (pour-plate option)

Method Reference	Method Title
BCS SOP M-7 Spread Plate	BCS Labs Gainesville - Standard Heterotrophic Plate Count Procedure
	for Solids (spread-plate option)
BEI VOC-624.1	Benchmark EnviroAnalytical - EPA 624.1 Purgeables
SM 4500-Br ⁻ D-2011	Bromide by Flow Injection
BAL SOP-4201	Brooks Applied Labs - Selenium Speciation by IC-ICP-MS
BCWWS SOP EPA 200.8	Broward County - EPA 200.8 by ICP-MS
BSK SOP OR-SP-0063	BSK Associates - PFAS by DoD QSM Version 5.1
CAM SOP-00894	Bureau Veritas - Perfluorinated Compounds in Water and Soil by LC- MS-MS
SRL 524M-TCP	CA ELAP - 1, 2, 3-Trichloropropane in Drinking Water by Purge and Trap GC/MS
TKN plus Nitrate-Nitrite	Calculation of TKN plus Nitrate-Nitrite
SM 4500-S2 ⁻ H	Calculation on Un-ionized Hydrogen Sulfide
TKN minus Ammonia	Calulation of TKN minus Ammonia
SM 5210B-2011 plus HACH 10360	CBOD and 5-Day BOD by LDO
CAChE-NACF SOP-003	Center for Aquatic Chem. & Env Chlorophyll-a in Water Samples
CAChE-NACF SOP-004	Center for Aquatic Chem. & Env Filtered Nutrients in Water
CAChE-NACF SOP-005	Center for Aquatic Chem. & Env Silica in Water
CAChE-NACF SOP-006	Center for Aquatic Chem. & Env Total Nitrogen in Water
CAChE-NACF SOP-007	Center for Aquatic Chem. & Env Total Organic Carbon in Water
CAChE-NACF SOP-008P	Center for Aquatic Chem. & Env Total Phosphorus in Water
CAChE-NACF SOP-008	Center for Aquatic Chem. & Env Total Phosphorus in Water,
	Sediments, Soil, & Tissue Samples
FLDEP TPHCWG Direct	Characterization of C6 to C35 Petroleum Hydrocarbons in
Method	Environmetal Samples
EPA/600/R-94/024 -	Chironomus Dilutus 10 Day Acute
Chironomus Dilutus 10 Day	
Acute (100.2)	
EPA/600/R-94/024 -	Chironomus Dilutus Long-Term Acute
Chironomus Dilutus Long-	
Term Acute	
NIOSH 7500	Chrystalline Silica by XRD
CCPC SOP Collier-EPA200.8	Collier County - Elemental Analysis by ICP-MS
HACH 10238	Copper by Bathocuprine Method
CWM SOP/MB/1300	CWM Environmetal - Legionella Testing by Legiolert
DBE SOP OPO4	DB Environmental - Orthophosphate in Waters
DBE SOP MVP/COE 3-59	DB Environmental - SOP Volatile Solids, Ash
DBE SOP TP	DB Environmental - Total Phosphorus for Solids and Biological Tissue
AOAC-PTM #121806	E. coli O157:H7 and Non O157:H7 STEC by GENE-UP
AOAC 2019.03	E.coli O157:H7 in Select Foods by GENE-UP
ERG-MOR-063	Eastern Research Group - SOP for the Preparation & Analysis of
	Hexavalent Chromium by Ion Chromatography
ENMT 50-009	Energy Labs MT - Semivolatile Organic Compounds (SVOC) by GC/MS
ENMT 50-213	Energy Labs MT - Trace Elements in Aqueous Samples by ICP-MS

Method Reference	Method Title
ENWY 50-243	Energy Labs WY - Common Anions in Water & Aqueous Samples by
	IC
ENMT 50-334	Energy Labs WY - Determination of Selected Per- & Polyfluoroalkyl
	Substances (PFAS) in Waters and Soils by Liquid
