TNI PT Program Executive Committee
Meeting Summary

October 19, 2017

1. Roll call and approval of minutes:

   Chair, Maria Friedman, called the TNI PT Program Executive Committee (PTPEC) meeting to order by teleconference on October 19, 2017, at 1:05 pm Eastern. Attendance is recorded in Attachment A – there were 9 members present. Associate Members present: Andy Valkenburg and Carl Kircher,

   Maria confirmed everyone received the agenda and supporting documents on October 17th and 18th.

   Maria reviewed the September minutes with the committee. Nicole motioned to approve the September 21, 2017 minutes as written. Scott seconded the motion and it was unanimously approved.

2. Chair Update

   - The NELAP AC reviewed the PTPEC question on consistency between LAMS and FoPT tables. They agree it should be consistent. They expect that the name used will be the same name that is used with the CAS numbers. Maria copied Dan Hickman on the response from the NELAP AC. He commented that this may be difficult for some pesticides and some organics. Maria and Dan think the official name should be the CAS number name and where there are difficulties, the PTPEC and Dan will reach consensus and propose it to the NELAP AC. The NELAP AC also provided a naming issue for Dan Hickman to look into.
   - The Combined Evaluation SOP is not complete yet. It will be sent by email for review and hopefully finalization at the next meeting.
   - Registration for the TNI meeting in January opened today.

3. Old Business

   <u>Cyanide Footnote Issue</u>

   This discussion started last meeting and Andy provided information for everyone to read for today's discussion. Maria reviewed the initial request and Andy's information.

   Maria asked if it would be appropriate

Michella noted labs have to do PTs for both Free and Total Cyanide methods. She thinks if wording were added to the footnote about Free Cyanide being the regulated entity, it would be confusing to the labs. Ideally there would be one PT for Free Cyanide and one for Total Cyanide. This would make it clearer and easier for labs and regulators to pick the appropriate PT. There are different methods used for Total and Free Cyanide. Michella would prefer that the footnote only state Cyanide. Right now there isn't really data to set separate criteria for Free Cyanide and Total Cyanide.

Andy noted that the design criteria should include a mixture of complex and uncomplexed. to properly evaluate a Total or Cyanide Amenable to Chlorination. Otherwise it's too simple only running an uncomplexed. He is concerned about the design criteria. The design criteria now is a simple Cyanide and it really is not appropriate for all Cyanide methods. The data is not available for a more challenging PT since data is needed to add an analyte to the FoPT tables.

Nicole commented that an ARA should be completed to add this analyte and then the FoPT Subcommittee could determine some initial limits until the data is collected. Michella is planning to do this. The design criteria has always been using uncomplexed Cyanide. The footnote only changed in that the word Total was removed. It can now be used for both Total and Free. There is really nothing that can be done until an application is received by the PTPEC and the criteria are separated for Total and Free.

Add in parentheses "All Forms". This would clarify it further.

Michella made a motion to add "All Forms" to the current Cyanide footnote in FoPT table. The motion was seconded by Matt.
Vote: Susan, Nicole, Gil, Jennifer D., Scott, Matt, Michella, Jennifer M., Maria – For 0 – Against 0 – Abstain. The motion passed.

Michella has another version of what Andy sent. It has a document number on it. She will forward it to Maria.

<u>Complaint</u>

Maria sent a copy of the complaint to the committee by email and asked that everyone respect confidentiality (see Attachment D). She also sent a summary of comments received by email to help with the discussion today (see Attachment D). Most committee members felt more information is needed.

Maria reviewed the steps that have been taken to resolve this complaint. The complaint did initially go to the PTPA and now it falls into the Scope of the PTPEC. A subcommittee needs to be formed to review the complaint. Maria will confirm there are no unacceptable conflicts of interest. The subcommittee will generate a written report to the PTPEC.

