

## **TNI PT Program Executive Committee Meeting Summary**

**May 21, 2015**

### 1. Roll call and approval of minutes:

Chair, Maria Friedman, called the TNI PT Program Executive Committee (PTPEC) meeting to order on May 21, 2015, at 1:03 PM Eastern. Attendance is recorded in Attachment A – there were 7 Executive Committee members present. Associate Members present: Craig Huff, Gil Dichter, Jeff Lowry, Mike Blades, Jennifer Best (until 1:35pm), Carl Kircher, Michella Karapondo, and Andy Lincoff.

Maria reviewed the handouts everyone should have received for today's meeting.

The April 16, 2015 minutes were reviewed. A motion was made by Susan to approve the April 16, 2015 minutes as sent by email. Joe seconded the motion and it was unanimously approved.

### 2. Draft Response to MPN Analyte Request Questions from NELAP AC

Maria reminded everyone that the Microbiology FoPT Subcommittee was going to meet and discuss the questions Maria received from Aaren Alger (Chair, NELAP AC). She received the response in Attachment D from the Subcommittee.

PT Providers have not been contacted by the Subcommittee to give data at this point. The PTPEC wants the NELAP AC input and agreement before the Subcommittee does this.

Jennifer noted that Question 3 was something the previous version of the Subcommittee worked on and they determined there would be no controls set on the type of strains PT Providers could use. She noted this in her response to the question and included the minutes from the PTPEC meeting where this was discussed.

Maria noted that the pictures in the Attachment of the response may need to be clearer before the response is sent. Jennifer will send the originals to Maria.

Susan suggested including the San Antonio meeting minutes instead of the ones in the response. She thinks this is the meeting the strains were discussed. Susan sent some information to Jennifer and she will take a look at it to determine what the best attachment is. Susan noted the minutes on April 17, 2014 include the details Jennifer is looking for.

Maria noted that the response to Aaren will need to be approved by the PTPEC before it is sent.

A motion was made by Matt to accept the response with the additions to be made by Jennifer and send the response to the NELAP AC. The motion was seconded by Andy and unanimously approved.

Maria will help to pull the needed minutes together and then send the response to the NELAP AC.

Jennifer noted the Subcommittee approved its first set of minutes and they are ready to post. She will send them to Ilona.

### 3. Draft Request for NELAP AC to Provide Input on FoPT Table Format Subcommittee Scope

Maria responded to Cathy Westerman's email that was asking for information about the work being done by FoPT Table Format Subcommittee. They appeared to want justification for the work being done. In Maria's response she noted:

*At this point, with so much time having passed since this initiative was started, and with Susan Wyatt no longer on the AC, the subcommittee is in a holding pattern until it can be confirmed that the tasks under their charter are still considered valid, relevant, and needed. I will draft a separate e-mail to formally request the AC to provide confirmation on this matter and others that the PTPEC is currently working on to ensure that we are all on the same page; will send that request to Aaren.*

Maria's Draft letter to Aaren can be found in Attachment E. Maria asked the PTPEC to review the letter and let her know if there is anything missing.

Craig wanted to note the MDL's listed under 524.3 are from the full scan mode. It was pointed out that only SIM is allowed – so he will give Maria new MDLs.

Jeff noted that Naphthalene by 525.2 is not regulated. It can't be used for regulated Drinking Water. Craig will make this change too.

Craig will provide Maria with the corrections and then she will distribute the letter for approval by email vote.

### 4. Chair Update

#### PT Expert VDS

Voting Draft Standards (VDSs) for Vol 3 and 4 have been posted for vote through June 19, 2015. Maria asked everyone to review and comment on the Standards. These Standards will affect this committee.

Jeff and Andy would like the committee to review and formulate concerns together. It was suggested that the committee could meet a week earlier or set-up a separate meeting. Maria thought working on it through email might work.

Carl noted that there is language in Volume 3 that belongs in the lab PT standard. Susan noted that Volume 3 still states the PTPA assessments are every 2 years. Matt corrected this issue – Volume 3 is PT Provider assessments and they are every 2 years.

The decision was to start the review process by email and then select a date (tentatively 6/11/15) to meet. Ilona will also obtain a Word version of the two Standards to make it easier for people to put together their comments. Maria will send her comments and start the email conversation.