	Chromatography/Tandem Mass Spectrometry (LC/MS/MS)
ENWY 50-235	Energy Labs WY - Isotopic Thorium and Th-230 in NORM Samples,
	EPA Method 908.0
ENMT 50-288	Energy Labs WY - Nitrogen- & Phosphorus-Containing Pesticides in
	Water & Soil by GC/MS
ENWY 50-205	Energy Labs WY - Sequential Analysis of Radium-226 and Radium-
	228
AOAC 2003.01	Enumeration of Enterobacteriaceae in Selected Foods by Petrifilm
ENCO VGCMS-05	Environmental Conservation Laboratories - Analysis of Volatile
	Organic Compounds by GC/MS
ENCO SOP MET	Environmental Conservation Laboratories - Metals Analysis Using
	ICP-MS
ENCO VGCMS-07	Environmental Conservation Laboratories - Volatile Organic
	Compounds in Ambient Air by GC/MS
EPA R5 SOP OM021	EPA Region 5 - PFAS in water by HPLC/MS/MS
(ASTMD7979-19)	
AOAC 2017.01	Esherichia coli O157:H7 in Selected Foods by 3M Molecular
	Detection Assay
EC SOP-M422	Eurofins Calscience - Butyltin Species and Butyltins in Sediment and
	English Sole Livers from Puget Sound
WS-LC-0025	Eurofins TestAmerica Sacramento - Per and Polyfluorinated Alkyl
	Substances (PFAS) in Water, Soils, Sediments, and Tissues
SA-LC-074	Eurofins TestAmerica Savanna - Acrylic Acid via HPLC
ТР-ВА-004	Eurofins TestAmerica Tampa - Fecal Coliform by Chromogenic
	Quantitray
ASTM D93-19	Flash Point by Pensky-Martens Closed Cup Tester
EPA 1010B	Flash Point by Pensky-Martens Closed Cup Tester
EPA 1020C	Flashpoint by Setaflash Closed-Cup Apparatus
FLDEP SOP LC-001-2	Florida DEP - Pesticides, Herbicides, and Other Chemicals in Sample
	Extracts by HPLC/MS/MS
FLDEP SOP NU-076	Florida DEP - Total Organic Carbon (TOC) Using the Shimadzu SSM-
	5000A Solid Sample Module
FSE ICP	Florida Spectrum Env Services - Metals in Water by ICP
FSE OG-TRPH	Florida Spectrum Env Services - Oil & Grease & TRPH (SGT-HEM) in
	Solis & Sediments
FSE OPP	Florida Spectrum Env Services - Organophosphorus Pesticides
	Compounds
	Fiorida Spectrum Env Services - Total Halogens
FSE VUL	FIORIDA Spectrum Env Services - volatile Organic Compounds by
	GC/IVIS
FUL SUP 1.85 Legiolert-Elite	
NIUSH 2016	Formaldenyde by HPLC/UV-VIS

Method Reference	Method Title
HACH 10069	Free Chlorine
FGS-070	Frontier Global Sciences - Methyl Mercury in Various Matrices by CV-
	GC-AFS
FGS-069	Frontier Global Sciences -Total Mercury in Various Matrices by FI-
	AFS
FGS-054	Frontierlobal Sciences - Trace Metals by ICPMS
FL SOP 100.4	Future Labs SOP for Legionella Pneumophila in Water by Legiolert
GENE-UP IS1086	GENE-UP Aspergillus Molds in Cannabis
USGS 0-2141-09	Glyphosate, its Degradation Product Aminomethylphosphonic Acid,
	and Glufosinate, in Water by Isotope Dilution and Online Solid-Phase
	Extraction and Liquid Chromatography/Tandem Mass Spectrometry
OSHA ID-215	Hexavalent Chrome
HGS SOP-999	HGS Water Lab - Legionella from Non-Potable Water