Maria asked for Carl's input on this issue and Carl provided the following information for consideration during today's meeting:

> *The lab failed the PT due to the instrument problem as the lab identified. This is exactly what the PT was designed to do.*
>
> *Since this is only one PT failure, I am assuming that the lab is still accredited for SCM GC-ECD DDT. Hopefully, the lab will pass the next PT attempt.*
>
> *Theoretically, the lab's GC-ECD conditions should be such that there is ZERO % DDT breakdown at the GC injector port. Elevating the temperature to shorten the analysis run time or ensuring absolute volatilization of whatever is in the extract is a risk that the lab accepts, but this could hide other analytical problems where extract cleanup should be performed on all samples to eliminate interferences.*
>
> *Looking at our SCM PT data used for SCM DDT et al does not indicate any apparent problems with DDD. If anything, graph curl-ups at lower concentrations could warrant a closer look for DDE and for Endrin Aldehyde. However, I might mention that all the past and present PT acceptance criteria involved labs that similarly performed GC-ECD (and maybe a few GC-MS) for over 10 years, and these labs may have had varying degrees of DDT and Endrin breakdown problems over that whole period. Thus, changing PT acceptance criteria for one lab failing one PT study for one analyte does not justify a complete overhaul of the concentration range and acceptance criteria.*

Andy noted that he has done root cause analysis on a similar issue, but after expressing his thoughts Nicole noted that it would not fix the lab's problem. Andy thought the new Standard fixed the issue, but Nicole said this is a degradation issue. The FoPT tables and Volume 3 do not address degradation products. Nicole agreed with Carl's comments.

There was agreement that it is not the complaint subcommittee's job to figure out if the lab ran the sample correctly.

Maria asked for volunteers for the subcommittee: Andy, Susan, Nicole.

Maria will send a copy of Carl's comments to the subcommittee.

Maria would like to receive a DRAFT response before the next meeting. Nicole said they need PT data on the fail rates for the analytes (DDT, DDD, DDE and Endrin Aldehyde) - NPW and SCM. Matt agreed that this would be very useful information. It gives factual information. Carl is concerned there may not be a lot of data.

Maria will make this request and she will ask that they provide it in the TNI database. She will request information from all PT Providers and request 3 years of data.

4. Subcommittee Update

Chemistry FoPT Subcommittee – The committee will meet on October 31, 2017. They will be looking at the ARA from New Jersey and start discussing the Radiochemistry FoPT Table. There have been additions to the committee: Mike Blades, Shawn Kassner and Matt Sica.

SOP Subcommittee – The subcommittee is still reviewing the FoPT table update SOP. Gil will be inviting Carl to talk about the process. Ilona noted that Stacie Fry's role is to be a liason to the Chemistry FoPT Subcommittee.

FoPT Table Format Subcommittee – No report.

Microbiology FoPT Subcommittee – Jennifer Best (Chair) hopes to have information by the end of the month and she expects to have information to the PTPEC at the November meeting.

5. New Business.

- None.

6. Action Items

The action items can be found in Attachment B. Updates are added as notes in the table.

7. Next Meeting

The next meeting will be on 11/16/17. Ilona will send out Webex invitations the morning of the meeting. The committee should plan to review the

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

Maria adjourned the meeting at 2:21pm Eastern. (Motion to adjourn – Nicole. Second – Gil. Unanimous.)

Attachment A

Participants
TNI
Proficiency Testing Program Executive Committee

Members	Rep	Affiliation	Contact Information
Maria Friedman (2020) **Present**	AB	California Water Board	949-307-0949 Maria.Friedman@waterboards.ca.gov
Ilona Taunton, Program Administrator **Present**		TNI	828-712-9242 tauntoni@msn.com
Eric Smith (2019) **Absent**	Lab	ALS Environmental	904-394-4415 eric.smith@alsglobal.com
Susan Jackson (2018) **Present**	AB	South Carolina DHEC	(803)896-0978 jacksosb@dhec.sc.gov
Nicole Cairns (2018) **Present**	Lab	NY State DOH	(518) 473-0323 nicole.cairns@health.ny.gov
Jennifer Duhon (2019*) **Present**	Other	Millipore Sigma	307-3897218 jennifer.duhon@sial.com
Matt Sica (2020) **Present**	AB	ANAB, ANSI-ASQ National Accreditation Board	msica@anab.org
Dixie Marlin (2018*) **Absent**	Other	Marlin Quality Management, LLC	513-309-3593 marlinquality@gmail.com
Gil Dichter (2018*) **Present**	Other	IDEXX Water	207-556-4687 gil-dichter@idexx.com
Patrick Garrity (2019*) **Absent**	AB	Kentucky DEP	502-319-4040 patrick.garrity@ky.gov
Michella Karapondo (2019*) **Present**	Other	USEPA	513-569-7141 karapondo.michella@epa.gov
Fred Anderson (2020*) **Absent**	Other	Advanced Analytical Solutions, LLC	Fred@advancedqc.com
Jennifer Mullins (2020*) **Present**	Lab	Upper Occoquan Service Authority	jennifer.mulllins@uosa.org
Scott Haas (2020*) **Present**	FSMO	Environmental Testing, Inc.	405-401-7344 shaas@etilab.com