#### 2,2'-oxybis (1-chloropropane) Analyte Name Correction

Maria talked to Jerry and said that no one has notified the PT Providers of the change. He also noted the AC has not been notified, but he will contact Lynn Bradley to do this. Maria asked Ilona to find out what Lynn is sending, so she can help Draft a letter of notification to the PT Providers.

Jeff Lowry noted that the Chemistry FoPT Subcommittee would like to know how the update needs to be listed on the table. Jeff suggested that the new number is 4659 and the convention for other like compounds is to name it Bis(2-chloro-1-methylethyl) ether. Ilona and Lynn need to know this before they put their letters together. Maria will find out and will send an email to the Chemistry FoPT Subcommittee and Lynn and Ilona.

Jeff also noted that PT Providers want to know what date this needs to be done. This needs to be included in the letter to PT Providers.

Andy also thinks it would be appropriate to ask the PT Providers if they can highlight the change in their first set of instructions that include this change.

PT Providers do need to know when the ABs plan to update their databases. This change needs to be coordinated with the ABs through Lynn's notification.

A notification needs to be placed in the TNI newsletter and NEWS item needs to be written for the website. Ilona reminded everyone that FoPT updates are automatically emailed out.

The PTPEC will look at this after Maria finds out what needs to be put on the FoPT table. It is clear that notifications need to be coordinated.

## 5. PTPEC Membership

Gil Dichter introduced himself. He is the Technical Support Manager for Water at IDEXX. He has lots of experience working with TNI committees and other industry committees. His resume was distributed to the rest of the committee. He excused himself from the call for further discussion.

Ilona noted that he would be an "Other" and the PTPEC composition would be: 5 – Lab/FSMO, 5 – Other, and 3 – AB.

A motion was made by Matt to add Gill to the PTPEC. The motion was seconded by Justin.

The vote was started and will be finished by email.

Votes:

Susan – For  
Joe – For  
Dixie – For  
Andy – For  
Maria – For  
Matt – For  
Justin – For

*Addition (6/1/15):*

*Eric (email) – For (6/1/15)*  
*Patrick (email) – For (6/1/15)*  
*Nicole (email) – For (6/1/15)*  
*Ron (email) – For (6/1/15)*

*The motion was passed. Ilona will forward his information to the Chair of the TNI Board of Directors.*

#### 4. Subcommittee Updates

##### Chemistry FoPT Subcommittee:

The Subcommittee is still working on Solid and Chemical Materials. They are moving on to Chlorinated Aromatics.

##### WET FoPT Subcommittee:

Maria has been in communication with Rami (Chair, WET FoPT Subcommittee). She sent him the information on the responses from the DMR-QA contacts on how they would like their PTs done (based on permits or be standardized).

He would like to table Footnote 3 until the subcommittee has had a chance to meet. He wants it tabled until the new Expert committee has a chance to provide input. Maria will

check on timing. She will give him until the end of July 2015 to come back to the PTPEC.

Jeff asked if it will be complete in time for next DMR-QA study around March 2016. Maria was hopeful that this is possible. Ilona reminded the group that they usually give a 6 month implementation time frame, so they would need to be ready by September 2015.

Jeff would like to have the notes the committee originally prepared available to the labs and PT Providers. This is already an action item on the table (Action Item #271).

SOP Subcommittee:

No update.

FoPT Format Subcommittee:

Andy noted the committee is waiting for input to move forward. They will not be meeting until they have this input. Craig sent an email to Maria.

6. New Business

- None.

7. Action Items

- See Attachment B.

8. Next Meeting

The next PTPEC teleconference will be held on 6-18-2015 at 1:00pm EDT.

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

The meeting was adjourned at 2:19 pm EST. Susan motioned, Andy seconded. Unanimously approved.

