Radiochemistry Expert Committee (REC)
Meeting Summary

September 24, 2014

1. Roll Call and Minutes:

   Bob Shannon, Chair, called the meeting to order by teleconference at 1pm EST on September 24, 2014. Attendance is recorded in Attachment A – there were 8 members present. Associate members: Ariana Mankerian, Bill Ray, Joe Pardue, Brian Miller, Reed Jeffrey, Yoon Cha, Carl Kircher, Ron Houck, and Terry Romanko.

   Minutes for the late August meeting will be distributed by email for review and vote.

   (Addition: A motion was made by Dave to approve the August 27, 2015 minutes. The motion was seconded by Carolyn. Vote: 6 – For (Bob, David, Nile, Keith, Tom, Carolyn) 0 – Against, 0 – Abstain, 5 – Missed voting. The motion passed and the minutes will be posted.)

   Associate members need to let Bob and Ilona know they own a copy of ISO 17025 so they can be included in distributions of the draft working standard updates.

2. Update on Committee Replacement

   Todd is retiring. Bob has not yet found any candidates and Ilona forwarded some suggestions from Marlene Moore. Bob is hoping to add an AB.

3. Standard's Review Council

   Bob received an email from Bob Wyeth (Chair of CSDP Executive Committee) asking that each expert committee nominate one member to participate on the Standard's Review Council. The SRC reviews all standards before they are finalized. The SRC looks for issues that conflict between standards. Bob asked that any interested parties contact him. Bob and Ilona responded to questions about time commitment.

   (Addition: Larry will be the Radiochemistry Expert Committee representative on the SRC. Email from Bob Shannon on 10/5/14.)

4. Chair and Committee Member Training

   This is training that was prepared as a Webcast at the last TNI winter meeting in Kentucky. All Chairs must attend this training and it is recommended that all committee

members also download the Webcast and review it. Sharon Merten should be notified when the training is taken.
Website: http://nelac-institute.org/eds/download/ChairTraining.php

5. Preliminary Schedule for Crystal City

Bob forwarded the schedule he received.

6. Richard Sheibley's Comments

Richard sent the following comments on 9/19/14:

I would like to withdraw my original comment about potential conflicts. I may have other comments as we move forward with proposed changes.

When we get more details on the proposed changes to "analytical batch" I am sure I will have more comments. One for now is I think we really need 2 definitions, the original TNI definition and a modified Rad only definition. See comments below.

Here are some comments on the current WDS - most are editorial in nature:

1. Definition Activity, Absolute Note: Minor grammatical change - add "or" after curies (Ci), "and" after (dpm) so it reads curies (Ci), or disintegrations per minute (dpm) and multiples, etc.
2. Analytical batch: What are we going to call an instrumental "analytical" batch that does not meet the new definition but will still be used by labs? Examples are LSC, GPC, etc See later comments on analytical batches.
3. Counting Uncertainty - delete assuming so it reads (often estimated as the square root of counts)
4. Section 1.3.2 is "QA/QC" defined anywhere?
5. Section 1.5.1 f) - minor rewording - "accredited TNI PT or ISO 17043 proficiency test provider, accredited ISO/IEC Guide 34 reference material provider, or from an ANSI N42.22 compliant provider"
6. Sections 1.7.1.4.c)& 1.7.1.6.b) and maybe others may need some rewording after a final decision is made on "analytical batch." This section limits the time frame to 7 days. This is an example of where we may have problems with revising an existing TNI definition. What about "direct count extended analytical batch" and keep the original definition? We could have 2 terms.
7. Section 1.7.2.1.d) - I think the lab should have a written SOP describing how they implement an extended analytical batch. The SOP should include the types of samples which can be added, what happens when daily QC fails, etc. As I said previously, I think the batch can only continue as long as one sample type is in the batch and the sample counting is done contiguously without interruption - not sure how weekends would impact this concept.

8. Section 1.7.2.6.d).iii - I can not support including a section requiring confirmation or testing of CRMs obtained from an NMI or an accredited G34 RM provider. I also doubt many labs will have the time, facilities, or expertise to set an expiration date other than the one provided by the accredited provider. NMIs and accredited G34 reference material providers are required to demonstrate traceability, homogeneity, and stability of RMs. A G34 provider's procedures and data are extensively reviewed by AB assessment teams. Either we have faith in the process of accreditation or we don't. We must demonstrate trust in accreditation process in our written standard requirements. That said, a lab may choose to verify every standard received as part of their acceptance of critical supplies, V1M2 Section 4.6.2.