HGS SOP-001	HGS Water Lab - Legionella from Potable & Non-Potable Water
EPA/600/R-94/024 - Hyalella	Hyalella Azteca 10 Day Acute
Azteca 10 Day Acute (100.1)	
EPA/600/R-94/024 - Hyalella	Hyalella Azteca 42 Day Acute
Azteca 42 Day Acute	
EPA/600/R-94/024 - Hyalella	Hyalella Azteca Acute Toxicity
Azteca Acute Toxicity	
40 CFR Part 763 Sub E,	Interim Method of Determination of Asbestos in Bulk Insulation
Appendix E	Samples
JEA SOP 625	JEA - 1,2-Diphenylhydrazine, Base/Neutral Extractables by Gas
	Chromatography/Mass Spectrometry
JEL 200.8	Jupiter Env. Labs - Metals in Water by ICP-MS
JEL 8321	Jupiter Env. Labs - Pesticides, Herbicides, and Other Chemicals in
	Water and Sediment/Waste Sample Extracts by HPLC/MS-MS
JEL 1694	Jupiter Env. Labs - Pharmaceuticals and Personal Care Products in
	Water, Soil, Sediment, and Biosolids by HPLC/MS/MS
JEL 8270	Jupiter Env. Labs - Semivolatile Organics Analysis oif Base Neutral &
	Acid Extractables by GC/MS
ASTM E1676-12	Laboratory Soil Toxicity or Bioaccumulation with the Lumbrcid
	Earthworm Eisenia fetida and the Enchytraeid Potworm Enchytraeus
FDA (600/D 01/020	albidus
EPA/600/R-01/020 -	Leptocheirus piumulosus Chronic Toxicity
Chronic Toxicity	
	Listoria manageta taganga in a Variaty of Faceda and Calast
AUAC 2016.08	Listeria monocytogenes in a variety of Foods and Select
AQAC 2010 11	Listoria managetaganas in a Variaty of Foods and Coloct
AUAC 2019.11	Environments CENE LID
AOAC 2016 07	Livinonments Gene-OF
AUAC 2010.07	Molecular Detection Assay
	Massachusetts Department of Environmental Protection
	Extractable Detroleum Hydrocarbons (EDH)

Method Reference	Method Title
IDNR OA-1 (GC-FID)	Method for Determination of Volatile Petroleum Hydrocarbons
	(Gasoline) - Iowa Dnr
OVL HPLC02	Microbac Labs Ohio Valley - Analysis of Nitroaromatics & Nitramines
	by HPLC Method 8330
OVL HPLC03	Microbac Labs Ohio Valley - Organic Analysis of Metabolic Acids
	Method 830MB
OVL MSS01	Microbac Labs Ohio Valley - Organic Analytes Methods 8270 & 625.1
OVL MSV01	Microbac Labs Ohio Valley - Volatile Organic Analytes by Method
	8260
EPA/821/R-02/012 - Midge	Midge (Chironomus tetans) Acute Toxicity
Acute Toxicity	
MO-DRO	Missouri - Diesel Range Organics
MO-GRO	Missouri - Gasoline Range Organics
Shimadzu Bal-001	Moisture Content of Cannabis and Hemp Flower as Measured with a
	Shimadzu MOC63u Moisture Analyuzer
MT-DRO	Montana - Diesel Range Organics
MT-GRO	Montana - Gasoline Range Organics
FPA NAREL AM/SOP-1	NAREL SOP-Actinides in Environmental Matrices
EPA NAREL AM/SOP-33	NAREL SOP-Gamma Spectrometry in the Mobile Environmental
	Radiation Laboratory
FPA NAREL AM/SOP-3	NAREL SOP-Gamma Spectroscopy
EPA NAREL AM/SOP-43	NAREL SOP-Badium-226 Analysis of Liquid and Solid Matrices
EPA NAREL AM/SOP-7	NAREL SOP-Tritium in Non-notable Water
SM 4500-NO3 D plus SM	Nitrate Nitrogen minus Nitrite Nitrogen