## Attachment A

### Participants

#### TNI

### Proficiency Testing Program Executive Committee

| <b>Members</b>  | <b>Affiliation</b>                                 | <b>Contact Information</b>   |
|---|--|--|
| Maria Friedman (2014) -<br><b>Present</b>                 | TestAmerica  | 949-260-3201<br><a href="mailto:maria.friedman@testamericainc.com">maria.friedman@testamericainc.com</a> |
| Ilona Taunton,<br>Program Administrator<br><b>Present</b> | TNI  | 828-712-9242<br><a href="mailto:tauntoni@msn.com">tauntoni@msn.com</a>                                   |
| Eric Smith (2010)<br><b>Absent</b>                        | ALS Environmental                                  | 904-394-4415<br><a href="mailto:eric.smith@alsglobal.com">eric.smith@alsglobal.com</a>                   |
| Justin Brown (2011)<br><b>Present</b>                     | Environmental Monitoring<br>and Technologies, Inc. | 847-875-2271<br><a href="mailto:jbrown@emt.com">jbrown@emt.com</a>                                       |
| Susan Butts (2012)<br><b>Present</b>                      | South Carolina DHEC                                | (803)896-0978<br><a href="mailto:buttsse@dhec.sc.gov">buttsse@dhec.sc.gov</a>                            |
| Patrick Brumfield (2012)<br><b>Absent</b>                 | Sigma-Aldrich RTC                                  | (307) 721-5488<br><a href="mailto:Pat.Brumfield@sial.com">Pat.Brumfield@sial.com</a>                     |
| Nicole Cairns (2012)<br><b>Absent</b>                     | NY State DOH                                       | (518) 473-0323<br><a href="mailto:nicole.cairns@health.ny.gov">nicole.cairns@health.ny.gov</a>           |
| Joe Pardue (2011)<br><b>Present</b>                       | Pro2Serve, Inc.                                    | 423-337-3121<br><a href="mailto:joe_pardue@charter.net">joe_pardue@charter.net</a>                       |
| Dr. Andy Valkenburg (2011)<br><b>Present</b>              | Energy Laboratories, Inc.                          | 406-869-6254<br><a href="mailto:avalkenburg@energylab.com">avalkenburg@energylab.com</a>                 |
| Ron Houck<br><b>Absent</b>                                | PA DEP   | <a href="mailto:rhouck@pa.gov">rhouck@pa.gov</a>   |
| Matt Sica<br><b>Present</b>                               | ANAB, ANSI-ASQ National<br>Accreditation Board     | <a href="mailto:msica@anab.org">msica@anab.org</a>   |
| Dixie Marlin (2015)<br><b>Present</b>                     | Environmental Science<br>Corporation               | DMarlin@esclabsciences.com   |

## Attachment B

### Action Items – TNI PT Executive Committee

|     | Action Item   | Who            | Expected Completion | Actual Completion  |
|-----|---|----------------|---------------------|--|
| 185 | Send updated DW table with Footnote 15 to NELAP AC for approval.  | Stacie         | 4/1/12              | Stacie submitted this. Need to confirm approval.                     |
| 214 | Update Tin, Total Xylene and Total Cyanide on FoPT tables and submit for approval.  | Carl<br>Stacie | Next Meeting        | In Progress  |
| 233 | Review complaint process.   | Maria<br>Ilona | 5/14/14             | In Progress  |
| 246 | Rewrite request to the Chemistry FoPT subcommittee and send to Ilona for distribution.  | Maria          | 10/6/14             |  |
| 249 | Meet with PTPAs to discuss issues surrounding receiving data for FoPT Limit Updates and complaints. Determine if issue exists and whether subcommittee is needed to address this issue. | Maria          | 11/13/14            | In progress.   |
| 251 | Follow-up with Rami to provide support to solve footnote issue on WET FoPT Table.   | Maria          | 10/30/14            | Still in Progress  |
| 253 | Check with EPA attorney on requirement that Vinyl Chloride cannot be “0”.   | Michella       | 12/15/14            |  |
| 254 | Review PT SOP comments by the Policy Committee and add to agenda as appropriate.  | Maria<br>Ilona | 12/15/14            | Waiting for comments.  |
| 257 | Email to SOP Subcommittee regarding clarification on how limit updates due to issues should be addressed.   | Maria          | 12/12/14            | Maria prepared it, but is waiting for a chair for this subcommittee. |
| 260 | Amend FoPT Table Format Subcommittee Scope and distribute for review.   | Maria          | 12/12/14            |  |

