SUMMARY OF THE
TNI LABORATORY PROFICIENCY TESTING EXPERT COMMITTEE MEETING

AUGUST 5, 2014

The Committee met on Tuesday August 5, 2014, at the Environmental Measurement Symposium, Washington DC, at 9:00 am EST. Chair Shawn Kassner led the meeting.

1 – Roll call

Fred Anderson, Advanced Analytical Solutions (Other)	Present
Stephen Arpie, Absolute Standards (Other)	Present
Kareen Baker, Independent (Other)	Absent
Yumi Creason, PA DEP (AB)	Absent
Rachel Ellis, NJ DEP (AB)	Present
Scott Hoatson, Oregon DEQ (AB)	Present
Shawn Kassner, Phenova (Chair; Other)	Present
Roger Kenton, Eastman Chemical Co. (Lab)	Present
Stacie Metzler, Hampton Roads San. Distr. (Lab)	Present
Mitzi Miller, Dade Moeller Assocs. (Other)	Present
Judy Morgan, Env. Science Corp. (Lab)	Present
Virgene Mulligan, Amrad (Lab)	Present
Joe Pardue, P2S (Other)	Present
Jim Todaro, Alpha Analytical (Lab)	Present
Lisa Touet, MA DEP (AB)	Absent
Ken Jackson, Program Administrator	Absent

2 – Introduction

Shawn welcomed the attendees and the Committee members introduced themselves.

3 – Consideration of Voters' Comments on V1M1 and V2M2

Comment #2, Aaren Alger (V1M1 General Comment)

The V1M1 does not include any requirement for PT studies to only be open for 45 days. V1M1 does not include any requirements for a laboratory to report supplemental PTs within 45 days of the shipment date. In addition, it doesn't say that scheduled PT studies can only be open for 45 days. If this requirement is added to V1, then it doesn't need to be added to V2. This is something that is necessary because some labs are still trying to use DMRQA to count toward NELAP PT performance. All requirements that labs need to follow and understand need to be included in Volume 1.

Although there was some discussion whether to add this back into the standard to ensure labs are not going to be confused between DMR QA and TNI Approved PT Studies, the Committee responded that this requirement is in Volume 3, and not necessary in V1M1. It is also included in instructions

from PT Providers. It was moved by Mitzi and seconded by Virgene to rule the comment Non-Persuasive. The motion passed.

Comment #38, Aaren Alger (V1M1, 4.2.2)

I ask the committee to consider the addition of "number of replicates" and "instrumentation" to the list of things that the laboratory must "do in the same way" as routine environmental samples. I ask that the committee also consider adding the term "preparation" to the last part of the sentence. Such as, "PT samples shall be analyzed in accordance with the laboratory's established standard operating procedures (SOPs) using the same quality control, acceptance criteria, staff, number of replicates, and instrumentation as used for the preparation and analysis of routine environmental samples.

The Committee decided the proposed language may be too specific and lead to an interpretation that PTs MUST be run on all instrumentation. Specifying "in accordance with SOP" is sufficient. It was moved by Scott and seconded by Jim to rule the comment Non-persuasive. The motion passed.

Comment #57, Aaren Alger (V1M1, 4.3.4)

This section is now written very differently from the 2009 TNI Standard which instructs the laboratory and the AB to score PTs by technology (except for DW) and that if a laboratory chooses to report multiple methods for the same technology, fails one or more methods, then a failure is recorded for all methods associated with that technology. This newly written section now says that the laboratory "may choose" to report PTs by technology. However, this section doesn't tell the laboratory how the PTs will be scored if they choose to report some methods within a technology but not all of them. For example,:
• Let's say a laboratory Has accreditation for Cyanide by three manual spec, methods:
o SM 4500-CN E,
o ASTM D2036-09(A), and
o USGS I-3300-85 in NPW.
• Reports the following in a PT study:
o SM 4500-CN E = "Acceptable"
o ASTM D2036-09(A) = "Not Acceptable" and
o Doesn't report any results by USGS I-3300-85
• How is the USGS evaluated/scored? Does the laboratory get an "Acceptable" because of the SM performance, a "Not Acceptable" because of the ASTM performance, or nothing because it didn't report the USGS method?

• Then, what happens if the laboratory reports all methods in Study #1 and then only reports some methods in Study #2, and some others in Study #3? What is the laboratory's PT history for the most recent 3 studies when they didn't report all methods in all studies nor did they only report by technology?
o The laboratory reports all methods in Study #1 and gets these results:
§ SM = Acceptable
§ USGS = Not Acceptable
§ ASTM = Not Acceptable
o In Study #2, the lab decides to report by technology and only reports SM and gets an Acceptable result.

§ SM = Acceptable
o In Study #3, the lab only reports 2 methods and ends up with the following results:
§ USGS = Not Acceptable
§ ASTM = Acceptable

It was commented that this section is only based on one score, and which score determines whether the technology passes or fails? It was agreed to change the language to say any unacceptable score should apply to all methods using that technology. Also "analyte' will be changed to "FoPT". It was moved by Roger and seconded by Scott to rule the comment Persuasive. The motion passed with one negative vote.