4500 NO2 B	
SM 4500-NO3 H minus SM	Nitrate Nitrogen minus Nitrite Nitrogen
4500 NO2 B	
FPA 521	Nitrosamines in Drinking Water by SPE and GC with Large Volume
	Injection and CLMS/MS
NB SOP-Water-119	Nova Biologicals - Legiolert
NYDOH SOP LOAC-311-9	NYDOH - Determination Tetrachloroethene in Air using Passive
	Sampling Devices (PSDs
OR DEO DEO11-LAB-0031-	Oregon DEO - Solvent Extractable Nonvolatile Compounds by
SOP	HPLC/ES/MS - EPA 8321A
PACE ENV-SOP-MIN4-0001	Pace Analytical - Air Samples for Volatile Organic Compounds by
	GC/PID-FID Method TO-3
PACE ENV-SOP-ORB1-0080	Pace Analytical - Analysis of Per- & Polyfluorinated Alkyl Substances
	Water by EPA 537.1
PACE ENV-SOP-ORB1-0067	Pace Analytical - Cylindrospermopsin and Anatoxin-A by LC/MS/MS
PACE SOP S-FL-O-37	Pace Analytical - GCMS Volatiles Water and Soil
PACE ENV-SOP-MIN4-0149	Pace Analytical - PFAAS by SPE by LC/MS/MS with Isotope Dilution
PACE ENV-SOP-MIN4-0177	Pace Analytical - PFAS by 537.1 Modified
PACE ENV SOP-FNV-MIN4-	Pace Analytical - Preparation & Analysis of Samples for the
0031	Determination of Chlorinated Biphenvl Congeners
PACE SOP S-FL-M-004	Pace Analytical Ormund Beach - ICP-MS for Metals in Water FPA by
	200.8/6020

Method Reference	Method Title
SES SOP ME00213	Pace Analytical W Columbia - Per- & Polyfluoroalkyl Substances
	(PFAS) by LC-MS-MS, 537 Modified ID, 537 Modified DS (Isotope
	Dilution)
SES SOP ME00213-13	Pace Analytical W Columbia -Per- & Polyfluoroalkyl Substances
	(PFAS) by LC-MS-MS (Direct Aqueous Injection)
SES SOP ME00217	Pace Analytical W Columbia -Per- & Polyfluoroalkyl Substances
	(PFAS) by LC-MS-MS (Direct Aqueous Injection)
EPA 533	PFAS in DW by Isotope Dilution and SPE by HPLC/MS/MS
PHILIS CSS SOP L-A-306	PHILIS Analytical - CP Acid Herbicides by HPLC-MS-MS
PCU Legiolert	Pinellas County Utilities - Enzyme Substrate Test for Legionella
	Pneumophila, Legiolert
DOE EML PU-10-RC	Plutonium in Water Digestion
NYELAP 198.1	Polarized-Light Microscope Methods for Identifying & Quantitating
	Asbestos in Bulk Samples
Shimadzu HPLC-016	Potency Testing in Cannabis Extracts Using a High Sensitivity Method
	with the Cannabis Analyzer for Potency
EPA/600/3-88/029	Protocols for Short-Term Toxicity Screening of Hazardous Waste
	Sites
EPA/600/R-95/136 - Purple	Purple Sea Urchin (Strongylocentrotus purpuratus) Development
Sea Urchin Development	
EPA 1008.0 - Purple Sea	Purple Sea Urchin (Strongylocentrotus purpuratus) Fertilization
Urchin Fertizilation	
EPA/402/R-10/001	Radium-226 in Water for Environmental Restoration Following
	Homeland Security Events
AOAC RI 080601	RapidChek SELECT Salmonella
EPA/600/R-95/136 - Red	Red Abalone (Haliotis rufescens) Development
Abalone Development	
AUAC 2020.02	Salmonella species in a Broad Range of Foods and Select