|     | <b>Action Item</b>  | <b>Who</b>                  | <b>Expected Completion</b> | <b>Actual Completion</b>                         |
|-----|---|-----------------------------|----------------------------|--|
| 263 | Look into new website design and see if there is an FAQ section that the committee can use to summarize some of their processes – complaint, addition/deletion of analyses to FoPT tables, etc. Talk to IT Committee. | Maria                       | 12/12/14                   |  |
| 264 | Update Complaint SOP to reflect Standard requirement that PTPA be contacted.  | TBD                         | TBD                        |  |
| 268 | Prepare DRAFT example template to request exceptions to running PTs.  | Jeff Lowry<br>Shawn Kassner | 3/19/15                    | Next meeting-<br>4/16/15                         |
| 269 | Prepare DRAFT response to SIRs after meeting with NELAP AC.   | Maria                       | TBD                        |  |
| 270 | Share DMR QA letter with WET FoPT Subcommittee and see if footnote is still needed.   | Maria                       | 3/19/15                    | Shared –<br>waiting for<br>response.             |
| 271 | Provide list of replicates and volumes from WET Subcommittee to PT Providers.   | Maria                       | 3/19/15                    |  |
| 274 | Notify NELAP AC about analyte requests.   | Maria                       | 3/19/15                    | Complete for<br>2. Still<br>working on<br>Micro. |
| 275 | Submit letter explaining need to include NPW with MPN analyte request.  | Carl                        | 3/19/15                    |  |
| 276 | Check with Jerry on effective date for LAMS change.   | Maria                       | 5-21-15                    | Complete   |
| 277 | Respond to Aaren's questions.   | Micro FoPT<br>Subcommittee  | 6-18-15                    | Complete   |
| 278 | Prepare request for NELAP AC to address the need for Technologies/ Methods on the FoPT tables. Send   | Maria, Craig,<br>Eric       | 5-21-15                    | Complete   |



|     | <b>Action Item</b>   | <b>Who</b>     | <b>Expected Completion</b> | <b>Actual Completion</b> |
|-----|--|----------------|----------------------------|--------------------------|
|     | Draft to PTPEC before distribution to NELAP AC.  |                |                            |                          |
| 279 | Add appropriate minutes to response to Aaren's questions and send to Aaren.                              | Maria          | 6-18-15                    |                          |
| 280 | Make corrections to letter to NELAP AC regarding the FoPT table format and send to PTPEC for email vote. | Craig<br>Maria | 6-18-15                    |                          |
| 281 | Start email conversation about comments on V3 and V4 VDS.  | Maria          | 5-28-15                    |                          |
| 282 | Find out exact name for nomenclature change to FoPT tables.  | Maria          | 6-5-15                     |                          |
| 283 | Finish PTPEC membership vote by email.   | Ilona          | 6-5-15                     |                          |
| 284 |  |                |                            |                          |
| 285 |  |                |                            |                          |
|     |  |                |                            |                          |

## Attachment C

### Backburner / Reminders – TNI PT Executive Committee

|    | Item   | Meeting Reference | Comments     |
|----|--|-------------------|--------------|
| 7  | Add the Field PT Subcommittee to the limit update SOP during its next update.  | 3/4/10            |              |
| 11 | Evaluate how labs are accredited for analytes that co-elute.   | 5-19-11           |              |
| 12 | PTPA Evaluation Checklist needs to be updated prior to next round of evaluations.  | 8-6-13            |              |
| 13 | Charter needs to be updated in November.   | Ongoing           |              |
| 14 | <p>When new limits are established for the FoPTs, what is considered to be a statistically significant change to the old rates? At what point is it appropriate to question new limits? This lends to the TSS discussion a few months ago.</p> <p>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.</p> <p>3/20/14: Eric noted that there are some logistics with doing a 6 month review. This may need to be a separate committee so it does not hamper the progress of the Chemistry FoPT Subcommittee.</p> | 2/20/14           |              |
| 15 | Correct FoPT tables for 2,2'-oxybis(1-chloropropane) once LAMS is updated. It could take 3-6 months.   | 2-3-15            | In progress. |
|    |  |                   |              |
|    |  |                   |              |

Attachment D:

**Response to Aaren Alger from the AC**  
**RE: request for consideration of FOPT table changes**

**1. Question: “Why would “sample volume” have anything to do with the performance of the test?”**

**Micro FoPT subcommittee response:** This question appears to have resulted from terminology used in the FOPT Analyte Request Application (ARA). In the ARA the following rationale was given for requested FoPT table changes “The code for MPN encompasses different methods – SM 9221 (Multiple tube) and SM 9223 multiple well. These methods have different **sample volumes** analyzed and therefore different reported values.” The intent of this passage was “these methods have **different numbers of sample portions analyzed** and use different MPN tables, therefore they have different reported values.”

