TNI WET and PT Expert and PTP Executive Committees Joint Session
Forum on Environmental Accreditation

Special Session Summary
January 25, 2021

1. Roll call:

Shawn Kassner (Chair, PTPEC), Rami Naddy (Chair, WET) and Kirstin Daigle (Chair, PT Expert), called the special joint session to order at 2pm Eastern on January 25, 2021 by teleconference/Webex. Meeting attendance included:
Shawn Kassner
Bob Wyeth
Chrissy Pottios
David Caldwell
Ginger Briggs
Ila Meyer-fritzsche
Kirstin Daigle
Lynn Bradley
Marie Wu
Marlene Moore
Michele Potter
Nicole Cairns
Pete Delisle
Rachel Ellis
Rami Naddy
Sennett Kim
Thekkekalathil Chandrasek
Tim Miller
Amy DeMarco

Special Session Agenda:

1) Call to order and roll call

2) Double-check receipt of documents to be referenced in this teleconference

3) Lay out objectives of the meeting

4) Review the WETT Committee Input

   a) Are these inputs appropriate to be adopted by TNI for the PT program?

   b) Where should these inputs be adopted?

      i. TNI V1M1?

ii. TNI Volume 3?
iii. FoPT Table for WETT?
iv. V1 WETT Module?

c) What is the best approach?

5) Develop next steps and milestones

There were 67 participants in the meeting today.

2. Discussion

Shawn confirmed everyone received the documents for today.

The purpose of today's joint session is to try to address the WET Committee's concerns about improving data comparability for WET PT samples.

There was a WET FoPT Subcommittee in the PTPEC a number of years ago, but when the WET Expert Committee was developed, the members of the Subcommittee became part of the Expert Committee.

Shawn shared the document that can be found in Attachment A. The document includes suggestions and Shawn has separated it into where items could be put into the Standard.

When Shawn first looked at the top of the document, it appeared that putting them in the FoPT tables might help, but it was realized the tables are not used by labs and a more appropriate place to put the information would be in Volume 1 Module 1.

WET PTs are different. PT providers have to average all the results of the data they receive. That is how they determine the correct value. This is what it is important to reduce the variability in how labs perform the tests. This is why it is important to get these with the same experimental design.

Many people use the DMRQA for their PTs. Pete (WET, Vice-Chair) thinks this is the only option left.

There was a question of whether these items belong in Volume 3. The idea is to put it in Volume 1 so the labs can see it. These are lab requirements.

The suggested changes are supposed to help make the PTs more consistent with less variability.

Rami noted that a challenge is that dilution waters, test concentrations, number of replicates, etc … are all variables that can impact the result. Rami would like to see these variables standardized.

Rami noted that they see different instructions sent out by each PT Provider. It would be great if the same instructions could go out.

Shawn asked that this information be sent to PT Expert so it can be added to the Standard. Kirstin's group is already looking at changes to the Standard. Ilona asked if this will happen quick enough and was told it would not be a problem.

Need to talk about a WET FoPT Subcommittee offline. There is some confusion as to whether one exists now.

Shawn then read through the suggestions for WET Module 7

PMSD – Percent Miniumum Significant Difference.

It was commented that if instructions on how to do WET PTs are in the PT Module, shouldn't other PT sample instructions also be added to the PT module?

There should be something in the Standard that says PT Provider needs to include instructions. This is already in there. No change needed.

It was noted there are instructions for PCBs in Module 1.

Oregon would prefer that instructions be in the FoPT table. They are enforceable by the ABs.

Shawn commented that labs don't usually see the FoPT tables. Lynn Bradley noted that the NELAP AC would prefer it not be in the tables because labs can't see it.

Tim Miller questioned #1. He thinks if it is in Volume 1 - they don't need to put in instructions. Item 1 is already in the Standard - labs have to follow PT instructions.

Rami noted that Number 1 and 2 go away because they are already in the Standard. Shawn striked the language – see Attachment A.

It was asked what is meant by document? Do they have to report it to the PT providers? Or is it documentation that needs to be available in the lab for review during audits?

Rami noted to put the additional QC requirements in Module 7. They would like to do away with NOEC, but if you are going to have it ... need PMSD data. Rami commented this is for all their testing, not just PTs.

