1. Roll call, approval of minutes and overview:

Chair, Maria Friedman, called the TNI PT Program Executive Committee (PTPEC) meeting to order at 1:30pm Eastern on August 7, 2019 in Jacksonville, FL. Attendance is recorded in Attachment A – there were 9 members present.

2. Overview

Maria reviewed the introductory slides and the meeting agenda (see Attachment D).

- FoPT tables now have a tab that shows what has changed.
- Date of scoring change in the new Standard is 1/31/20.
- Will likely need data to address the PA ARA.

3. PTPA Reports

A copy of the PTPA reports presented can be found in Attachment E.

ANAB, ANSI National Accreditation Board – Melanie Ross

Melanie now works with the PT Providers. She is in business development and is also an assessor.

- There were no complaints.
- Reviewed failure rates at >10%
  Looked at Jan through June 2019
  - Reviewed study type/analyte combination
  - Analytes of concern
  - Historical study data (18 months)

  There is no insight when one lab reports multiple methods and fails. Looked like high failure, but it was really only 2 labs.

- Data Issues:
1. Metals (SCM) pass rate less than 90% of study  
   a. 15/18 analytes  
   b. Requested investigation by the provider  
      i. Blunder included in analysis.  
2. Invalidated Study  
   a. Pooled mean for Total Coliform, Fecal Coliform and E. coli exceeded upper 
      limit of 200 cfu or mpn per 100 mL  
      i. Replacement PT round opened (sent note to study participants)  
      ii. They had a prep issue  

   • Data Analysis  
   
   343 Fail Rate >10%  343 studies  
   if N>20 there were 54 studies  
   
   This is similar to last year.  
   
   There were 5 analytes with issues  
   
   WPChem – Iron, TSS, TDS, TS and Turbidity  
   Scattered throughout all the providers.  
   
   WSChem – Fluoride – looked at in more detail.  
   
   Andy - Perhaps there could be a concentration range issue? Matt did not think this 
   was the case.  
   
   There was nothing that could be pointed to for the failures. 83%, 87%, 88%, 89% 
   and 89% passed. Just fell under the 10% criteria. N>20  
   
   WPChem – Phosphorus  
   81, 84, 86, 88, 89%. N>20  
   
   Fail rates are consistent year over year – no appreciable trends noted.  

   A2LA – Shawn Kassner  
   
   He looked at a year’s worth of data for 4 PT Providers.  
   
   There were no complaints.  
   
   They found similar results to ANAB. No real changes.  
   
   They find issues with small data sets. It skews the data.  
   
   Soils –  
   1,2-Dichlorobenzene, 2,4-D and Aroclor 1221  10.2 – 11.4% failure rate.
WP Organics –
Benzo(a)anthracene was a new one (10.5%).

WS Inorganics –
Cyanide was a surprise - 11.2%.

PTPAs don’t get method data. This is something the PT Providers could provide.

Matt noted that ANAB works with smaller N’s.

4. Subcommittee Reports

Report summaries are included in Attachment D.

Analyte Breakdown Committee

Additional data is being requested.

Chemistry FoPT Subcommittee

See slides in Attachment D.

Next meeting in September 2019.

Microbiology FoPT Subcommittee

Michella Karapondo and Jennifer Best are working on a formal complaint regarding the NELAP AC’s decision to not approve the new Microbiology FoPT table. They are questioning whether the PT Program is national. The NELAP AC questioned the need for separate listings of MPN-Multiple Tube and MPN-Multiple Well PTs. Originally these PTs were combined into one and now they are separate. The NELAP AC did not accept it. They don’t want method specific parameters.

Ilona noted that based on discussions with Jerry, the PTPEC needs to consider who its customers are. Is it a national program? This was the understanding when it was set-up.

Stacie Crandall raised concerns with the concept that the PT Program is national. She did not think other state needs should be considered and that the NELAP AC is the customer. What is the purpose of the PT Program? If we say it is a national program … wouldn’t there be issues where people will have to run state specific PTs?
Eric noted that there isn’t anything in TNI that says there can’t be a method specific FoPT analytes.

Matt – Do we have multiple well as a technology in the database? Dan Hickman – it is listed as a separate method. It’s a technology defined parameter.

Need to possibly make the SOPs clearer.

Stacie asked if it is a training issue? Is there a need to do more training on microbiology?


Eric - Maybe there should be a revised approach to keeping the AC up to date on the status of ARAs. Ilona commented that maybe a table in the monthly report with the list of the ARAs and status could be maintained. Maybe set-up a regular meeting with the NELAP AC? Stacie asked if a subcommittee is needed. A liaison to work with the NELAP AC.

Stacie - Does the AC need to approve the table? Does this need to be taken away?

If it is a national program, what does that mean? Most people think that it was being designed for the NELAP AC. Ilona commented that this will be looked at in Worksheet 11 (see below).

FoPT Table Format Subcommittee

Craig Huff – Working with Rami and Dan Hickman. He sent three options to align the FoPT table with LAMS. Dan and Craig are aligned. Rami and the WET Expert Committee need to look at this and provide their input and opinion. One of the options is to just leave it alone.

Another piece of the puzzle is that WET PTs are really driven by the DMRQA program.

The PTPEC will still need to implement the tables the subcommittee has completed.

A review of LAMS needs to be done before an updated FoPT table is published.

PT SOP Subcommittee

Eric noted that SOP 4-101 (FoPT Limits) could be done in September/October for PTPEC review. The Subcommittee will begin work on SOP 4-108 (Conflict of Interest) soon.
Shawn will be providing information on new PT Program SOPs needed based on the new Standard.