The more data points (from more “sample portions”) analyzed for any given sample, the tighter the confidence interval around the results. In the case of the various MPN methods, the multiple-well methods that have 97 wells (or “sample portions”) have more results, and therefore the confidence interval of the results is tighter than a 15 tube test where only 15 sample portions are analyzed. For instance, if a laboratory found that there were 50 cells in a given sample, if doing the 15 tube test method (using Standard Methods 9221C:IV “MPN Index and 95% confidence limits for various combinations of positive results when five tubes are used per dilution”) the confidence limits around that data is 15 - 120 cells, roughly a factor of 10 in difference. For the same result when using a QuantiTray, the confidence limits around that data would be 34 – 71, roughly a factor of 2.

If, in a given PT study, the majority of the laboratories are using the method with more sample portions analyzed (such as a multiple well method), the study results (within  $\pm 2$  SD) may be less than the results obtained by a method where fewer sample portions are examined. The result may be unintended failures of those laboratories using the method with the fewer sample portions examined. (See Attachment #1).

While it is true that these methods may require that different sample volumes be used (the 15 tube test uses only 55.5 mL of sample while the QuantiTray requires use of 100 mL), the MPN tables used for these methods were prepared in order to account for these differences. This is reflected in the results reported as “MPN Index/100 mL” in the Standard Methods 9221C:IV (“MPN Index and 95% confidence limits for various combinations of positive results when five tubes are used per dilution”).

**2. Q: “What are the actual statistics in pass/fail per method?”**

**Micro FoPT subcommittee response:** The FoPT committee has not yet asked the PT providers for these data, but plans to as a part of the discussion on this matter. The committee believes that it cannot ask PT providers for such data until the AC has accepted this matter for consideration.

**3. Q: “Is it possible that the organism used by the PT provider has something to do with the pass/fail rate? “**

**Micro FoPT subcommittee response:** The previous micro FoPT subcommittee (2013 - 2014) explored the notion of requiring only certain strains be used by the PT providers to mitigate such concerns and to ensure consistency amongst PT samples. However, for a variety of reasons, this idea was not supported by the committee in general, and did not go forward as a recommendation to the PTPEC. (See attachment #2)

**4. Q: “The Colilert media can be used to test in multiple tube technologies and QuantiTrays come in different sizes and use different statistical tables when determining the final result. Have these differences been considered?”**

**Micro FoPT subcommittee response:** Colilert can be used in a variety of formats: the pre-dispensed tubed medium can be used in both a 10 and 15 tube formats. The Colilert medium can also be used with the QuantiTray formats – both the “original” QuantiTray (51 wells) and the QuantiTray 2000 (97 wells) are approved for use. If a laboratory were to use the tubed Colilert for a 10 tube test, the MPN results would be obtained from Standard Methods 9221C:III (“MPN Index and 95% Confidence Limits for all Combinations of Positive and Negative Results When Ten 10-mL Portions are Used”). If a laboratory were to use the tubed Colilert for a 15 tube MPN test, the results would be obtained from the Standard Methods 9221C:IV (“MPN Index and 95% Confidence Limits for Various Combinations of Positive Results When Five Tubes are Used Per Dilution (10 mL, 1 mL, and 0.1 mL)”). If the laboratory utilizes the Colilert medium with either of the QuantiTray formats, the MPN results are obtained from the MPN table provided by the manufacturer with the QuantiTrays. It is important to note that the MPN results for all approved MPN methods, no matter of the format used (10 tubes, 15 tubes, and both QuantiTray formats) were obtained using the same algorithms (the papers describing the algorithm are cited in the SM 9221C bibliography).

From a statistical perspective, due to the inherent differences in the methods and the resulting differences in method variability, the results obtained are different. Since different numbers of sample portions are analyzed in the two types of MPN (10 or 15 tests versus the 51/97 multiple well tests), the data generated have different standard deviations and therefore different confidence intervals. This precludes the data from these groups of methods from being pooled for analyses.

The committee recently discussed if there may be differences in the results obtained from the different QuantiTray formats, and it was agreed that the results generated from both the QuantiTray and QuantiTray 2000 are not likely to be significantly different, as the confidence limits are similar.

The suggested changes to the FoPT table would capture the different results obtained from different formats of Colilert – as the results obtained using the predispensed tubed Colilert

(10/15 tube test) would be under the “MPN SM 9221C” field and the results obtained using Colilert with either format of the QuantiTray would be captured under the “MPN multiple well” field.