Comment #88, Aaren Alger (V1M1, 5.2.1.1)

The term "acceptable scores" in the first sentence of 5.2.1.1 should be removed because an acceptable score on a PT study does not actually result in a successful PT performance. The laboratory must meet all reporting timelines, report a valid method, and other requirements for the study to be deemed "successful" by the AB. In addition, I suggest that this section should be broken into multiple sections to improve readability and some grammar. Such as:
5.2.1.1 The laboratory shall maintain a history of two (2) successful ~~(acceptable scores)~~ PT studies out of the most recent three (3) attempts for each ~~field of accreditation~~ FoPT as specified in Section 4.1.1 for which the laboratory seeks to maintain ~~holds~~ accreditation.
5.2.1.1.1 Failure to ~~do so~~ maintain a history of two (2) successful PT studies out of the most recent three (3) attempts may result in suspension of accreditation for the affected field of accreditation.
5.2.1.1.2 The laboratory's accreditation for a FOA may be revoked ~~for failure of~~ if the laboratory fails to successfully analyze the same FoPT in three (3) consecutive PT studies, either by failure to participate in PT studies with the required frequency or due to failure to obtain acceptable results.

The Committee agreed with the commenter's proposed language change. It was also discussed whether to remove "acceptable" from 5.1.1 and 5.2.1. It was agreed to add "including" to the parenthetical in 5.1.1 and 5.2.1, and to bullet the items in 5.2.1. Aaren agreed with the change and asked the committee to also bullet the 5.2.1.1 items for clarity. It was moved by Mitzi and seconded by Judy to incorporate the above changes and rule the comment Persuasive. The motion passed. It was also moved by Mitzi and seconded by Fred to change "fields of accreditation" to "FoPT" in 5.1.1.a and 5.2.1.1, and to fix "failure to do so" in 5.1.1.a. The motion passed.

Comment #116, Aaren Alger (V2M2, 3.5)

Definition of Primary AB. I suggest that you delete the term "Primary" and remove any reference to "Primary" from the standard and just define "Accreditation Body".

It was commented to use caution when referring to primary AB. Some things listed may be of interest to the secondary as well. However, deleting primary reference may change the intent of the standard. Use of primary in V1M1 defines the roles for the different types of ABs. It was agreed to table the resolution of this issue, and Yumi would go through the standard and evaluate the use of the word primary.

Comment #20, Aaren Alger (V1M1, 3.12)

Definition of PT Study Closing Date, a) Scheduled PT Study. I suggest that you add the word "participating" to the definition. Such as, "The calendar date for which all participating laboratories must submit…"

It was moved by Stacie and seconded by Jim to rule the comment Non-Persuasive. The motion passed.

Comment #30, Aaren Alger (V1M1, 4.1.3)

I ask the committee to consider removing the term "or supplemental studies" from this section. These words are not needed since the term "PT studies" covers supplemental studies.

It was moved by Scott and seconded by Joe to rule the comment Persuasive. The motion passed.

Comment #43, Aaren Alger (V1M1, 4.2.3)

The committee should consider re-wording this section because it is slightly confusing. If the committee would consider adding the term "at or below" to the middle of the sentence then the section would not need the last part of the sentence. Such as, "The laboratory shall evaluate and report the analytical result for each chemistry and radiochemistry FoPT to a concentration at or below the PTRL as established by the TNI FoPT Tables." This change could also be made to section 4.3.7 thereby eliminating the "b)" and "c)" descriptions of how to report PT results to the Provider.

It was commented that reporting to the PTRL can lead to labs to report "j" flag numbers, because the PTRLs are different from the working range of the laboratory. Also, this section does not handle reporting, which is addressed in 4.3. It was moved by Scott and seconded by Joe to rule the comment Non-Persuasive. The motion passed.

Comment #56, Aaren Alger (V1M1, 4.3.3)

I don't understand what this section means. The sentence seems to require the laboratory to match the analytical result to the laboratory's information, such as Lab Name, ID#, or address, since the requirement specifically states, "and any criterion that identifies the laboratory…" Is the committee trying to instruct the laboratory to properly report their laboratory's identifying information to the Provider or is the intent to instruct the laboratory to report the analytical method for which the laboratory seeks to obtain or maintain accreditation?

The committee responded that this section addressed reporting to the proper method. The language will be changed (delete "the laboratory for"). It was moved by Scott and seconded by Fred to rule the comment Persuasive. The motion passed.

Comment Assignments

Shawn said he would distribute comments for V1M1 and V2M2 for committee and associate members to address (5 to 10 comments each). Virgene would address radiochemistry comments, where issues are very different from the issues associated with chemistry. Sections of the standard

do not apply to Radiochemistry, and reporting is very different as well. Clarification will be added and terminology will be corrected to be specific to radiochemistry.