New Business –

5. Worksheet 11 – TNI Strategic Planning Meeting

Maria reviewed the Strategic Planning documents that were sent by Jerry Parr for the Strategic Planning meeting in October. This will be a face to face meeting between the TNI Board, Executive Committee Chairs and TNI Staff. The PTPEC needs to complete Worksheet 11. Maria started updating Worksheet 11 and shared the document on screen.

Attachment F includes a copy of the work done on Worksheet 11 during the meeting. The items highlighted yellow are bigger discussion topics that need to be discussed at the next PTPEC meeting. Red text was add/deleted/changes during the meeting. Track changes was left on.

Ilona will check with Jerry for the current number of accredited laboratories.

The complaint language needs to be looked at.


None.

7. Action Items

The action items can be found in Attachment B. Updates were made directly into the table.

8. Next Meeting

The next meeting will be on 9/19/19, Thursday, at 1pm Eastern by teleconference. (Addition: Meeting time change to 11am Eastern.)

Action Items are included in Attachment B and Attachment C includes a listing of reminders.
## Attachment A

### Participants

TNI

Proficiency Testing Program Executive Committee

<table>
<thead>
<tr>
<th>Members</th>
<th>Rep</th>
<th>Affiliation</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maria Friedman (2020) (Chair)</td>
<td>AB</td>
<td>California Water Board</td>
<td><a href="mailto:Maria.Friedman@waterboards.ca.gov">Maria.Friedman@waterboards.ca.gov</a></td>
</tr>
<tr>
<td>Dixie Marlin (2021) (Vice-Chair)</td>
<td>Other</td>
<td>Marlin Quality Management, LLC</td>
<td><a href="mailto:marlinquality@gmail.com">marlinquality@gmail.com</a></td>
</tr>
<tr>
<td>Ilona Taunton, Program Administrator</td>
<td>TNI</td>
<td></td>
<td><a href="mailto:tauntoni@msn.com">tauntoni@msn.com</a></td>
</tr>
<tr>
<td>Eric Smith (2020)</td>
<td>Lab</td>
<td>ALS Environmental</td>
<td><a href="mailto:eric.smith@alsglobal.com">eric.smith@alsglobal.com</a></td>
</tr>
<tr>
<td>Carl Kircher (2021*)</td>
<td>AB</td>
<td>Florida Department of Health</td>
<td><a href="mailto:Carl.Kircher@flhealth.gov">Carl.Kircher@flhealth.gov</a></td>
</tr>
<tr>
<td>Andy Valkenburg (2021*)</td>
<td>LAB</td>
<td>Energy Laboratories</td>
<td><a href="mailto:avalkenburg@energylab.com">avalkenburg@energylab.com</a></td>
</tr>
<tr>
<td>Jennifer Duhon (2022)</td>
<td>Other</td>
<td>Millipore Sigma</td>
<td><a href="mailto:jennifer.duhon@sial.com">jennifer.duhon@sial.com</a></td>
</tr>
<tr>
<td>Matt Sica (2020)</td>
<td>AB</td>
<td>ANAB, ANSI-ASQ National Accreditation Board</td>
<td><a href="mailto:msica@anab.org">msica@anab.org</a></td>
</tr>
<tr>
<td>Patrick Garrity (2022)</td>
<td>AB</td>
<td>Kentucky DEP</td>
<td><a href="mailto:patrick.garrity@ky.gov">patrick.garrity@ky.gov</a></td>
</tr>
<tr>
<td>Michella Karapondo (2022)</td>
<td>Other</td>
<td>USEPA</td>
<td><a href="mailto:karapondo.michella@epa.gov">karapondo.michella@epa.gov</a></td>
</tr>
<tr>
<td>Fred Anderson (2020*)</td>
<td>Other</td>
<td>Advanced Analytical Solutions, LLC</td>
<td><a href="mailto:Fred@advancedqc.com">Fred@advancedqc.com</a></td>
</tr>
<tr>
<td>Jennifer Bordwell (2020*)</td>
<td>Lab</td>
<td>Upper Occoquan Service Authority</td>
<td><a href="mailto:jennifer.bordwell@uosa.org">jennifer.bordwell@uosa.org</a></td>
</tr>
<tr>
<td>Scott Haas (2020*)</td>
<td>FSMO</td>
<td>Environmental Testing, Inc.</td>
<td><a href="mailto:shaas@etilab.com">shaas@etilab.com</a></td>
</tr>
<tr>
<td>Rachel Ellis (2022*)</td>
<td>AB</td>
<td>New Jersey DEP</td>
<td><a href="mailto:rachel.ellis@dep.nj.gov">rachel.ellis@dep.nj.gov</a></td>
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### Action Items – TNI PT Executive Committee

