

**SUMMARY OF THE
TNI LABORATORY PROFICIENCY TESTING EXPERT COMMITTEE MEETING**

AUGUST 7, 2018

The Committee met publicly during the Environmental Measurement Symposium, New Orleans, LA, on Tuesday August 7, at 9:00 am CDT. Chair Nicole Cairns led the meeting.

1 – Roll call

Fred Anderson, Advanced Analytical Solutions (PT Provider)	Present
Jim Brownfield, ESC (Laboratory)	Present
Nicole Cairns, NYSDOH (Chair; Laboratory)	Present
Thekkekalathil Chandrasekhar (Chandra), FLDEP (Laboratory)	Present
Rachel Ellis, NJ DEP (AB)	Absent
Patrick Garrity, KYDOW (AB)	Present
Craig Huff, ERA (PT Provider)	Present
Susan Jackson, SC DHEC (AB)	Present
Tim Miller, Phenova (PT Provider)	Present
Reggie Morgan, Hampton Roads San. Distr. (Lab)	Present
Ken Jackson, Program Administrator	Present

2 – Introductions

By way of introduction, Nicole outlined the mission of the committee. She described the elements of the TNI Proficiency Testing (PT) Program that are addressed by the PT Expert Committee, followed by the objectives, decision making, and the schedule of meetings.

Topics to be covered during the meeting would be PT frequency and the guidance document on Proficiency Test Reporting Limit (PTRL).

3 – PT Frequency

Nicole said historically two PTs per year were required throughout NELAC, INELA, and now TNI. However, in the past it had been suggested to reduce the frequency to one per year, and this had undergone discussion. In April 2008, a subcommittee had been formed to gather and analyze information. This involved a comparison of laboratory performance where one PT had been required compared with two PTs, a survey of State Accreditation Bodies and accredited laboratories, and a review of scientific literature and US federal and international policies. The subcommittee issued its final report in August 2009, indicating: more PTs correlated with better laboratory PT performance; ABs differed on desired frequency and it might influence states' decision whether to join NELAP; the economic impact on PT frequency reduction was unclear; and two PTs per year were the normal for US Federal agencies and were recommended by IUPAC. The subcommittee concluded at that time there was no compelling evidence to support reducing PT frequency.

Nicole went on to describe current examples of PT frequency: the TNI standards implemented by NELAP requiring two PTs per year (though only one for Whole Effluent Toxicity); the Departments of Defense and Energy requiring two per year; EPA requiring only one for drinking water; and California requiring one per year, which would prevent that state from becoming a NELAP AB at this time.

The next steps would be to gather information from the TNI community, and that would be addressed during this meeting. Already, the topic had been discussed during the January 2018 Forum on Laboratory Accreditation in Albuquerque when a straw poll had resulted in about a 50/50 vote on two vs. one PT. Comments at that meeting had included suggestion of a risk-based frequency, whereby a laboratory would have to perform well to be able to analyze only one PT annually. It had also been suggested, if PT frequency was reduced to one per year, requiring repeat PTs and/or corrective actions for failure, and spiking with all analytes. If, after further discussion, there was sufficient demand the committee would continue to re-evaluate PT frequency.

In order to start the discussion, pros and cons of PTs were presented. The pros listed were help with legal defensibility, one QC measure of data quality, and provision of information to ABs between biennial on-site assessments. The cons were that PTs do not in themselves define a “good” laboratory by only presenting limited confidence in the quality of work, only capture minimum requirements, and finally the cost. Nicole presented the following questions to consider: the purpose PTs serve; what the data convey; and what has changed since the 2009 evaluation; i.e., if there is sufficient demand to re-evaluate. Her personal opinion was that little had changed since the subcommittee report in 2009, so it may not be worth the resources to re-open the issue. Craig concurred, reminding those present that internationally the normal frequency is two or even three PTs per year. Tim was concerned that a laboratory could be non-proficient for longer if it analyzed only one PT per year. Susan pointed out that some non-NELAP states only require one PT, and that may deter them from becoming NELAP ABs due to the higher cost of two PTs. Chandra made the point that his laboratory would prefer to have to analyze two PTs per year if it assured only biennial on-site assessments. Reggie also favored the current frequency of two PTs. Patrick described what they are doing in Kentucky. As a non-NELAP AB, that state requires just one PT per year for drinking water to be compliant with EPA requirements. Then, after adding waste-water accreditation, they also stayed with one PT. However, enhanced routine quality control was adopted to supplement that one PT. Fred said the state of Washington saw poorer performance when PT frequency was reduced to one. Matt Sica stated the purpose of PTs is to monitor the on-going performance of a laboratory, and one PT may often be sufficient, but then the frequency should be higher for more complex tests. He said the drive should be to improve quality rather than to be punitive by suspension. Stacie Crandall said, if one PT per year required corrective action for failures, this would increase costs for laboratories. Also, she did not agree with spiking all analytes, because a laboratory needed to be able to identify a non-detect. Deb Waller said the NJ accreditation program has a non-NELAP component with one PT per year. Failure of two PTs leads to suspension. Ron Coss, representing a laboratory in CA, felt there was excessive risk with just one PT. He said the costs of PTs are negligible to the overall cost of running a laboratory, and he saw PTs as demonstrating data quality rather than driving it. Judy Solano suggested increasing the number of PTs for emerging contaminants. Curtis Wood suggested PT design is a limiting factor in the reticence of states such as CA agreeing to two PTs per year. He said PTs should be made to be a better indicator of laboratory performance. Jeff Flowers disagreed that PT costs are trivial to a laboratory. He said there was only a 4% improvement in passing PTs if there were two per year compared with one per year, and there are now fewer laboratories in FL due to high operating costs. Ken Lancaster considered the costs to an AB that would have to put other things in place to offset the decreased assurance of laboratory quality if PT frequency were reduced. He suggested it would result in increased accreditation costs.

At the end of this discussion, a straw poll was held. Overwhelmingly, those present voted for retaining two PTs per year. Only 3 people in the room wanted to reduce the frequency, and notably two of them were from CA. Nicole indicated the PT Expert Committee would probably recommend no further action on PT frequency. During this meeting, useful input was provided on the advantages of two PTs per year. It was suggested the committee might now spend time preparing educational materials to help present these advantages to states such as CA that have decided to require only one PT per year. This could help persuade those states to adopt two PTs and join NELAP.

This brought the meeting to its mid-morning break

4 – Evaluating and Reporting PTs to the PTRL

Most of the remaining time in the session was devoted to a presentation of the committee's guidance document on PTRL in the 2016 standard. Nicole gave a slide presentation that was well received with no major comments or questions from the audience.

5 – 2016 Standard PT Scoring Change – Impact on Microbiology PTs

This topic had been discussed during the June conference call of the committee. It concerned laboratories reporting greater-than (>) values for PTs despite the method permitting this. This would result in PT failure using the 2016 standard, and Nicole said this was not addressed in the standard. Therefore, it was not addressed in the PTRL guidance document. Carl Kircher said laboratories needed to choose their dilution of the PT sample accordingly. However, it could be difficult for utility laboratories that are not accustomed to the need to dilute samples for microbiological testing.

6 – Adjournment

The meeting was adjourned at 12:00 pm CDT.