EDA/GOO/D OF/126 Sand	Environmental samples GENE-OP samonella Test Method
Dellar Dovelopment	Sand Donar (D. excentricus) Development
EPA 1008 0 - Sand Dollar	Sand Dollar (D. excentricus) Fertizilation
Fertilization	
SL SOP Legiolert #41	Sanders Labs Nokomis - IDEXX Legiolert Test Method for the
	Detection of Legionella Pneumophila in Water
SERCMLAB-005-04	SE Env Research Lab Mercury Div - Methylmercury in Soil &
	Sediment Samples
SERCMLAB-006-04	SE Env Research Lab Mercury Div - Methylmercury in Tissue Samples
SERCMLAB-004-04	SE Env Research Lab Mercury Div - Methylmercury in Water Samples
SERCMLAB-002-04	SE Env Research Lab Mercury Div - Total Mercury in Soils &
	Sediments
SERCMLAB-003-04	SE Env Research Lab Mercury Div - Total Mercury in Tissue Samples
SERCMLAB-001-04	SE Env Research Lab Mercury Div - Total Mercury in Water Samples
SERCMLAB-008-09	SE Env Research Lab Mercury Div - Trace Metals in Soil Samples
SERCMLAB-007-09	SE Env Research Lab Mercury Div - Trace Metals in Water Samples
ASTM D3977-97 (2019)	Sediment Concentration in Water Samples

Method Reference	Method Title
ASTM E1611-00 (2013)	Sediment Toxicity Tests with Polychaetous Annelids
EPA 8270E GC/MS-MS	Semivolatile Organic compounds by GC/MS-MS
SGS SOP AP-CM 4	SGS - PAHs by Isotope Dilution HRGC/HRMS
SGS AXYS MLA-228	SGS AXYS - Organochlorine Pesticides by Isotope Dilution GC-MS/MS
SGS AXYS MLA-028	SGS AXYS - Organochlorine Pesticides by Isotope Dilution
	HRGC/GRMS
SGS AXYS MLA-010	SGS AXYS - PCB Congeners by EPA Method 1668A, EPA Method
	1668C, or EPA Method CBC01.2
SGS AXYS MLA-210	SGS AXYS - PCB Congeners by GC-MS/MS
SGS AXYS MLA-110	SGS AXYS - Per- & Polyfluoroalkyl Substances in Aqueous Samples,
	Solids, Tissues, & Solvent Extracts by LC-MS/MS
SGS AXYS MLA-908	SGS AXYS - Polychlorinated Biphenyl (PCB) Homolog Analysis
SGS AXYS MLA-217	SGS AXYS - Polychlorinated Dibenzodioxins & Dibenzofurans Using
	Draft ATM-16130
SGS AXYS MLA-021	SGS AXYS - Polycyclic Aromatic Hydrocarbons (PAH), Alkylated
	Polycyclic Aromatic Hydrocarbons, and Alkanes
SGS-OR ALS MS-014	SGS Orlando - Per- & Polyfluorinated Alkyl Substances by LC/MS/MS
	and isotope Dilution
SGS-OR ALS MIS-005	SGS Orlando - Voldtile Organics by GC/MS
	Solium by Direct ISE Mothod
SEWIND SOD 1610	South Elevida WMD Ash & Ash Erea Dry Weight Contents in
SFWIND SOF 1010	Soll/Sediment and Biological Tissue
SEWMD SOP 1620	South Florida WMD - Percent Moisture in Solids
SEWMD SOP 1620	South Florida WMD - pH of Soil/Sediment Samples
SEWMD SOP 3200	South Florida WMD - Total Organic Carbon, Total Carbon and
	Nitrogen, in Solids
SFWMD SOP 2200	South Florida WMD - Total Recoverable Elements in Soil, Sediment,
	& Tissue Samples by Inductively Coupled Plasma Spectroscopy
HACH 10206	Spectrophotometric Measurement of Nitrate in Water and
	Wastewater