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Who</th>
<th>Date Added</th>
<th>Expected Completion</th>
<th>Actual Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>295</td>
<td>Shawn, Ilona</td>
<td>New Date: 5/31/19</td>
<td>In Progress (will use 2016 TNI Standards and current SSAS Standards)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>349</td>
<td>ALL</td>
<td>4/20/17</td>
<td>4/25/17</td>
<td>In Progress (WET is still being reviewed. Update 1/23/18: Subcommittee expects to have updated FoPT tables with CAS #’s and LAMS changes by 3/15/18. 2/22/19: Still in progress. 6/21/18: Still working with Rami. 3/21/19: Stacie asked if the group should be working on this while ELAB is working through this.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2/28/18 – For WET? June 2018 for all tables. New target date: 4/30/19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>352</td>
<td>All</td>
<td>2/20/14</td>
<td>TBD (see #350)</td>
<td>In Progress – Update of SOP 4-101</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6/21/18: Gil noted that this SOP will be worked on again at the next meeting. An expected</td>
</tr>
<tr>
<td>Action Item</td>
<td>Who</td>
<td>Date Added</td>
<td>Expected Completion</td>
<td>Actual Completion</td>
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<tr>
<td>new limits? This lends to the TSS discussion a few months ago. Patrick commented that it would make sense to look at changes to pass/fail rates 6 months after new limits are effective. This possible addition to procedures should be evaluated when updating the limit acceptance SOP.</td>
<td></td>
<td></td>
<td>FoPT tables and applicable backburner items just moved to the Action Items table (#352, 353)</td>
<td>completion date will be given at July meeting.</td>
</tr>
<tr>
<td>361 Analyte Code changes needed in LAMS. (TKN)</td>
<td>Maria Dan Hickman</td>
<td>7/20/17</td>
<td>9/30/17</td>
<td>Still need to look into TKN issue. 2/22/18 – Maria will confirm. 10/18/18: Maria still needs to confirm. She just got something.</td>
</tr>
<tr>
<td>363 Discuss procedural change in how changes are made to LAMS. Consider notifying PTPEC before relevant changes are made and provide a summary of changes at some frequency.</td>
<td></td>
<td></td>
<td>1/31/17</td>
<td>Will talk to IT about getting this in an SOP. 12/21/17: Maria will follow-up on this. 3/20/18: Maria will check this week. 6/21/18 – still being worked on. 2/28/19 – Maria will follow-up.</td>
</tr>
<tr>
<td>368 Forward Jerry’s question to Chemistry FoPT Subcommittee. (Analyte code change for the non-polar extractable materials.)</td>
<td>Maria</td>
<td>8/24/17</td>
<td>9/1/17</td>
<td>Maria will resend to Carl. 6/21/18 – Maria will send to Ilona. 10/18/18: Maria will send Dan’s new info. 11/15/18 – Ilona received the info</td>
</tr>
<tr>
<td>Action Item</td>
<td>Who</td>
<td>Date Added</td>
<td>Expected Completion</td>
<td>Actual Completion</td>
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<td>-------------</td>
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</tr>
<tr>
<td>384 Meet with Dan Hickman to get Analyte Codes and then prepare final DRAFT of Micro DW and WW tables. Send to Jennifer for review.</td>
<td>Maria</td>
<td>4/19/18</td>
<td>5/15/18</td>
<td>Still in Progress</td>
</tr>
<tr>
<td>389 Present recommended LAMS updates to Dan Hickman.</td>
<td>Maria</td>
<td>5/17/18</td>
<td>5/20/18</td>
<td>FoPT format subcommittee provided recommendations.</td>
</tr>
<tr>
<td>397 Discuss Vol 3 and 4 implementation with NELAP AC.</td>
<td>Maria</td>
<td>10/18/18</td>
<td>11/15/18</td>
<td>In progress.</td>
</tr>
<tr>
<td>400 Follow-up on subcommittee reports from WET and the FoPT Table Format Subcommittee.</td>
<td>Maria</td>
<td>11/15/18</td>
<td>12/18/18</td>
<td>In Progress – combine with 349.</td>
</tr>
<tr>
<td>410 Review SOPs 4-102 and 7-101 to make sure there are no conflicts in the appeals process.</td>
<td>Eric</td>
<td>2/28/19</td>
<td>TBD</td>
<td>In Progress</td>
</tr>
<tr>
<td>411 Follow-up on two preliminary complaints on Hardness.</td>
<td>Maria</td>
<td>2/28/19</td>
<td>3/20/19</td>
<td>3/21/19: Did talk to lab, but waiting for follow-up. Still working with NELAP AC. Lab did not respond, so this is being closed. They need to file a formal complaint. Complete</td>
</tr>
<tr>
<td>Action Item</td>
<td>Who</td>
<td>Date Added</td>
<td>Expected Completion</td>
<td>Actual Completion</td>
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<tr>
<td>412</td>
<td>Maria</td>
<td>3/21/19</td>
<td>4/17/19</td>
<td></td>
</tr>
<tr>
<td>415</td>
<td>Maria</td>
<td>3/21/19</td>
<td>4/17/19</td>
<td>Complete, but will resend to Carl.</td>
</tr>
<tr>
<td>417</td>
<td>Maria</td>
<td>4/18/19</td>
<td>5/16/19</td>
<td>Pending</td>
</tr>
<tr>
<td>418</td>
<td>Maria</td>
<td>4/18/19</td>
<td>5/16/19</td>
<td></td>
</tr>
<tr>
<td>419</td>
<td>Maria, Shawn</td>
<td>5/16/19</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>420</td>
<td>Ilona</td>
<td>5/16/19</td>
<td>6/19/19</td>
<td></td>
</tr>
<tr>
<td>421</td>
<td>Maria</td>
<td>6/20/19</td>
<td>6/27/19</td>
<td></td>
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<tr>
<td>422</td>
<td>Maria</td>
<td>6/20/19</td>
<td>7/17/19</td>
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<tr>
<td>Action Item</td>
<td>Action</td>
<td>Who</td>
<td>Date Added</td>
<td>Expected Completion</td>
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<tr>
<td>423</td>
<td>Prepare DRAFT equivalency letter to compare 2009 and 2016 to post on website for PT Provider customers.</td>
<td>Maria</td>
<td>7-18-19</td>
<td>TBD</td>
</tr>
<tr>
<td>424</td>
<td>Complete vote on SOP 4-102.</td>
<td>Maria/Ilona</td>
<td>7-18-19</td>
<td>8-7-19</td>
</tr>
<tr>
<td>425</td>
<td>Vote on SOP 4-107 by email.</td>
<td>Maria/Ilona</td>
<td>7-18-19</td>
<td>8-7-19</td>
</tr>
<tr>
<td>426</td>
<td>Get total number of accredited labs from Jerry.</td>
<td>Ilona</td>
<td>8-7-19</td>
<td>9/18/19</td>
</tr>
<tr>
<td>427</td>
<td>Prepare DRAFT of Worksheet 11 for September meeting review.</td>
<td>Maria</td>
<td>8-7-19</td>
<td>9/16/19</td>
</tr>
</tbody>
</table>
## Backburner / Reminders – TNI PT Executive Committee

