Whole Effluent Toxicity Testing Expert Committee Meeting Summary

April 20, 2016 1 pm Eastern

1. Welcome, Roll Call, Approval of Minutes and Announcements

In Rami's absence, Vice Chair Pete de Lisle welcomed everyone to the meeting. Minutes of the March 23, 2016, meeting were approved, with Elizabeth West abstaining. Attendance is recorded in Attachment 1, below.

Lynn noted that the WET Chapter of the updated QA Manual, prepared by TNI's Advocacy Committee, has been sent for final editorial review. Ginger, Elizabeth and Beth made substantial contributions to this chapter when they reviewed it several months ago.

2. Assessment Forum

Committee members working to prepare the WET session for this summer's Assessment Forum met immediately before this committee meeting to discuss planning for the morning session on August 9. Ginger will be the lead presenter and the afternoon committee meeting session can be used for further discussion on the topic, if needed. The timing of this call worked well and will be repeated immediately prior to the May WET meeting.

The focus of the session will be what to look for in an audit, while addressing traceability and differentiating WET from chemistry assessments. Chris Burbage will be a resource for cross-walking between chemistry and WET disciplines, and the presenters will discuss areas where California's WET labs need different practices than other areas. Also, a number of documents and presentations have been identified as resource materials for this session: Rami's presentation to ELAB (March 2016), the glossary prepared for WET, a checklist used by VA DEQ (from Steve), a presentation Beth did for DOECAP about traceability, and materials from a presentation to the NELAP AC's Assessor Call in 2014.

We also discussed timing needed for final products – a draft presentation (reviewed by this committee) will be due a month prior to the meeting with the final version to be submitted a week beforehand.

3. PTPEC Representative

John noted that the PTPEC asked to have WET look at the FoPT tables to see if the new DMRQA guidance conflicts with established content, and specifically requested an explanation for the confusing circumstance of reporting a NOEC greater than 100 percent. John will return comments to PTPEC at its next meeting.

4. Glossary

No one was available to update this item.

5. Self-Audit Checklist Coming for Committee Review of Draft

Lynn explained that TNI's Quality Management Plan is about ready to emerge from Policy Committee and be presented to the Board for final approval. This document has been "in development" for several years, and the internal audit implementation will involve annual self-audits by each committee, plus audits by a TNI staff or volunteer not involved with the program being audited on a five-year cycle. Some areas will receive external audits as well, such as finance and standards development (for ANSI certification.)

The committee self-audit will be performed with a checklist that has requirements for all committees in the first part plus a second part tailored to committee-specific SOPs and policies. Things like timely writing and approval of minutes plus posting them to the website, maintenance of committee rosters (maximum term limits and so forth) and other administrative matters are the substance of the checklist. The draft checklist for WET will be provided to the committee for review, with at least a 1-month turnaround time, within the next few months.

6. WET as a Resource for Method Refinements and Recommendations

At the March meeting, Rami sought input about whether this committee was interested in assuming the role of resource for method refinements and recommendations. As summarized in those minutes, the group finally reached consensus that an appropriate type of response, for questions that the committee chooses to address, would be to provide our "thoughts" on the question with a federal or state regulatory contact for an official answer.

The questions prompting this discussion were distributed for discussion today and are included as Attachment 3. Discussion points are noted below.

Q1 – is randomization necessary

- Randomization is already dealt with in V1M7
- The lab being assessed did not appear to be randomizing
- Introduction of Ceriodaphnia into cups is done randomly within each block, but if the auditor was not familiar with the practice, auditor may not have recognized the procedure as "randomizing." The auditor should compare the practice observed to the lab's SOP and how it describes adding test animals and the location of test chambers
- If not randomized test validity can be questioned. It's the permittee and eventually the regulatory authority that must sign off on the validity of the test
- If the SOP is detailed, it's adequate for the report to say they're following the SOP

Q2 – evaluating test validity in light of non-randomization

- The results would be scientifically invalid due to the statistics being based on non-random testing

Q3 – evaluating test validity re other aspects

- Test results may still be used if the test had some imperfections, but the client's judgment about validity is what matters, not this committee's opinion
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Q4 – reproduction rates are extremely consistent