Attachment B

Action Items – TNI PT Executive Committee

	Action Item	Who	Date Added	Expected Completion	Actual Completion
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. 4/20/17: Ilona will look back in minutes to find the original issue and send to Maria.
295	Moved from Backburner: PTPA Evaluation Checklist needs to be updated prior to next round of evaluations. (Originally discussed 8/6/13)	Shawn Ilona		9/15/17	In Progress (will use 2009 TNI Standards and current SSAS Standards)
349	Review LAMS/FoPT Table Differences document. Provide comments by email and next meeting.	ALL	4/20/17	4/25/17	In Progress WET is still being reviewed.
352	Moved from Backburner (originally discussed 2/20/14) : 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. Patrick commented that it would make sense to look at changes to pass/fail rates 6 months after new limits are	All	2/20/14	TBD (see #350)	In Progress – Update of SOP 4-101

	Action Item	Who	Date Added	Expected Completion	Actual Completion
	effective. This possible addition to procedures should be evaluated when updating the limit acceptance SOP.				
353	Discuss possible procedural changes to how limits are updated. Maria talk to SOP Subcommittee. (Need to look at PT database implications.)	All		TBD	In Progress – Update of SOP 4-101
358	Send request to SOP subcommittee to consider what happens when ARA's are rescinded. There is no formal process.	Maria	6-29-17	7/19/17	Maria will resend to Gil and this item will be closed.
361	Analyte Code changes needed in LAMS. (TKN)	Maria Dan Hickman	7/20/17	9/30/17	Still need to look into TKN issue.
362	Setup meeting with NELAP AC to discuss issue on differences between LAMS and the FoPT tables.	Maria	7/20/17	9/30/17	Complete
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.				
366	Discuss attending NEFAP AC meeting with Lynn to talk about procedures for making changes to tables.	Maria	8/24/17	9/1/17	Complete
368	Forward Jerry's question to Chemistry FoPT Subcommittee. (Analyte code change for the non-polar extractable materials.)	Maria	8/24/17	9/1/17	

	Action Item	Who	Date Added	Expected Completion	Actual Completion
369	Send copy of Combined Evaluation SOP and comments to committee remembers and request final comments.	Maria	9/21/17	9/22/17	Complete
370	Inform Rami of decision to move WET PT issue to PT Expert Committee.	Maria	9/21/17	9/28/17	Complete
371					

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	In Progress
11	Evaluate how labs are accredited for analytes that co-elute.	5-19-11	
13	Charter needs to be updated in November.	Ongoing 2017	
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.	6-29-17	

Attachment D – Complaint #27

Description of Issue

[Our laboratory's final report for a PT study] shows an unacceptable result for 4,4'-DDD.

We reported a value of 7.2 ug/Kg and PTP true value was zero.

[The lab's] reported value comes from the breakdown of DDT to 4,4'-DDD which typically occurs in the chromatographic column.

Up to 15% breakdown is allowed before it becomes necessary to take corrective action (instrument maintenance) and we routinely narrate DDT breakdown in our reports to clients when this occurs, as is required by the Standard.

In the case of PT studies, the TNI 2009 Standard EL-V1M1, Section 5.2.1(a),(i) states "A result for any FoPT at a concentration above or equal to the lowest calibration standard shall be reported as the resultant value". We followed this rule and reported the 4,4'-DDD value resulting from DDT breakdown (since our low calibration standard for 4,4'-DDD is 5.0 ug/Kg).

It may be that other labs who submitted data either ignored the breakdown product and reported zero, or used a low calibration standard value (x) for 4,4'-DDD which was higher than their breakdown amount, thus enabling them to report "< x", thereby getting a passing result.

However, since we followed the Standard, we appealed the unacceptable result to the PTP and requested that the finding be reversed

[Our lab's] technical department agree that DDD is a breakdown product of DDT and also that [our lab's] reported value is less than the acceptable breakdown criteria for the analysis method based on the gravimetric value of DDT in the sample.

However, they [the PTP] state that the TNI Standard does not permit them to reverse the failing grade.