<table>
<thead>
<tr>
<th>Item</th>
<th>Meeting Reference</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>3/4/10</td>
<td>In Progress</td>
</tr>
<tr>
<td>11</td>
<td>5-19-11</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>6-29-17</td>
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</table>

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</table>

7. Add the Field PT Subcommittee to the limit update SOP during its next update.

11. Evaluate how labs are accredited for analytes that co-elute.

13. Charter needs to be reviewed/updated in November.

18. Shawn noted that PTPEC should have some specific measurements. This should be passed along to the PTP SOP Subcommittee. Nicole noted that we need to determine which items to measure.
The NELAC Institute
www.nelac-institute.org

Agenda
- Review of PTPEC Mission / Purpose
- Review of PTPEC Activities
- PTPA Presentations
  - ANAB, ANSI-ASQ National Accreditation Board – PT Program Update (Matt Sica)
  - A2LA – PT Program Update (Shawn Kassner)
- Committee Business
- Acknowledgments
- Public Comments

Mission
The purpose of the Proficiency Testing Program Executive Committee (PTPEC) is to establish and maintain certain elements of a national PT Program to support TNI’s Accreditation Programs and other TNI activities. Those elements include:
- Fields of Proficiency Testing (FoPT), consisting of analytes, concentrations, matrices, and acceptance limits, that are appropriate for the scope of environmental monitoring performed in the United States
- A listing of PT Provider Accreditors (PTPAs) that are TNI recognized
- A listing of organizations that are accredited by TNI’s recognized PTPAs as competent to provide PT samples to laboratories

PTPEC Meetings
- Conference calls the third Thursday of the month from 1:00-2:30 Eastern
- Face-to-Face with attendee participation at annual Environmental Measurement Symposium and Forum on Environmental Accreditation Conferences

Review of PTPEC Activities
February – August 2019

PTPEC Activities
FoPT Table Updates
Drinking Water (DW) FoPT Table
- Updated footnote to clarify “Cyanide” includes all forms of Cyanide
- Became effective July 1, 2019
PTPEC Activities
2016 TNI Standard Implementation

- Discussed implementation of Volume 3 with PT Providers, PTPAs, and members of NELAP AC
- Approved footnote to be included by PT Providers in PT Reports issued on or after January 31, 2020
  - Footnote to be included until PT Provider is accredited to 2016 TNI Standard

PTPEC Activities
Complaint Resolution Follow-Up

Analyte Breakdown Subcommittee Formed
- Response to issue of potential degradation of 4,4’-DDT into 4,4’-DDD affecting a lab’s PT score
- Subcommittee to investigate and recommend technical solution to dilemma of analyte breakdown for 4,4’-DDT and Endrin
- Status: Historical PT data being sought from PT Providers

PTPEC Activities
Analyte Request Applications (ARAs)

ARA received from TNI Whole Effluent Toxicity (WET) Expert Committee
- Request to collect and evaluate historical PT data for WET testing
- Status: PTPEC voted to not accept ARA
  - As alternative, TNI approved PTPEC acting as intermediary to request data from PT Providers on behalf of WET Expert Committee
  - Maria to talk to Rami re. data fields needed

PTPEC Activities
Standard Operating Procedures

- Approved SOP 4-102 (Dispute Resolution Procedure)
- Approved SOP 4-107 (FoPT Table Management)
- Approved SOP 7-101 (TNI AB Evaluation and Recognition Procedure used by PTPEC and NEFAP EC)
PTPEC Activities
PT Data Request

- Discussed issue of differing definitions of data points vs number of participants in uploads to TNI PT Database
- Voted to approve:
  - **Data Points** = Number of measurements of an analyte reported to PT Provider for the study
  - **Participants** = Number of labs evaluated by PT Provider for the analyte in the study

PTPA Reports

ANAB, ANSI-ASQ National Accreditation Board
PT Program Update (Matt Sica)

A2LA
PT Program Update (Shawn Kassner)

Committee Business

Subcommittee Reports

Analyte Breakdown Subcommittee

- Began preliminary review of PT data collected for prior investigation into 4,4'-DDT degradation
- Raised issue of differing definitions of data points vs number of participants in PT data uploads; resolved by PTPEC
- Additional historical PT data will be requested based on resolution to data points/participants issue

Chemistry FoPT Subcommittee

- Working with Radiochemistry Expert Committee regarding alternate approach to updating FoPTs – next meeting September 2019
- Assigned to review ARA for Isomeric Compounds
- Assigned to investigate potential misinterpretation of Footnotes 5 and 6 regarding fixed limits in SCM FoPT Table
Microbiology FoPT Subcommittee