ASTM E724-98 (2012)	Static Acute Toxicity Tests Starting with Embryos of Four Species of
	Saltwater Bivalve Molluscs
ASTM E1563-98(2012)	Static Acute Toxicity Tests with Echinoid Embyos
LACHAT 10-116-10-2-A	Sulfate by Flow Injection and Methylthymol Blue
SET SM5560D M	Summit Env Technologies - Organic & Volatile Acids by Standard
	Methods 5560D Modified
SET EPA 901.1 Modified/DOE	Summit Env Technologies - Radionuclides in Soil and Solid Waste
EML Ga-01-R	
Tampa WQ SOP 200.8	Tampa WQ - Trace Metals by ICP/MS
KNOX-MS-0017	TestAmerica Knoxville - Semivolatile organics in air and emissions
	(modified & expended IO-13)
KNOX-MS-001	I estAmerica Knoxville - Volatile organics in air and emissions
	(moaified 10-14A & 10-15)
PS-IC-UU2 (EPA 218.7)	TestAmerica Pensacola - Ion Chromatography [EPA Methods 218.7]
SI-KC-0079	TestAmerica St Louis - Radiochemical Determination of Selenium-79

Method Reference	Method Title
ST-RC-0222	TestAmerica St Louis - Radon-222
Eichrom Technologies	Thorium in Water
ACW10	
HACH 10070	Total Chlorine
SEAL EPA-136-D	Total Kjeldahl Nitrogen-N (Copper Catalyst) in Drinking Water,
	Ground and Surface Waters, Domestic and Industrial Wastes
SEAL EPA-135-C	Total Phosphorus-P in Kjeldahl Digests (Copper Catalyst) of Drinking
	Water, Ground and Surface Waters, Domestic and Industrial Wastes
ASTM E1367-03 (2014)) -	Toxicity of Sediment-Associated Contaminants with Rhepoxynius
Rhepoxynius abronis	abronis
VAEL SOP SM 4500-P H	Vermont Agricultural Environmental Laboratory - Total Phosphorus
VAL SOP 49	Vista Analytical Laboratory - Per and Poly-fluorinated Compounds
EPA TO-15A	VOCs Collected in Canisters by GC/MS
WA DOE 80-12	Washington Dept of Ecology - Biological Testing Methods for the
	Designation of Dangerous Waste

New Analytes Added in 2020

Name	CAS Number
(Aminomethyl)phosphonic acid (AMPA)	1066-51-9
1,1,2,2-Tetrafluoro-2-(1,2,2,2-tetrafluoroethoxy)ethane-1-sulfonic acid (NVHOS)	801209-99-4
1,1,2,2-tetrafluoro-2-[1,2,2,3,3-pentafluoro-1-(trifluoromethyl)propoxy]	2416366-21-5
ethanesulfonic acid (R-PSDCA)	
1,2-Dimethyl-3,4-dinitrobenzene	603-06-5
1,2-Dimethyl-3,5-dinitrobenzene	616-69-3
1,2-Dimethyl-3,6-dinitrobenzene	610-03-7
1,2-Dimethyl-4,5-dinitrobenzene	3395-03-7
1,3-Dibromobenzene	108-36-1
1,3-Dimethyl-2,4-dinitrobenzene	603-02-1
1,3-Dimethyl-2,5-dinitrobenzene	74709-95-8
1,4-Dibromobenzene	106-37-6
1,4-Dimethyl-2,3-dinitrobenzene	711-41-1
1,4-Dimethyl-2,5-dinitrobenzene	712-32-3
1,4-Dimethyl-2,6-dinitrobenzene	609-92-7
1,5-Dimethyl-2,3-Dinitrobenzene	65151-56-6
1,5-Dimethyl-2,4-dinitrobenzene	616-72-8
1,8-Dinitropyrene	42397-65-9
1-Bromo-4-ethylbennzene	1585-07-5
1-Nitropyrene	5522-43-0
2,2,3,3-Tetrafluoro-3-{[1,1,1,2,3,3-hexafluoro-3-(1,2,2,2-	773804-62-9
tetrafluoroethoxy)propan-2-yl]oxy}propanoic acid (Hydro-EVE Acid)	