Comment 6:

Richard is not aware of any labs that put two preparation batches together in an analytical batch – but he thinks this should still be addressed in the standard.

Richard reads the language in this section as a single preparation batch, but Larry thinks it allows for more. Bob reminded everyone that this is just for automated sample changers.

Richard thinks the language prevents a lab from running over the weekend or instrument QC needs to be run between multiple batches. Vas noted that many commercial labs bring a person in over the weekend to keep things running. Bob said he just puts the QC checks in the queue and is able to keep running.

Carolyn noted that an improvement has been made for long count times, but not for large batch sizes. The committee is in agreement that this is where it needs to be at this time. There will be no further changes to this part of the standard.

Bob does not think it is necessary to define anymore types of batches because the standard defines how the QC needs to be done and it is sufficient.

Comment 8:

Richard is really concerned about having to retest reference material. This should not be required. Bob noted that Richard did a good job defining when it should not be checked. Carolyn noted that they do checks on the dilutions they make. After further discussion the committee decided to delete Section 1.7.2.6 d) iii) and break up the text. Deleted text: iii) Standards shall be verified prior to initial use. Laboratories should consult with the supplier if the lab's verification of the activity of the reference traceable standard indicates a noticeable deviation from the certified value. The laboratory shall use only the decay-corrected certified value. The laboratory shall have a written procedure for handling, storing, and establishing expiration dates for reference standards.

The text in this section now reads:
Section 1.7.2.6 c):

iii) Standards prepared or derived from externally obtained reference materials shall be verified against an independent standard obtained from a second manufacturer, or if such is not available, from a different lot, prior to initial use. Discrepancies between observed and expected values shall be investigated and appropriate measures taken that document the validity of standards prior to use.

iv) The laboratory shall account for radioactive decay/ingrowth whenever decay/ingrowth has occurred between the reference date and use that could impact use of the results.

v) The laboratory shall have written procedures for handling, storing, and establishing expiration dates for reference standards.

Given the extensive change, Bob wanted to vote on this change before he moved on:

Vas made a motion to accept the changes as described above. The motion was seconded by Carolyn. There was no additional discussion. The motion passed unanimously.

7. Working Group on Batching

Section 1.3.1: A definition for Radiation Measurement Batch was added and Batch, Analytical was deleted. The new language is:

Batch, Radiation Measurements: A Radiation Measurements Batch (RMB) is composed of one (1) to twenty (20) environmental samples that are counted directly without preliminary physical or chemical processing that affects the outcome of the test (e.g., non-destructive gamma spectrometry, alpha/beta counting of air filters, or swipes on gas proportional detectors). The samples in an RMB share similar physical and chemical parameters, and analytical configurations (e.g., analytes, geometry, calibration, and background corrections) and the maximum time between the start of processing of the first and last samples in an RMB is fourteen (14) days.

The committee used this definition and updated Section 1.7.2.1 c). The language previously in this section was deleted and the follow language now replaces it:

c) The laboratory shall employ either a sample preparation batch or a radiation measurement batch (RMB, Section 1.3.1) to determine the grouping of samples and assignment of batch QC.

   i) A sample preparation batch shall be initiated where sample testing is performed that involves physical or chemical processing which affects the outcome of the test. Samples and associated QC assigned to a preparation batch shall be prepared together using the same processes, personnel, and lot(s) of reagents.
   ii) Where testing is performed that does not involve physical or chemical processing which affects the outcome of the test (e.g., non-destructive gamma spectrometry, alpha/beta counting of air filters, or swipes on gas proportional detectors), an RMB may be initiated in lieu of a preparation batch. The samples and associated QC in the RMB shall share similar physical and chemical parameters, and analytical configurations (e.g., analytes, geometry, calibration, and background correction).
   iii) Samples may be added to the RMB for fourteen (14) days from the start of the first sample count, or until twenty (20) environmental samples have been counted, whichever occurs first.
   iv) The laboratory may combine samples and associated QC within an RMB that share a range of physical and chemical parameters, and analytical configurations (e.g.,

analytes, geometry, calibration, density) that conform to the ranges of physical and chemical parameters, and analytical configurations demonstrated by method validation studies (see Section 1.5). Laboratory procedures shall document how method validation is performed, and laboratory records shall document any corrections (e.g., for efficiency, density, cascade summing, and background) applied to physical calibrations.