- Completed review of Analyte Request Application (ARA) for Most Probable Number (MPN) FoPTs
- Recommended creating new FoPTs to segregate Multiple-Tube and Multiple-Well data
- PTPEC approved recommendation
- NELAP AC did not accept; ultimate outcome to be determined

FoPT Table Format Subcommittee

- Working with Whole Effluent Toxicity Testing Expert Committee to obtain guidance on aligning WETT FoPT table with LAMS

SOP Subcommittee

<table>
<thead>
<tr>
<th>SOP Title</th>
<th>SOP #</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation and Calculation of Acceptance Limits for Chemical, Radiochemical, and Microbiological Components of Proficiency Tests</td>
<td>4-101</td>
<td>Collecting comments</td>
</tr>
<tr>
<td>TNI PT Program Complaint, Appeal, and Dispute Resolution Procedure</td>
<td>4-102</td>
<td>To be sent to Policy Committee</td>
</tr>
<tr>
<td>Evaluating PT Provider Accreditors</td>
<td>4-104</td>
<td>Retired; replaced by SOP 7-101</td>
</tr>
<tr>
<td>PT Program Executive Committee Voting Process</td>
<td>4-105</td>
<td>Sent to Policy Committee</td>
</tr>
<tr>
<td>FoPT Table Management</td>
<td>4-107</td>
<td>To be sent to Policy Committee</td>
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</tbody>
</table>

PTPEC Plans

- Complete update of FoPT Table Format:
  - Add CAS numbers to all FoPT tables
  - Update Analyte and Method Codes for consistency with TNI’s Laboratory Accreditation Management System (LAMS)

PTPEC Plans

- Create/publish guidance/technical solution to the dilemma of analyte breakdown in PT samples
- Complete processing of ARA for isomeric compounds
- Update Radiochemistry and WETT FoPT Tables
  - Technical criteria
  - Format
- Update SOPs
  - 4-101 – PT acceptance limit calculations
  - Others to support Volumes 3 and 4 of 2016 TNI Standard
- Begin evaluation of PTPAs
**New Business: Strategic Planning**

**Acknowledgments**

**2019 PTPEC Membership**
- Maria Friedman, Chair – California ELAP
- Fred Anderson – Advanced Analytical Solutions, LLC
- Jennifer Duhon – MilliporeSigma
- Rachel Ellis – New Jersey DEP
- Patrick Garnity – Kentucky DEP
- Scott Haas – Environmental Testing, Inc.
- Michella Karapondo – US EPA
- Dr. Carl Kircher – Florida Department of Health
- Dixie Marlin – Marlin Quality Management, LLC
- Jennifer Mullins – Upper Occoquan Service Authority
- Matt Sica – ANAB, ANSI-ASQ National Accreditation Board
- Eric Smith – ALS Environmental
- Dr. Andy Valkenburg – QASE Inc. / Perry Johnson Laboratory Accreditation, Inc.

**Subcommittee Chairs**
- Analyte Breakdown: Dr. Andy Valkenburg
- Chemistry FoPT: Dr. Carl Kircher
- FoPT Table Format: Craig Huff
- Microbiology FoPT: Jennifer Best
- SOP: Eric Smith

**TNI Support**
- Program Administrator: Ilona Taunton
- LAMS Administrator: Dan Hickman
- IT Administrator: William Daystrom

**Public Comments and Questions**
PT Provider Status

• ERA – Accredited status, Renewal assessment 09/30/2020
• Phenova – Accredited status, Renewal assessment 09/30/2020
• New York State Department of Health Wadsworth Center – Accredited status, Renewal assessment 11/30/2020
• Advanced Analytical – Accredited status, Renewal assessment 01/31/2020
• No complaints for any provider.

Criteria to Determine

• Data was reviewed for the following criteria
  § Data flagged that contain n < 20
  § Multiple providers with the same analyte > 10% fail rate
  § Identified analytes contain have on average 52% of the data where n < 20
  § Historically repetitive.

Data Challenges

• All PTPs have small data sets across analytes/studies types
• All small data sets with high failure rates due to:
  § Few laboratory failures
  § Multiple methods reported same data pts

Data Challenges

• What do these data sets represent?
  § 12 months of data were analyzed.
  § Each analyte is a study summary.
  § 42 analytes found to have failure rates > 10%.
  § 957 analytes total across all of PTP studies.
  § Represents ~ 4.00% of the PTP study data.
  § Historically, 1% - 5% of the data PTPs report.
### Soil Analytes

<table>
<thead>
<tr>
<th>Analyte Name</th>
<th>Avg Failure Rate</th>
<th>Total # Studies</th>
<th>Studies N&lt;20</th>
<th>% Studies &lt; 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Dichlorobenzene</td>
<td>10.2%</td>
<td>6</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>2,4-D</td>
<td>10.3%</td>
<td>10</td>
<td>6</td>
<td>60%</td>
</tr>
<tr>
<td>Aroclor 1221</td>
<td>11.4%</td>
<td>4</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