- Is there cause for suspicion, or is the lab just doing really good work? The latter is considered possible by participants in the discussion

Q5 – what should be identified as concern in an audit

- Consensus of participants is that absence of randomization should be a finding, provided there is objective evidence of that lack

General comments

- Labs maintain their certification but the permitting authority oversees the permittee, so that the answer about acceptability of the data needs to emerge from discussion between the two authorities
- The AB cannot make any determination about method validity but it can require a corrective action so that the lab follows its method SOP
- The standard does require qualifying data if a method variance is found (V1M2 §10.3.1)

- It is possible that the permittee never learns of short-cuts taken by the lab if method deviations are not discussed in the report or detected by the auditor
- Per EPA, the regulatory agency makes the final determination of invalid tests, in its decision whether or not to accept the data, but the study must be reported. There is no cookie-cutter solution, only case-by-case

7. Revising V1M7

Pete asked if there were any additional volunteers to champion revisions of the WET module. Steve, who previously volunteered to take on the DOC section, noted that he's not yet invested much time into that. John offered to work on the chemistry aspects, hopefully with another committee member who will volunteer. Additional volunteers are still needed to address improved specificity for the test methods.

There was no new business. Chris Pasch moved that the meeting be adjourned. There were no objections.

8. Next Meeting

The WET Expert Committee will meet again on Wednesday, May 18, 2016, at 1 pm Eastern. Teleconference information and an agenda will be circulated in advance of the meeting.

Attachment 1

Committee Membership

Member	Affiliation	Email	Phone	Category	Term Expiration	Present
Rami Naddy (Chair)	TRE Env. Strat. LLC	naddyrb.tre@gmail.com	970-416-0916	Lab	Feb. 2018	No
Ginger Briggs	Bio-Analytical Laboratories	bioanalytical@wildblue.net	318-745-2772	Lab	Feb. 2018	Yes
Pete De Lisle (Vice Chair)	Coastal Bioanalysts Inc.	pfd@coastalbio.com	804-694-8285	Lab	Feb. 2018	Yes
Steven Rewa	Environmental Resources Management	steven.rewa@erm.com	616-738-7324	Lab	Feb. 2018	Yes
Chris Burbage	Hampton Roads Sanitation District	cburbage@hrsd.com	757-355-5013	Lab	Feb. 2018	Yes
Chris Pasch	Alan Plummer Associates, Inc.	cpasch@apaienv.com	512-687-2162	Other	Feb. 2018	Yes
Teresa Norberg-King	USEPA	norberg-king.teresa@epa.gov	218-529-5163	Other	Feb. 2018	No
Elizabeth West	LA DEQ LELAP	elizabeth.west@la.gov	318-676-7457	AB	Feb. 2018	Yes
Amy Hackman	Penn. Dept. Environ. Protection	ahackman@pa.gov	717-346-8209	AB	Feb. 2018	Yes
Michele Potter	New Jersey Dept of Environ Protect.	Michele.Potter@dep.nj.gov	609 984-3870	AB	Feb. 2018	No
Michael Pfeil	Texas Comm. Environ. Quality	Michael.pfeil@tceq.texas.gov	512-239-4592	AB	Feb. 2018	Yes
Kari Fleming	WI DNR	kari.fleming@wisconsin.gov	608-267-7663	AB	Dec. 2017	Yes
Associate Members						
Kevin Dischler	Element Materials Technology	Kevin.dischler@element.com	337-443-4010	Lab (Assoc.)	---	No
Monica Eues	CK Associates	Monica.eues@c-ka.com	225-923-6946	Lab (Assoc.)		Yes
Barbara Escobar	Pima County RWRD, CRAO Laboratory	Barbara.escobar@pima.gov		Lab (Assoc.)	---	Yes