If this is the case, what happens next time a PTP provides a PT study sample with a significant amount of DDT in it and no 4,4'-DDD present? Labs will be in the same position of having to report a value for 4,4'- DDD because of DDT breakdown when the assigned value is zero, which means labs who follow the rules will fail the study again.

I might also add that there may be other analytes with similar problems:

Endrin breakdown to Endrin Aldehyde and Endrin Ketone DDT breakdown to DDE, as well as DDD Endosulfan breakdown to Endosulfan sulfate

Description of Actions

The PTP advised us to approach TNI for resolution of this issue, which I am now doing. Just got PaDEP's new regulations and spotted the following:

• § 252.304—Personnel Requirements: All DOCs (initial and continuing) must be at a concentration in the lower half of the calibration curve.....

Since we use PT study results for Ongoing DOCs, might not the PTP's be justified in in limiting the analyte level in a study accordingly? This would help in the DDD breakdown situation?

Description of Remedy Sought

In summary, since we followed the TNI Standard, we wish to appeal the unacceptable result and request that TNI rule in our favor. Recommend that TNI should investigate and publish a technical solution to this dilemma

E-Mail Discussion among PTPEC Members regarding Complaint #27, Oct 11-17, 2017

1) Maria Friedman, 10-11-2017:

Hello everyone,

In our last PTPEC meeting, I mentioned that there is a complaint that we need to review and address. Attached is a redacted version of the complaint; I took out info that identified the lab or PT Provider. Please review and send comments. This topic will be in our next meeting's (10-19-2017) agenda.

Thank you.

2) Gil Dichter, 10-12-2017:

Good Morning Maria: I cannot comment specifically on this analyte. However, I assume we will try to obtain from the PTP results of this study and if other labs had similar issues. Is their claim valid about the breakdown of the chemical and their lowest detection level? I realize I am looking at this from afar and others with experience and expertise will be able to look at his more in depth than I. I look forward to the expert's responses.

Thanks Gil

3) Eric Smith, 10-12-2017:

Two bits of information I didn't see referenced in the complaint– 1) What was the gravimetrically assigned value for DDT in the PT sample?

2) Information on the breakdown check standard on the instrument on the day the PT was analyzed.

Are we to assume their instrument was meeting breakdown criteria at the time the PT was analyzed? I may have overlooked this information, but I read through the complaint twice and didn't see it.

I don't know how much weight that additional information would ultimately

have on the overall discussion. However, I did want to mention my observations just in case the committee thought it might be good to obtain that information prior to discussion.

Eric Smith

4) Maria Friedman, 10-12-2017:

I will make a list (in case others would like to see other supporting docs) and notify lab.

5) Susan Jackson, 10-12-2017:

I agree with Eric on those questions. And I was a little confused about the request. Are they saying that they think DDT in the sample itself had broken down to DDD? Typically this breakdown occurs at higher temps with the instrument in the inlet and the column. I assume the PT provider would have tested the sample and seen if there was any breakdown prior to the study? Like Eric suggested, more information on the results of the breakdown standard would help.

Thanks, Susan

6) Dixie Marlin, 10-12-2017:

Good Morning! I'm sorry that I won't be able to attend the upcoming conference call as I will be on an assessment at that time. I apologize for my absence!

I will say, that the complaint from this laboratory does bring up an interesting point and it may be necessary for the committee to review the PTRLs for all the degradation products (4,4'-DDE, 4,4'-DDD, endrin aldehyde and endrin ketone) for acceptability on the FoPT tables.

Please bear with me here and consider the following:

It appears that the PTRL from the FoPT tables for 4,4-DDD in soils is set at 5ug/kg with a spiking concentration range of 5-500ug/kg, but, for example, if the DDT is spiked at the upper extreme of the expected spiking

concentration range from the FoPT table, which is also 5-500ug/kg, then allowing for the 15% breakdown (per the reference method) to be solely attributed to DDD, would yield a DDD concentration of 75ug/kg, even if the analyte was not spiked. A concentration of 75 ug/kg is well within the expected spiking concentration range for DDD (5-500ug/kg) and well above the DDD PTRL (5ug/kg) and would be perfectly reportable in the study.