### WP Inorganics

<table>
<thead>
<tr>
<th>Analyte Name</th>
<th>Avg Failure Rate</th>
<th>Total # Studies</th>
<th>Studies N&lt;20</th>
<th>% Studies &lt; 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acidity, as CaCO3</td>
<td>13.7%</td>
<td>9</td>
<td>7</td>
<td>78%</td>
</tr>
<tr>
<td>Volatile solids</td>
<td>10.9%</td>
<td>23</td>
<td>12</td>
<td>52%</td>
</tr>
<tr>
<td>n-Hexane Extractable Material (O and G)</td>
<td>18.2%</td>
<td>57</td>
<td>32</td>
<td>56%</td>
</tr>
<tr>
<td>Orthophosphate as P</td>
<td>10.4%</td>
<td>28</td>
<td>6</td>
<td>21%</td>
</tr>
<tr>
<td>Total Solids</td>
<td>10.7%</td>
<td>53</td>
<td>27</td>
<td>51%</td>
</tr>
<tr>
<td>Total Dissolved Solids at 380 deg C</td>
<td>10.3%</td>
<td>51</td>
<td>24</td>
<td>47%</td>
</tr>
</tbody>
</table>

### WP Organics

<table>
<thead>
<tr>
<th>Analyte Name</th>
<th>Avg Failure Rate</th>
<th>Total # Studies</th>
<th>Studies N&lt;20</th>
<th>% Studies &lt; 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>12.3%</td>
<td>26</td>
<td>15</td>
<td>58%</td>
</tr>
<tr>
<td>Benzo(a)anthracene</td>
<td>10.5%</td>
<td>12</td>
<td>5</td>
<td>42%</td>
</tr>
<tr>
<td>Aroclor 1016</td>
<td>16.1%</td>
<td>7</td>
<td>3</td>
<td>43%</td>
</tr>
<tr>
<td>Aroclor 1232</td>
<td>15.1%</td>
<td>3</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

### WS Inorganics

<table>
<thead>
<tr>
<th>Analyte Name</th>
<th>Avg Failure Rate</th>
<th>Total # Studies</th>
<th>Studies N&lt;20</th>
<th>% Studies &lt; 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromide</td>
<td>10.9%</td>
<td>19</td>
<td>11</td>
<td>58%</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>10.2%</td>
<td>10</td>
<td>8</td>
<td>80%</td>
</tr>
<tr>
<td>Cyanide</td>
<td>11.2%</td>
<td>16</td>
<td>8</td>
<td>50%</td>
</tr>
<tr>
<td>Dissolved Organic Carbon (DOC)</td>
<td>11.6%</td>
<td>16</td>
<td>10</td>
<td>63%</td>
</tr>
<tr>
<td>Surfactants - MBAS</td>
<td>17.2%</td>
<td>10</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>Fluoride</td>
<td>11.5%</td>
<td>19</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

### WS VOC Organics

<table>
<thead>
<tr>
<th>Analyte Name</th>
<th>Avg Failure Rate</th>
<th>Total # Studies</th>
<th>Studies N&lt;20</th>
<th>% Studies &lt; 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromochloromethane</td>
<td>10.5%</td>
<td>16</td>
<td>7</td>
<td>43%</td>
</tr>
<tr>
<td>Chloroform</td>
<td>13.1%</td>
<td>8</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Chloroform 132</td>
<td>10.3%</td>
<td>18</td>
<td>5</td>
<td>28%</td>
</tr>
<tr>
<td>1,1-Dichloropropene</td>
<td>12.8%</td>
<td>14</td>
<td>5</td>
<td>36%</td>
</tr>
<tr>
<td>Hexachlordibutadiene</td>
<td>25.5%</td>
<td>10</td>
<td>7</td>
<td>44%</td>
</tr>
</tbody>
</table>

### WS SVOC Organics

<table>
<thead>
<tr>
<th>Analyte Name</th>
<th>Avg Failure Rate</th>
<th>Total # Studies</th>
<th>Studies N&lt;20</th>
<th>% Studies &lt; 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexachlorocyclopentadiene</td>
<td>11.0%</td>
<td>17</td>
<td>13</td>
<td>76%</td>
</tr>
<tr>
<td>Aldrin</td>
<td>12.2%</td>
<td>15</td>
<td>11</td>
<td>73%</td>
</tr>
<tr>
<td>Endrin</td>
<td>13.2%</td>
<td>17</td>
<td>13</td>
<td>76%</td>
</tr>
<tr>
<td>Methoxychlor</td>
<td>10.1%</td>
<td>18</td>
<td>14</td>
<td>78%</td>
</tr>
<tr>
<td>Metribuzin</td>
<td>13.2%</td>
<td>15</td>
<td>14</td>
<td>93%</td>
</tr>
<tr>
<td>Glyphosate</td>
<td>19.0%</td>
<td>14</td>
<td>13</td>
<td>93%</td>
</tr>
<tr>
<td>2,3,7,8-Tetrachlorodibenzoepin</td>
<td>11.9%</td>
<td>6</td>
<td>6</td>
<td>100%</td>
</tr>
</tbody>
</table>
Data Conclusions

- ~ 70% of the analytes consist of small data sets with a probable biases.
- All analytes have been presented historically as fail rates > 10%.
- No Issues with:
  - PT samples
  - Verification, homogeneity, stability data
- SOP Subcommittee considering adding this analysis as a trigger for FoPT review.

Thank You!

- Our customers, the A2LA accredited proficiency testing providers.
- Our staff, assessors, and the PTPEC and PTEC that support us in the continuous improvement of our accreditation program.

Questions?

Questions?