2,2,3-Trimethylbutane	464-06-2
2,2-Difluoro-2-(trifluoromethoxy) Acetic acid (PFMOAA)	674-13-5
2,3-Diaminotoluene	2687-25-45

Name	CAS Number
2-Bromopyridine	109-04-6
2H-Tetrahydropyran	142-68-7
2-Methylbenzothiazole	120-75-2
2-Nitrofluorene	607-57-8
2-Perfluorodecylethanoic acid (10:2 FTCA)	53826-13-4
2-Perfluorohexylethanoic acid (6:2 FTCA)	53826-12-3
2-Phenoxyethanol	122-99-6
2-Phenyl-2-propanol	617-94-7
2-tert-Butyl-4-methylphenol	2409-55-4
3,3-Dimethylpentane	562-49-2
3,4-Diaminotoluene	496-72-0
3,5-Dimethylphenol	108-68-9
3-Amino-4-chlorobenzotrifluoride	121-50-6
3'-Bromoacetophenone	2142-63-4
3-Ethylpentane	617-78-7
4-(2-carboxy-1,1,2,2-tetrafluoroethoxy)-2,2,3,3,4,5,5,5-octafluoro-pentanoic acid (R-EVE)	2416366-22-6
4.4'-Dichlorobenzil	3457-46-3
4-Chloro-3-nitrobenzotrifluoride	121-17-5
4-Chlorobenzenethiol	106-54-7
4-Cumylphenol	599-64-4
4'-Methylacetophenone	122-00-9
4-Methylstyrene	622-97-9
Acesulame K	55589+-62-3
Afidopyropen	915972-17-7
Aspartame	22839-47-0
Benzovindiflupyr	1072957-71-1
Chironomus dilutus	NA
Clothianidin	210880-92-5
Crystalline SiO2	14808-60-7
delta 8-tetrahydrocannabinol (THC)	5957-75-5
Dendraster excentricus	NA
Deoxynivalenol	51481-10-8
Desmethyl microcystin LR	120011-66-7
Dimethyl disulfide	624-92-0
Dinotefuran	16252-70-0
Echinoderm fertilization	NA
Glufosinate	51276-47-2
Glufosinate-ammonia	77182-82-2
Haliotis rufescens	NA
Imazapyr	81334-34-1
Listeria monocytogenes	NA

Name	CAS Number
Listeria Species	NA
Mandestrobin	173662-97-0
Meteoric Water Mobility Procedure	NA
Microsystin LW	157622-02-1
Microsystin WR	138234-58-9
Neanthes arenaceondentata	NA
Nephtys caecoides	NA
Ochratoxin A	303-47-9
Perfluoro-2-{[perfluoro-3-(perfluoroethoxy)-2-propanyl]oxy}ethanesulfonic acid (Hydro-PS Acid)	749836-20-2
Perfluoro-2-ethoxypropanoic acid (PEPA)	267239-61-2
Perfluoro-2-methoxypropanoic acid (PMPA)	13140-29-9
Perfluoro-3,5,7,9,11-pentaoxadodecanoic acid (PFO5DoA)	39492-91-6
Perfluoro-3,5,7,9-butaoxadecanoic acid (PFO4DA)	39492-90-5
Perfluoro-3,5,7-trioxaoctanoic acid (PFO3OA)	39492-89-2
Perfluoro-3,5-dioxahexanoic acid (PFO2HxA)	39492-88-1
Perfluoro-4-ethylcyclohexanesulfonic acid (PFecHS)	133201-07-7
Perfluoro-4-isopropoxybutanoic acid (PFPE-1)	801212-59-9
Perfluorobutylsulfonamide	30334-69-1
Perfluorohexanesulfonamide	41997-13-1
Perfluoropropanesulfonic acid (PFPrS)	423-41-6
Perfluoropropionic acid (PFPrA)	422-64-0
Pyraclostrobin	175013-18-0
Rhepoxynius abronius	NA
sec-Butyl ether	6863-58-7
Shiga Toxin Producing E. coli (STEC)	NA
Sucralose	56038-13-2
Sucrose	57-50-1
Sum - 1,2-Diphenylhyrdazine + Azobenzene	NA
Sum - Isobutyric acid + Butyric acid	NA
Tetrachloro-m-xylene	877-09-8
Tolfenpyrad	129558-76-5
Total Difluorobenzenes	NA
Total Methylchrysenes	NA
Total Methylnaphthalenes	NA
Traminetrinitrobenzene	3058-38-6
Triethyl phosphate	78-40-0