### MPN tables - 9221C vs. multiple well

If true result of a test was 50 cells...

**For the 9221 MTF MPN, the confidence interval would be 15 - 120. Roughly a factor of 10**

| Confidence Interval | MTF MPN | MTF MPN | MTF MPN | MTF MPN | MTF MPN | MTF MPN | MTF MPN | MTF MPN | MTF MPN |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 100%                | 50      | 50      | 50      | 50      | 50      | 50      | 50      | 50      | 50      |
| 95%                 | 40      | 60      | 40      | 60      | 40      | 60      | 40      | 60      | 40      |
| 90%                 | 30      | 80      | 30      | 80      | 30      | 80      | 30      | 80      | 30      |
| 80%                 | 20      | 120     | 20      | 120     | 20      | 120     | 20      | 120     | 20      |
| 70%                 | 15      | 150     | 15      | 150     | 15      | 150     | 15      | 150     | 15      |
| 60%                 | 12      | 200     | 12      | 200     | 12      | 200     | 12      | 200     | 12      |
| 50%                 | 10      | 250     | 10      | 250     | 10      | 250     | 10      | 250     | 10      |
| 40%                 | 8       | 300     | 8       | 300     | 8       | 300     | 8       | 300     | 8       |
| 30%                 | 6       | 400     | 6       | 400     | 6       | 400     | 6       | 400     | 6       |
| 20%                 | 4       | 600     | 4       | 600     | 4       | 600     | 4       | 600     | 4       |
| 10%                 | 2       | 1000    | 2       | 1000    | 2       | 1000    | 2       | 1000    | 2       |

**For the QT MPN, the confidence interval would be 34 - 71 (IDEXX MPN generator) - roughly a factor of 2**

| Confidence Interval | QT MPN | QT MPN | QT MPN | QT MPN | QT MPN | QT MPN | QT MPN | QT MPN | QT MPN |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 100%                | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     |
| 95%                 | 45     | 55     | 45     | 55     | 45     | 55     | 45     | 55     | 45     |
| 90%                 | 40     | 60     | 40     | 60     | 40     | 60     | 40     | 60     | 40     |
| 80%                 | 35     | 65     | 35     | 65     | 35     | 65     | 35     | 65     | 35     |
| 70%                 | 34     | 71     | 34     | 71     | 34     | 71     | 34     | 71     | 34     |
| 60%                 | 32     | 75     | 32     | 75     | 32     | 75     | 32     | 75     | 32     |
| 50%                 | 30     | 80     | 30     | 80     | 30     | 80     | 30     | 80     | 30     |
| 40%                 | 28     | 85     | 28     | 85     | 28     | 85     | 28     | 85     | 28     |
| 30%                 | 26     | 90     | 26     | 90     | 26     | 90     | 26     | 90     | 26     |
| 20%                 | 24     | 95     | 24     | 95     | 24     | 95     | 24     | 95     | 24     |
| 10%                 | 22     | 100    | 22     | 100    | 22     | 100    | 22     | 100    | 22     |

### MPN tables - 9221C vs. multiple well

Normal bell curve, showing normal standard deviations

For the normal distribution, the values less than one standard deviation away from the mean account for 68.27%, the values between one and two standard deviations from the mean account for 25.42%, and three standard deviations account for 99.73%.

If in this example, the red curve represents the log transformed (normal) data achieved using a method such as the MTF MPN (with wider confidence intervals), the blue bell curve could represent data from a test with narrower confidence intervals

## Attachment #2: Recommendation from 2013 – 2014 Microbiology FoPT subcommittee regarding bacterial strains used for PT samples

### TNI PT Program Executive Committee Meeting Summary

June 27, 2013

#### 1. Roll call and approval of minutes:

Chair, Stacie Metzler, called the TNI PT Program Executive Committee (PTP EC) meeting to order on June 27, 2013, at 1PM EST. Attendance is recorded in Attachment A – there were 9 Executive Committee members present. Associate members present included: Rob Knake.

The May 16th minutes were reviewed. Eric's contact information has been updated. Nicole motioned that they be approved. The motion was seconded by Eric and unanimously approved.

#### 2. FoPT

##### DW FoPT Table

Stacie sent the footnote clarification to the NELAP AC, but has not heard anything back yet. The effective date may need to change.