Shawn Kassner
skassner@neptuneinc.org

Thanks!
ANAB TNI PTP Review
August 2019

Non-governmental organization providing accreditation and training services
Ensuring safety and quality of goods and services
Subsidiary of American National Standards Institute (ANSI)

LABORATORY-RELATED
- Laboratories: ISO/IEC 17025
- Inspection Bodies: ISO/IEC 17020
- RM Producers: ISO/IEC 17025
- PT Providers: ISO/IEC 17050
- Product Certifiers: ISO/17065

FORENSICS
- Forensic Laboratories: ISO/IEC 17025
- Forensic Agencies: ISO/IEC 17020
- Training:

MANAGEMENT SYSTEMS
- Certification Bodies: ISO/IEC 17021
- Management System Certification Bodies:
  - ISO 9001 (QMS)
  - ISO 14001 (EMS)
  - ISO 22001 (Food)
- Training:

PT Provider Assessment Update

- Absolute Standards, Inc: Reassessment Activity
  - Conducted February 2019
- NSI Lab Solutions, Inc: Surveillance Activity
  - Conducted July 2019
- Sigma Aldrich RTC: Surveillance Activity
  - Conducted June 2019

Report of PTP Complaints to PTPA
- None

Review of Analytes with Failure Rates of >10%
- Reviewed all analytes:
  - DW
  - NPW
  - SCM
**FoPT Tables**

- Effective tables found on TNI website
- DW FoPT (2019_07_01)
- NPW FoPT (2017_07_24)
- SCM FoPT (2017_07_24)

No additional considerations due to FoPT changes

**Data Selection Criteria**

- Analytes with one or more failure in a 6-month period
  - January through June 2019
  - One or multiple PTPs
  - Fail rates >10%
  - Number of data points >20

**Data Analysis**

**Reviewed**

- Study type/analyte combination
- Analytes of concern
- Historical study data (18 months)

**Data Considerations**

- Only 6 months of data analyzed
  - Rolling 12-18 months may provide more depth
  - Criteria N>20
  - Frequency of studies
    - Quarterly studies for 2 out of 3 ANAB-accredited PTPs
  - Reporting issue
    - No insight when one lab reports multiple methods and fails

**Data Issues**

1. Metals (SCM) pass rate less than 90% for entire study
   - 15/18 analytes
   - Requested investigation by the provider
   - Blunder included in analysis

2. Invalidated Study
   - Pooled mean for Total Coliform, Fecal Coliform and E. coli exceeded upper limit of 200cfu or mpn per 100mL
   - Replacement PT round opened

**Data Analysis**

- Study type
- Analyte combos
- Fail rate >10%
- N>20

- Total: 343
- N: 54
Further Review

- WPChem Iron
- WPChem TSS
- WPChem TDS
- WPChem TS
- WPChem Turbidity

Multiple studies

- WSChem Fluoride

One study

<table>
<thead>
<tr>
<th>Study Type/Analyte</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPChem – Iron</td>
<td>6/8 studies N&lt;20 1 study</td>
<td>3/8 studies N&lt;20 1 study</td>
</tr>
<tr>
<td>WPChem – TSS</td>
<td>5/8 studies N&lt;20 1 study</td>
<td>6/8 studies N&lt;20 1 study</td>
</tr>
<tr>
<td>WPChem – TDS</td>
<td>3/8 studies N&lt;20 1 study</td>
<td>8/8 studies N&lt;20 1 study</td>
</tr>
<tr>
<td>WPChem – TS</td>
<td>4/8 studies N&lt;20 1 study</td>
<td>6/8 studies N&lt;20 1 study</td>
</tr>
<tr>
<td>WPChem – Turbidity</td>
<td>4/8 studies N&lt;20 1 study</td>
<td>6/8 studies N&lt;20 1 study</td>
</tr>
</tbody>
</table>

WPChem – Total Phosphorus

- WPChem– Total Phosphorus

Multiple studies

- WSChem Fluoride

18 months

<table>
<thead>
<tr>
<th>Study Type/Analyte</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>WSChem – Fluoride</td>
<td>3/9 studies N&lt;20, 2 studies</td>
<td>6/9 studies N&lt;20, 2 studies</td>
</tr>
<tr>
<td>WPChem – Total Phosphorus</td>
<td>4/8 studies N&lt;20, 1 study</td>
<td>3/8 studies N&lt;20, 1 study</td>
</tr>
</tbody>
</table>

WSChem – Fluoride

18 months

<table>
<thead>
<tr>
<th>Study Type/Analyte</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>WSChem – Fluoride</td>
<td>3/9 studies N&lt;20, 2 studies</td>
<td>6/9 studies N&lt;20, 2 studies</td>
</tr>
<tr>
<td>WPChem – Total Phosphorus</td>
<td>4/8 studies N&lt;20, 1 study</td>
<td>3/8 studies N&lt;20, 1 study</td>
</tr>
</tbody>
</table>
Summary

Fail rates consistent year over year

No appreciable trends noted

Contact Information

Melanie Ross
Training Products Specialist
ANSI National Accreditation Board (ANAB)
Direct: 414-501-5345 | Main: 414-501-5494
mross@anab.org
www.anab.org
Proficiency Testing (PT) Program

Name of person(s) filling out this assessment: Maria Friedman, Proficiency Testing Program Executive Committee (PTPEC) Chair
Ilona Taunton, Program Administrator

Date:

Description of program service:

- Oversight and infrastructure for single-blind Proficiency Testing samples issued to accredited environmental testing laboratories, as used to determine laboratory accreditation status.

- The purpose of the Proficiency Testing Program Executive Committee (PTPEC) is to establish and maintain certain elements of a national PT Program to support TNI’s Accreditation Programs and other TNI activities. Those elements include:
  - Fields of Proficiency Testing (FoPT), consisting of analytes, concentrations, matrices, and acceptance limits that are appropriate for the scope of environmental monitoring performed in the United States.
  - A listing of PT Provider Accreditors (PTPAs) that are TNI recognized and approved.
  - A listing of organizations that are accredited by TNI’s recognized PT Providers as competent to provide PT samples to laboratories and Field Sampling and Measurement Organizations (FSMOs).

