

Whole Effluent Toxicity Testing Expert Committee Meeting Summary

December 2, 2015 1 pm Eastern

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

Rami Naddy welcomed everyone to the meeting. This was an “extra” meeting to consider a recommendation about which version of the WET module of the TNI Standard will best address the needs of the WET lab community, so that recommendation can be shared with the Laboratory Accreditation Systems Executive Committee (LASEC) for transmittal to the NELAP Accreditation Council (AC,) prior to the planned adoption of the new revisions to the ELSS in early 2016.

Minutes of the November 18, 2015, meeting were approved. Attendance is recorded in Attachment 1, below.

2. Review 2009 and 2012 Versions of WET Module to Determine Which Best Meets Needs

Discussion at the previous meeting raised concerns about which version of the WET module (V1M7) of the TNI Standard would best address the goals and priorities formulated by this committee. Rami had asked committee members to please review both versions (using the redline/strikeout as distributed)

Prior to this meeting, Steve Rewa provided a working draft for a recommendation that favors retaining the 2009 version (see Attachment 2.)

Steve noted a conflict between §1.6.2 and §1.6.1.d in the 2012 version, where it seems that two different and mutually exclusive ways of accomplishing an initial demonstration of capability (DOC.) He also mentioned that while the 2009 version allows grandfathering of existing staff for the DOC, it is vague about how new staff are expected to demonstrate capability.

Participants agreed that the demonstration of capability should reflect normal procedure in WET labs, where a group of analysts perform each test – different tasks are done by different analysts according to their workloads and work schedules, since a test may last over a week – instead of one individual conducting the entire test, as would be done in, say, an analytical chemistry lab. Rami noted that many of the WET test methods are comprised of the same testing procedures, but using varied aquatic organisms as the test subjects. Essentially, a new staff person is trained by participation with the group, and learning the various steps of a test protocol as they are performed, rather than being individually trained for the shorter term (minutes or hours) tests as would be done in an analytical lab.

Participants agreed that the 2012 version is further from WET reality than the 2009 version, as well as being more burdensome and excessively costly for the lab, since it requires each new staff person to spend weeks or months performing DOCs for each test protocol. The “group” approach typically used in a WET lab is not normally utilized in an analytical lab.

All agreed that the industry would be best served by retaining the 2009 version until such time as this WET Expert Committee can develop improvements to the WET module that align with normal practices.

Participants also agreed that the requirement in the 2012 version (V1M7 2012 §1.7.1.6.e that all chemical measurements shall meet the requirements of the Chemistry module (V1M4 §1.4, 1.5, 1.6 and 1.7) is excessive. A WET lab may measure general characteristics (i.e., pH and conductivity) using portable equipment, but rarely would it have specialized analytical chemistry equipment. If quantitative chemistry is needed for some reason, those samples would typically

be sent to an accredited analytical lab. The purpose of WET testing is not to identify the individual components of the effluent mixture being tested, but rather to establish whether a discharged mixture (effluent) is sufficiently toxic that it warrants further investigation.

Next steps are that further comments should be sent to Lynn by Friday, December 4, and she will revise Steve's draft and forward to Rami for his further revisions. Rami will provide the revised draft to committee members by Friday, December 11, and hopefully, the committee will be able to approve a recommendation at its next meeting on December 16.

3. New Business

Teresa Norberg-King noted that she would like to address this committee, perhaps at its January meeting, to discuss some presentations from the SETAC meeting about organism testing and animal alternatives (instead of fish.) An EPA workgroup is being formed and she hopes to include some TNI representatives.

With a motion and a second, Rami adjourned shortly after 2 pm Eastern.

4. Next Meeting

The WET Expert Committee will meet again on Wednesday, December 16, 2015, at 1 pm Eastern. Teleconference information and an agenda will be circulated in advance of the meeting, along with the revised text of a recommendation about the WET module of the TNI standard.

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	Yes
Ginger Briggs	Bio-Analytical Laboratories	bioanalytical@wildblue.net	318-745-2772	Lab	Feb. 2018	No
Pete De Lisle	Coastal Bioanalysts Inc	pfd@coastalbio.com	804-694-8285	Lab	Feb. 2018	No
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	Yes
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	No
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. 2015	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.)		No
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.)	---	Yes
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
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.)		No
Beth Thompson	Shealy Consulting	bthompson@shealyconsulting.net	803-808-3113	Lab (Assoc.)		Yes
Program Administrator						
Lynn Bradley	TNI	Lynn.Bradley@nelac-institute.org	540-885-5736			Yes

Attachment 2

Hi Folks,

I took a stab at a first draft of a request to postpone adoption of the 2012 revision. These are my personal opinions, but from our recent discussions it sounds like most of us agree. I addressed some financial concerns for DOC tests that may not be appropriate. If the powers that be determine that cost shouldn't be an issue, this may put them in a negative frame of mind. The second section on the chemistry module needs some attention. I really haven't looked at the chemistry module and I'm not sure what the new requirements are that we need to address. My hope is that some of you who are more involved with that aspect can amend or rewrite it.

-Steve

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The Whole Effluent Toxicity (WET) Expert Committee would like to postpone adoption of the 2012 revision of module 7 of the TNI standard. The committee has two principal objections to the revision as it is currently written. It is the opinion of the committee that initial demonstration of capability for each individual analyst is not representative of the way toxicity labs operate and is therefore inappropriate. The committee also feels that requiring labs to comply with the requirements of the chemistry module for its support measurements is unnecessary.

Initial Demonstration of Capability

V1M7 1.6.2 states that an individual must successfully perform an initial demonstration of capability prior to using any method. However, V1M7 1.6.1.d states that an initial DOC may be completed by a group of analysts and is for situations in which several individuals perform part of a set of activities that would produce a testing result. These statements appear to be contradictory and clarification is needed at the very least.

Individual analysts rarely perform an entire test independently. Test durations are often in excess of a week making it difficult and impractical for an individual analyst to conduct an actual effluent test or reference toxicant test from start to finish. The demonstration of capability described in the test methods requires five successful tests using a standard reference toxicant. The committee feels that requiring an analyst to conduct five such tests as part of a demonstration of capability is unreasonable. Additionally, tests conducted using organisms that are not raised in the lab would require the purchase of test organisms from an outside supplier for five tests per analyst with no recompense, making a demonstration of capability cost prohibitive.

The committee believes that it is sufficient for the laboratory to develop a written training procedure for its analysts to determine when they are qualified to handle actual test samples and the laboratory as a whole should perform the demonstrations of capability. The committee's recommendation is to remove the references to "individual" in the standard and replace them with a phrase such as "analyst or group of analysts" which would be in agreement with V1M7 1.6.1.d.

Support Measurements of Chemical and Physical Parameters

V1M7 1.7.1.6. e) i states that all chemical measurements used in the course of monitoring toxicity shall meet the requirements of V1M4, sections 1.4, 1.5, 1.6 and 1.7. Complying with these requirements may be beyond the capability of many WET labs and it is the opinion of the committee that such rigorous requirements are unnecessary for the purpose for which these support measurements are intended.

Chemistry measurements related to WET testing provide general information on the characteristics of the effluent being tested. They are not intended to be used as definitive analysis of the chemical makeup of an effluent. The intention of WET testing is to determine if an effluent is toxic without the use of costly chemical analyses.

Many WET labs are not equipped with specialized analytical chemistry equipment preferring simple, portable equipment suitable for determining general chemical characteristics. The committee feels that such equipment calibrated according to the manufacturers' instruction should be suitable for the purpose of these measurements and that the language of the 2009 revision of V1M7 1.7.1.6. e) i should be retained.