The TNI webmaster would organize the comments into a spreadsheet (this was done prior to these minutes being written and the comment numbers refer to those in the spreadsheet). When complete, comments from the voting would be presented in an accessible public communication.

At this point, the meeting adjourned for lunch (12:00 Noon – 1:00 pm)

4 – Consideration of Comments on the V3 Working Draft Standard

Several comments had already been addressed during the committee's conference calls. Shawn said input was still needed on Radiochemistry, and Giardia/Cryptosporidium.

Thekkekalathil Chandrasekhar (Chandra)

Chandra had submitted data showing higher recoveries in PT studies for certain (newer) technologies. His example suggesteds that data reported by diverse technologies such as GC/ECD and HPLC/MS are sufficiently different in their analytical characteristics that data from these technologies come from separate (statistical) distributions. More data comparing results from the two technologies will very likely show a bi-modal distribution with distinct means and variances for the two technologies. He suggested that the current procedure for assigning acceptance limits to PT samples based on pooled data from a small number of laboratories unfairly penalizes participants that may be reporting more accurate data, because the majority of laboratories are using a method that has an inherently low bias (GC-ECD in this case). He said data accuracy should also be an important consideration in evaluating laboratory performance, not merely the (relative) position of the reported data in the sample distribution, especially one with highly asymmetric acceptance limits. Nicole Cairns suggested a separate FoPT might be needed, and Stacie said the first step should be to apply to the PT Executive Committee (PTEC) for an additional FoPT table. It was pointed out however, at least 7 participants using the technology would be required for scoring statistics to be applied. Steve said, in such cases where a bi-modal distribution is seen, a PT Provider judges a laboratory's competence from its performance history and hence decides if it should pass. Shawn questioned if a PT provider can separate out results in a bi-modal distribution. Kelly Black suggested a PT Provider could report a result unacceptable, but could flag the result to say it may be from a bi-modal distribution. She added there is a statistical procedure for detecting bi-modality. It was agreed this is not a standard issue, and it was moved and passed that Shawn would forward it to the PTEC for its consideration.

Hoffman and Villegas.

Their comments on Protozoans had been discussed at length in committee, and Shawn reported it had been decided Protozoans (Cryptosporidium and Giardia) will go into V3. He said he would get draft language to the committee shortly.

Jeff Lowry (Lowry_0514).

Jeff had asked what criterion is being used to determine if the calibration standards are independent of the PT standards, and this had also been discussed in committee. Shawn gave an update on

progress, saying the question is really what is a "second source". This still needed to be resolved through discussions with Judy Morgan, Paul Junio and Richard Burrows.

Shawn asked if there were any other V3 issues anyone wanted to raise. In the absence of further input, Shawn closed the discussion.

5 – Consideration of Comments on the V4 Working Draft Standard

Shawn said only 5 comments had been received.

Jeff Lowry (Lowry_0714).

Jeff was concerned with the language change in 6.3.2. He wanted a statement added that the PTPA must provide, upon request, the data to establish the pass/fail rates criteria to the PTPEC. Nicole Cairns asked if there should be a general statement that PTPAs give data to the PTPEC on request, but Randy Querry wondered if there are legal issues that should be considered. Kelly Black thought there should be more specific requirements; e.g., every 3 months. It was decided to make no decision yet. Shawn asked Maria Friedman to brainstorm the PTPEC. Also, the PTPAs were asked to consider what could be released without liability.

Nicole Cairns (Cairns_0728_1)

This concerned inconsistent definitions. The committee ruled this persuasive and agreed to review the definitions.

Nicole Cairns (Cairns_0728_2)

Nicole proposed an addition to the statement in 4.1.c: Conduct appropriate evaluations of any organization seeking to be or remain a PTPA at a minimum of every four (4) years.

It was moved by Scott and seconded by Jim to approve this proposed change. All were in favor.

Nicole Cairns (Cairns_0728_3)

In Section 6.0, the statement: "The accreditation process shall be repeated at a minimum of every four (4) years, and shall include all stages of initial review, on-site assessment and oversight." Was said to be in conflict with Volume 3 (current WDS), Section 4.4, which states that "PT providers shall be subject to biennial onsite assessments". The committee agreed it should be every 2 years.

Nicole Cairns (Cairns_0728_4)

Nicole commented the multiple references to "this Standard" were unclear; i.e., was it V4, V3 or the entite TNI standard? The committee confirmed it should be V3. It was moved by Fred and seconded by Joe to review the sections to ensure references to the standard are specific. All were in favor. Stacie agreed to do this.

5 – Standard Interpretation Request (SIR)

An SIR questioned the rules for PT failure when a laboratory reported individual results by more than one method for the same analyte/technology. It was questioned whether each metals failure for ICP would be a failure for all ICP methods. It was asked if this is the case, whether the laboratory could only run by one method and hold the accreditation for both. This generated a lot of discussion, but it has also been discussed extensively in the past and the committee agreed the standard is clear on this issue.

Adjournment

The meeting was adjourned at 2:45 pm EDT.