##### Chemistry FoPT Subcommittee

The subcommittee is continuing its work on the SCM FoPT Table.

##### Questions

Michela sent an e-mail about Cyanide –

*June 7, 2013: I had a question raised to me recently about how cyanide is listed on the DW FoPT table.*

*The regulated analyte is free cyanide. We have cyanide listed as total on the FoPT table. The composition of the PT is correct, as potassium cyanide (as it is in the EPA Criteria Document). Why did we list it as total instead of free? One of the EPA Regions has raised this concern, as there is no PT for a regulated analyte (free cyanide). EPA considers total cyanide as a screening method for free cyanide.*

*Cyanide is regulated as free cyanide. Laboratories need to determine and report "free" cyanide using one of the methods approved in 40 CFR Part 141 or Appendix A to Subpart C of Part 141 for determining "free" cyanide. Alternatively, they can use an approved*

method that determines "total" cyanide; these are adequate screening methods and are cheaper than the Manual (Preliminary) Distillation followed by Manual Spectrophotometry, Free Cyanide Amenable to Chlorination method. The result of a "total" cyanide method will determine if you need to run an additional test for "free" cyanide.

If you run a method that determines "free" cyanide, report the amount of "free" cyanide. If you run a method that determines "total" cyanide:

- If the "total" cyanide is less than the MCL for "free" cyanide (currently < 0.2 mg/L), report the "free" cyanide as < 0.2 mg/L (since 40 CFR 141.62 currently states that cyanide should be reported as "free" cyanide).
- If the "total" cyanide is greater than or equal to the MCL for "free" cyanide (currently  $\geq 0.2$  mg/L), determine the "free" cyanide using methods approved in 40 CFR 141.23 or Appendix A to Subpart C of Part 141 and report "free" cyanide.

Pat noted that free Cyanide has a different analyte code than Total Cyanide. The addition of just Cyanide may cause some confusion. This will be forwarded to the Chemistry FoPT Subcommittee for discussion. This will be added to the next agenda and hopefully Carl and Michella can be on the next call in July to resolve this. Nicole noted that 40 CFR Part 141 only lists Cyanide. It does not specify Total or Free. Pat commented that if it were listed as Cyanide on the table, a note (13b) would need to be modified on the table to clarify.

Stacie will e-mail the concern to Carl for discussion at the next Chemistry FoPT Subcommittee meeting.

#### Microbiology FoPT Subcommittee

The next meeting will be July 16<sup>th</sup>. There has been discussion on specifying strains. The committee has decided it is not a global issue and they plan to recommend not specifying strains in the FoPT table. The subcommittee may have at least one recommendation in San Antonio.

### 3. Position Paper

Eric is working on the DRAFT and the subcommittee will meet to work through it. The paper describes TNI's philosophy behind PTs and was originally requested by the Advocacy Committee. A DRAFT will be distributed to the Executive Committee before the July meeting.

### 4. PT Program Evaluation Update

Subcommittee Membership: Stacie Metzler, Carl Kircher, Curtis Wood, Randy Quarry, Susan Butts, Matt Sica, Rob Knake, Keith Ward, and Kelly Black. There will be a



Attachment E:

Hi Aaren,

On behalf of the PTPEC, I would like to request the NELAP AC to consider the following concerns at an upcoming meeting of the AC and provide guidance to PTPEC at your earliest opportunity.

The PTPEC has an active subcommittee, known as the FoPT Table Format Subcommittee, which has been tasked with adding appropriate methods to the Drinking Water FoPT Table, adding appropriate technologies to the Non-Potable Water and Solid and Chemical Materials FoPT tables, and adding CAS Registry numbers to all FoPT Tables.

The FoPT Table Format Subcommittee was created by the PTPEC following a discussion at the 8-6- 2013 meeting of the PTPEC at the TNI Forum, at which Susan Wyatt, Minnesota's representative on the AC at the time, raised the issue that the current FoPT tables did not meet the requirements of an FoPT table, as method/technology are not included. The PTPEC's understanding at the time was that Accreditation Bodies were requesting PTPEC to address this shortcoming in the FoPT Tables. This is reflected in the subcommittee scope (attached), which states that "this subcommittee has been initiated in response to feedback received by the PTPEC from Accreditation Bodies regarding PT program evaluations."