Units of service/number of people served including demographic information (if applicable)

- More than 3000 accredited environmental testing laboratories and FSMOs, 7 Proficiency Testing Providers, and 2 PT Provider Accreditors (PTPAs) (nationwide in the United States).

What is the need in the community that this program exists to meet?

- Assurance that single-blind proficiency samples meet applicable TNI Standards for environmental monitoring.
- Assurance that PT samples are formulated and scored to evaluate environmental laboratory and FSMO performance.

Who is the target audience that this program serves to reach?

- TNI-recognized Accreditation Bodies (NELAP, NEFAP, and NGAB). Instead of being TNI-centric, use general terms; e.g., use the term regulatory bodies.
- Accredited / certified environmental testing laboratories and FSMOs.
- PT Providers.
- PTPAs.
- Federal agencies (e.g., EPA).
- Non-NELAP states.

What impact does this program currently have, or intend to have, on addressing the need articulated above?
• Implement all policies and procedures necessary for the operation and continual improvement of a national PT Program – including FoPTs for various matrices and accreditation / certification programs.
  – Periodically evaluate the effectiveness of the PT Program and the FoPTs. File reports.
  – Continually evaluate and establish success measures and goals to target opportunities for improvement. Internal audits.

• Implement an oversight program that ensures PT Providers are competent to operate environmental PT programs.
  – Receive and evaluate PTPA applications.
  – Recognize organizations that meet the requirements of the TNI Standards to be designated as PTPAs.

• Ensure that FoPTs are appropriate for their intended use.
  – Collect and review PT data for the purpose of creating and maintaining FoPT tables for various matrices and programs.

What is the outcome(s) of this program’s work?

• Review and endorse approval of Recognition Committee recommendations applications from applicant PTPAs to become recognized.

• Periodic review of all PTPAs to ensure their conformance to the requirements established by the TNI standard and PTPEC policies. During evaluation

• Adoption and implementation of consensus standards.

• Support the PT Expert Committee in addressing Standard Interpretation Requests (SIRs), as needed.

• Develop and update FoPT Tables, as needed.
  – Adopt policies for the implementation of the program

  – Develop and Adopt TNI policies and procedures for use within the program.

  – Respond to complaints related to the program.

  – Training programs relevant to the needs of the stakeholder community.

  – Evaluation of the effectiveness of the PT program.

Measures of Success check all against charter

What evidence do you have to show that this program is having the impact you want it to have? How do we know we are being successful?

• Effective resolution of complaints regarding the PT program.

• Procedures are adequate for scoring, producing, and validating PT proficiency samples.

• Availability of organizations to evaluate and accredit PT Providers.

• Effective gauge of laboratory quality based on acceptable performance of PT samples.

• Addition of fopts

• Continued recognition of ptpas

• Adequate resources to supply pts to community

• Manage stakeholders

What are the greatest strengths of this program?

• PT Providers willing to comply voluntarily with the relevant standards.
• Involvement of stakeholders willing to serve on the PTPEC and relevant subcommittees.
• TNI support (staff, website, WebEx, etc.).
• Earned respect and confidence from stakeholders.
• Consistent product as delivered by two PTPA reports
• Involvement of stakeholders

What are the greatest weaknesses of this program?

• FoPT tables TNI makes available for are free to the public at large and therefore do not cannot be used to generate revenue.
• Volunteer member with significant time constraints.
• Unclear processes for stakeholder approvals.
• Unclear mission

What are the trends in the environment—political, social, economic, technological, demographic, legal forces—that are or will be impacting this program in the future: trends either potentially moving the program forward (opportunities) or holding it back (threats)?

• The increasing focus on Per- and Polyfluoroalkyl Substances (PFAS), which are not currently included in FoPT tables, may lead the PTPEC to work toward adding PFAS to FoPTs
• Shifting priorities from Federal government can affect ability of EPA to support PT initiatives
• The emergence of Non-Governmental Accreditation Bodies (NGABs) that provide laboratory accreditation to the TNI Standard could provide an opportunity for the PT Program to be extended to states that have not joined TNI.
• Likewise, NGABs could also diminish the need for the PT Program due to their offering accreditation for multiple, sometimes overlapping, standards (e.g., ISO 17011, ISO 17025, ISO 17043, AIHA, and TNI). States could choose to recognize ISO accreditation instead of or in addition to TNI.

How could we improve the cost effectiveness of this program?

• Continue to recruit competent volunteers for evaluation of PTPAs.
• Collaborate with NEFAP on the combined evaluation of PTPAs per SOP 7-101.

How could we improve the quality of this program? How could we improve our ability to deliver this product/provide this service? If we were to reinvent this program, what changes would we make in how the service/product is delivered?

• A documented and streamlined procedure for the transfer of data from PT Providers and PTPAs to the PTPEC is needed, for the purposes of evaluation of FoPT Table criteria and to address complaints. It shouldn’t be a difficult process to obtain recent PT Study data from multiple PT Providers and PTPAs.
• More timely update of FoPT tables.

How might we better market this program (i.e., increase the public’s awareness of this program)?

• Participation in EPA’s DMR-QA Program is required in at least 36 states. That program utilizes PT Providers accredited by TNI-approved PTPAs, and FoPT Tables approved by the PTPEC and by TNI ABs, and yet the EPA’s DMR-QA website does not mention TNI at all, but merely