PMSD is lower for less variabile data. Is that a negative for labs with less variability.

A suggestion was made for Module 1: If adding to the PT module, maybe say why it is being done for WET PTs specifically.

Actions:
- WET will work on adding items 3-6 as outlined in Attachment A to Module 7.
- PT Expert will work on adding items 1-3 at the top of Attachment A to Module 1.
- There was a agreement that the WET FoPT Subcommittee needs to be pulled together.

Last item to discuss today: NOEC (No Observed Effect Concentration) analytes and removing them from the table. They are currently part of the DMRQA program.

Rami asked Shawn to pull up the presentation included in Attachment B and Rami summarized the presentation.

Slide 8 gives you an idea why you can't run PTs by the permit. Shawn thinks this slide would help to get EPA to understand the number of permutations.

The presentation concluded:
- WET DMR-QA
    - Standardize the test methods used in performing the DMR-QAs / PTs
        - not per the permit
- Chronic Endpoint for DMR-QA / PT
    - Use IC25 as the primary endpoint
        - Drop NOEC

Though we are not solving the issues today, we are taking steps forward to solve it.

Shawn summarized:

- Send standardized requirements to the PT Expert Committee for addition to Volume 1, Module 1.
- WET FoPT Subcommittee needs to work on this and send recommendations to the PTPEC.
- WET Expert Committee needs to add items 3-6 to Volume 1, Module 7 for just good quality control purposes.
- Use slide 8 of Rami's presentation to help EPA understand the number of possible permutations if permits are used.

There was agreement these are the next steps. Though we are not solving the issues today, we are taking steps forward to solve it.

Attachment A

WETT EC Input for consideration

These are suggested steps to standardize PT instructions for Whole Effluent Toxicity DMR-QA/PT testing to assure and increase the comparability and usefulness of the data generated the studies.

Suggested steps include: These can be included in the FoPT table for requirements. (Volume 1 Additions)

1. Standardize the required number of replicates per test.
2. Standardize the required number of organisms per replicate.
3. Standardize and reduce the age range of test organisms used in the following tests:
   a. DMR-QA Test code 13 and 14 (EPA Method 2000): Pimephales acute tests reduce age range from 1 – 14 days down to 1 – 5 days with a 24 hr range in age.
   b. DMR-QA Test code 46 (EPA Method 2004): Cyprinodon acute test reduce age range from 1 – 14 days down to 1 – 5 (or other such consensus range) days with a 24 hr range in age.

The following additional suggested steps may be best placed into the TNI standard as requirements for the labs to implement. (Volume 7 Additions)

~~1. Require labs to affirm that DMR-QA/PT tests were conducted according to the specified test conditions listed in the PT instructions.~~
~~2. Require labs to document if any deviations from required test conditions occurred and whether a deviation invalidated the test or not. Some deviations from test conditions would invalidate a test such as incorrect number of replicates used, incorrect number of test organisms per replicate, incorrect test organism age, etc. would not.~~
3. Require labs to document each test's test acceptability criteria data, for example:
   a. For the negative laboratory performance control in acute tests, document the % survival.
   b. For the negative laboratory performance control in chronic tests, document the % survival and the mean weight per surviving test organism or the mean 3rd-brood reproduction per surviving C. dubia.
4. Require labs to document the sublethal PMSD evaluation for tests where PMSD bounds are established in the EPA test method and when a chronic NOEC test endpoint was reported.
   a. If a test's PMSD is less than or equal to the lower PMSD bound for the test method reported, then the lab must document that the relative % difference from the control of each test concentration tested and that the % relative difference reported for the NOEC is greater than the lower PMSD bound.
   b. If a test's PMSD is above the maximum PMSD bound for the test method, then the NOEC shall not be reported.
5. Require labs to document the evaluation of interrupted dose-response curves for tests where an interrupted dose-response occurs and an NOEC test endpoint is reported. The lab shall document the statistical significance or non-significance of every test concentration subsequently to the PMSD evaluation in #4 above
   a. Lab shall evaluation dose-response curves per EPA 821-B-00-004 Method Guidance and Recommendations for Whole Effluent (WET) Testing (40 CFR Part 136).
6. Require labs to document the source of test organisms used in a DMR-QA/PT test.

Attachment B: Rami's Presentation

Attach PDF