The subcommittee has been working on their appointed tasks, starting with adding appropriate methods to the Drinking Water FoPT Table. Recently, the PTPEC has received informal inquiries from some members of the AC about the intent and perhaps, usefulness of adding methods and technologies to the FoPT tables. The subcommittee is operating under the premise that the intent of adding technologies and methods to the tables is to align the tables with the definition of FoPT, which includes technology/method, and to provide table users with a listing of appropriate technologies and methods for each FoPT (*i.e.* the sample range and acceptance criteria are appropriate for that analyte, in that matrix, by that technology/method). Without the addition of technology/method, there is currently no other way to specify the appropriateness of each FoPT for specific technologies or methods.

An example of why providing technology adds value is demonstrated with EDB/DBCP/TCP. In this case, the concentration ranges associated with these analytes on the DW FoPT table may not be appropriate for GC/MS technology (524.3) but better suited to GC/ECD technology (551.1/504.1) based on published method sensitivity alone. (see table below).

|                                    | Published MDL's in µg/L (using fortification method) |              |              | DW FoPT Range (µg/L) | PTRL (µg/L) |      |
|------------------------------------|--|--------------|--------------|----------------------|-------------|------|
|                                    | <u>524.3</u>   | <u>504.1</u> | <u>551.1</u> |                      |             |      |
| 1,2 Dibromoethane (EDB)            | 0.025  | 0.01         | 0.008        | 0.05                 | 2           | 0.03 |
| 1,2 Dibromo-3-Chloropropane (DBCP) | 0.10   | 0.01         | 0.009        | 0.1                  | 2           | 0.06 |
| 1,2,3-Trichloropropane (TCP)       | 0.10   | 0.02         | 0.008        | 0.2                  | 2.0         | 0.12 |

Naphthalene is an example for why methods should be added. Naphthalene can be analyzed as a volatile by 524.2 or as a semivolatile by 525.2. Both are GC/MS methods, but in the DW FoPT table, Naphthalene is listed under volatiles and the concentration range and acceptance criteria are based on volatile analyses.

The PTPEC is requesting formal guidance from the AC regarding the need and nature of the work being conducted by the subcommittee in accordance with its scope (see attached). More specifically, does the AC still feel the scope is valid, relevant and needed at this time? The subcommittee represents a substantial investment of volunteer resources and effort, and we want to ensure that those efforts are productive and necessary.

Thank you.

**Proficiency Testing Program Executive Committee  
Fields of Proficiency Testing (FoPT) Table Format Subcommittee  
(PTPEC – FoPT)**

**2015 Scope**

**(Revised: 01-20-2015)**

**Mission:**

The subcommittee shall develop an improved template for existing, approved FoPT tables to bring them into agreement with the FoPT definitions in the 2009 TNI Standard. This subcommittee has been initiated in response to feedback received by the PTPEC from Accreditation Bodies regarding PT Program evaluations.

**Goals and Objectives:**

**Goal #1: Develop an improved template for existing, approved FoPT tables:**

FoPT tables are utilized as a matrix dependent analyte list to determine which analytes require PT. There are currently few analytical methods or technologies explicitly listed on the FoPT tables. Utilizing different analytical methods or technologies on the same analyte can yield different results, potentially falling outside the PT study acceptance ranges. The new FoPT table template will document the analytical method (Drinking Water FoPT Table only) or specific technology (Non-Potable Water and Solid and Chemical Materials FoPT tables) for which the acceptable ranges were intended. Additionally, the methods or technologies specified will be those utilized in sample analysis, not sample preparation.

**Goal #2: Define the analytes listed in the FoPT tables:**

The FoPT tables currently state: the name of the analyte to be measured, the corresponding TNI code, and some (not all) analytes have the EPA code noted. This may lead to undue confusion for some analytes with multiple nomenclature possibilities to anyone not familiar with TNI coding. Thus, the new FoPT table template will include additional space for the Chemical Abstracts Service (CAS) Registry numbers to aid in specific chemical identification.

**Considerations:**

- Volunteer member organization with time constraints.
- Limited funding.

**Available Resources:**

- Volunteer committee members
- TNI Website and other TNI support services (administrative, technical editing, etc.)
- Teleconference and web-based services
- Industry experts

**Additional Resources Required:**

- Conference line availability for committee meeting

**Anticipated Meeting Schedule:**

- Monthly subcommittee teleconferences (open to all Members)
- Additional subcommittee teleconferences as needed

**Program Administrator:** Ilona Taunton