I think another good question for the lab would be what was the total breakdown in their degradation check? In other words, what was the percentage of both DDD and DDE from the breakdown of DDT in the check standard. Their complaint only attributes breakdown of 15% to DDD, from what I read, and if the laboratory's breakdown for DDD was 15%, they could not have seen any breakdown to DDE, or they wouldn't meet reference method requirements. Allowable breakdown in the reference method is a combination of both DDD and DDE at 15%.

You might also want to ask the lab if they had a measurable DDE concentration in the PT sample (but then it may have been spiked in the PT and if so, should have shown a high bias in the recovery in the PT, if breakdown in their analytical system was an issue)?

Even so though, if as in my above scenario shows, if the DDD and DDE combined breakdown was evenly distributed at 7.5% for each analyte and allowed at 15% total, considering the concentration at the uppermost spiking concentration for DDT at 500ug/kg, the DDD percentage would still be 37.5 ug/kg, which would still be within the expected concentration range for DDD and would be above the current PTRL for DDD so again, it's reportable in the study.

It seems like an easy fix for the committee to consider would be to raise the PTRL for all the degradation products to something like 75 ug/kg or similar.

Now, having said all that, I don't know of a laboratory that would allow for that much of a breakdown when analyzing samples, standards, PTs, etc., but the reference method does allow it and evidently, this lab does as well so more may. I would think their check standards and LCSs would fail, but maybe not in a "perfect storm" scenario.

Just my thoughts, take them for what they're worth (a penny maybe!?!) ;) I hope this helps and sorry again for my upcoming absence.

Kindest Regards, Dixie Marlin

7) Nicole Cairns, 10-12-2017:

I too may not be able to make the call next week. I have grand jury duty every Thursday and never know if there will be cases to hear...good times.

Anyway, with regard to the complaint that we received. The lab is requesting two outcomes: 1. Overturn the unacceptable PT result

We as a committee cannot overturn the scoring of a PT Provider even if we agreed with the lab. The PT Provider was following the FoPT table and Volume 3 standard as written. And even if they were not, we still cannot overturn the PT Provider's score as the lab is wishing us to do. The lab should be advised to take their complaint to the PT Provider's PTPA, where unfortunately I don't think they are going to see a different outcome as the PT Provider was following the standard. But, I would also recommend that the lab be advised to take this matter up with their AB, as the AB does have the ability to evaluate a PT score differently. Unfortunately, while it appears that the lab was reporting the PT result as instructed by the standard and within the confines of the method, I don't believe that there is a whole lot we can do to help them with their score in this particular study. It is an unfortunate disconnect between the FoPT tables, Standard, how the labs are instructed to report the PT results, and how the PT Providers are instructed to score them. Looks like both parties were following the rules, but the lab is being penalized as a result. Not a good thing.

2. Investigate and publish a technical solution to the dilemma

The committee should definitely investigate this issue and consider modifications to the FoPT tables and/or Standards to address this disconnect. I actually already had this on the PTEC to-do list for the next round of standards as Matt Sica brought this issue up during his PTPA presentation in DC, but it may be more appropriately addressed on the FoPT

tables as it is an issue in scoring for specific analytes, not a general scoring rule.

Some 1. 2.

3.

4.

of the things to consider when reviewing this issue: What are the expectations of the ABs? They need to be brought into the conversation.

What methods are being used and what breakdown allowances are involved? Percent breakdown is not the same in all methods. This issue effects both nonpotable water and solid waste.

How do labs handle breakdown in reporting of sample data? Is it reported with or without qualification?

What are PT Providers doing/seeing with regard to these groups of analytes? How are they handling it? How extensive is this issue?

This is are part of the conversation.

definitely an issue that needs to be discussed and we need to ensure that all of the stakeholders

Thank you. Nicole

8) Maria Friedman, 10-17-2017:

The PTPA investigated the issue earlier this year, as reported in Matt's presentation to the PTPEC at our public meeting in DC. The PTPA concluded that both the lab and the PT Provider had complied with the requirements of the TNI Standard. The lab still wanted to pursue the matter, and so they filed a complaint in accordance with TNI's complaint resolution process.

Now that the ball is in our court, it is incumbent upon us to follow our procedures per our SOP on Complaints (4-102). The next step will be to

notify the lab that their complaint is under consideration by the PTPEC, and then form a three-member subcommittee from the PTPEC to investigate the matter and formulate a recommendation. I will take care of the notification, and we will further discuss the complaint and establish a subcommittee at Thursday's PTPEC meeting.

Thank you. Maria Friedman