Melinda Hooper	Englewood Water District, Florida	hoopermelinda@gmail.com		Lab (Assoc.)		No
Robert Kelley	ETT Environmental Inc	bobkelley@ettenvironmental.com	864-877-6942	Lab (Assoc.)	---	No
Brian Krausz	USEPA	krausz.brian@epa.gov	202-564-3069	Other (EPA)	--	No
Jennifer Loudon	Raritan Township Municipal Utilities Authority	JLoudon@rtmua.com	908-787-7453 x 19	Lab (Assoc.)	---	No
Vel Rey Lozano	USEPA Region 8	Lozano.VelRey@epa.gov	303-312-6128	Other (EPA)	--	No
Robert Martino	QC Laboratories	rmartino@qclaboratories.com	267-699-0103	Lab (Assoc.)	---	No
Jamie Mitchell	Hampton Roads Sanitation District	jmitchell@hrsd.com	757-460-4220	Lab (Assoc.)	---	No
Linda Nemeth	Northwestern Aquatic Sciences	lnemeth@tds.net	541-265-7225	Lab (Assoc.)		Yes
Mark O'Neil	Environmental Enterprises USA, Inc.	moneil@eeusa.com	800-966-2788	Lab (Assoc.)	---	No
Marilyn O'Neill	Nautilus Environmental	Marilyn@ nautilusenvironmental.com)	858-587-7333	Lab (Assoc.)		No
John Overbey	American Interplex Corp.	joverbey@americaninterplex.com	501-224-5060, ext. 209	Lab (Assoc.)		Yes
Joe Pardue	Pro2Serve	Parduegjjr@oro.doe.gov	423-404-4117	Other	---	No
Peter M Paulos	Atkins Environmental Toxicology Lab	Peter.Paulos@atkinsglobal.com	713-292-9023	Lab (Assoc.)	---	No
Katie Payne	Nautilus Environmental	katie@ nautilusenvironmental.com	858-587-7333 ext. 212	Lab (Assoc.)		Yes
Beth Thompson	Shealy Consulting	bthompson@ shealyconsulting.net	803-808-3113	Lab (Assoc.)		Yes
Tom Widera	ERA	twidera@eraqc.com	303-463-3536	Other		No
Program Administrator						
Lynn Bradley	TNI	Lynn.Bradley@nelac-institute.org	540-885-5736			Yes

Attachment 2

Action Items

	Action/Activity	Responsible Person(s)	Anticipated Completion	Comments
1	WET session for Assessment Forum – determine content and presentation format for one 60-minute & one 90-minute block	Ginger/Elizabeth w/ Rami, Teresa & Katie/Marilyn to work w/ Barbara & LASEC	August 2016 conference in Orange County, CA	
2	Review questions distributed with minutes, for discussion at April 20 meeting	All members	April 20 meeting	See discussion summarized in April 20 minutes
3	Review V1M7 for needed revisions	Steve – DOC Additional volunteers needed for other sections	Ongoing	Formal revision cannot yet begin
4	Develop checklist for WET assessors, possibly for use with Assessment Forum	TBD	Discuss at April 20 meeting	Reference WET portion of current QS checklist
5	Review discussion of questions, Item 6 in April 20 minutes	All members	May 18 meeting	Please review to ensure that content is accurate!
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Attachment 3

Question submitted to the WET Expert Committee chair, prompting the discussion about whether WET should take on the role of providing advice about method refinements and recommendations

Problem:
A lab used to include in the report language stating that a WET test was conducted as follows:

7-day *Ceriodaphnia dubia* survival and reproduction test (EPA Method 1002.0). Test organisms, procedures and quality assurance requirements were in accordance with the EPA manual, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving.

Lab reports do NOT specify test chambers are randomized and it appears (based on in-lab observation) they are not.

Questions
1) Is randomization necessary or can the lab justify conducting the test without randomization?

2) Should passing or failing tests be considered invalid without demonstration of randomization or if they are not adhering to other items in the Method?

3) Should passing or failing tests be considered invalid without demonstration adherence to the specific items identified in the Summary of Test Conditions tables in the Method? [Randomization is not included the Summary of Test Conditions tables]

4) The average reproduction in all passing tests in all dilutions and control water is always (observation in over 20 tests in over 3 years) between 22 neonates/adult and 25 neonates/adult. Is that a concern and if so how should it be addressed?

5) Should an official audit identify either 1) or 4) as a concern?

The lab reports are otherwise complete and comparable to other reports. A lab visit was conducted and it appears to be well maintained, organized, and professionally run lab. It has been NELAC certified for years. The lab does report occasional WET test failures, however, it appears that is less frequent than other labs.