Carolyn noted that the language in 1.5.1 should be reviewed based on this change above. It should have similar language. The following underlined language was added to 1.5.1 a):

a) Prior to their acceptance and institution, methods for which data will be reported shall be validated across the range of physical and chemical parameters (e.g., density, test source composition, and analytical configurations), and activities that will be encountered in samples. Where applicable, the activity range shall include zero activity.

A change was also made to Section 1.7.2.3 b) i) for consistency:

i) The laboratory shall prepare the positive controls using materials that conform to the range of physical and chemical parameters applicable to the associated test sources in the batch.

The wording in Section 1.5.1 f) was modified to:

f) The laboratory shall analyze for all methods, whenever available, externally produced quality control samples from a nationally or internationally recognized source (i.e., a national metrology institute, accredited TNI proficiency test (PT) provider, an accredited ISO 17043 PT provider, an accredited ISO/IEC Guide 34, or from an ANSI N42.22 compliant PT provider). The laboratory shall evaluate the results of these analyses on an ongoing basis to determine its ability to produce acceptable data.

Bob asked that the committee approve the changes made above:

Larry made a motion to make the changes discussed above. The motion was seconded by Vas and unanimously approved.

Marty asked to look at the new 1.7.2.6 iv). What is considered significant? Bob removed the term significant and replaced it with "… that could impact use of the results."

A motion was made by Keith to approve this change and seconded by Larry. The motion was unanimously approved.

8. Status on Updates to Module 6 – Approval for Modified WDS?

Bob asked if anyone wanted to make a motion to approve the Modified Working Draft Standard as modified today.

Vas made a motion to approve the Modified Working Draft Standard as modified today. The motion was seconded by Marty.

Discussion:
Richard is concerned that he has not had a chance to review the standard for consistency after it is complete. He would like more time.

Larry is concerned that not all occurrences of Analytical Batch have been taken care of.

Vote:
After discussion – all committee members voted "Against" the motion. The motion did not pass.

Bob will make all final updates and distribute the standard to the committee for an email vote for approval.

Tom motioned that the committee approve the Modified Working Draft Standard as distributed by Bob on 10-10-14. The motion was seconded by Carolyn. The vote was taken by email:

Bob – For (10-10-14)
Dave – For (10-10-14)
Marty – No Vote
Vas – For (10-10-14)
Nile – For (10-13-14)
Keith – Abstain (10-16-14)
Larry – For (10-16-14)
Tom – For (10-13-14)
Richard – For (10-17-14)
Carolyn – For (10-10-14)

The motion passed: 8 – For, 0 – Against, 1 – Abstain and 1 – Missing vote. The MWDS was prepared for posting and sent to the TNI Website Administrator for posting for public comment on 11/1/14.)

9. New Business

None

10. Action Items

A summary of action items can be found in Attachment B.

11. Next Meeting and Close

The next meeting will be planned by email.

A summary of action items and backburner/reminder items can be found in Attachment B and C.

The meeting was adjourned 3:03 pm EST.

Attachment A
Participants
Radiochemistry Expert Committee

Members	Affiliation		Contact Information	
			Phone	Email
Bob Shannon (Chair) **Present**	QRS, LLC Grand Marais, MN	Other	218-387-1100	BobShannon@boreal.org
Tom Semkow (Vice Chair) **Absent**	Wadsworth Center, NY State DOH Albany, NY	AB	518-474-6071	tms15@health.state.ny.us
Sreenivas (Vas) Komanduri **Present**	State of NJ Department of Environmental Protection Trenton, NJ	AB	609-984-0855	Sreenivas.Komanduri@dep.state.nj.us
Marty Johnson **Present**	US Army Aviation and Missile Command Nuclear Counting Redstone Arsenal, AL	Lab	865-712-0275	Mjohnson@tSC-tn.com
Dave Fauth **Present – Left before 2:30pm**	Consultant Aiken, SC	Other	803-649-5268	dj1fauth@bellsouth.net
Carolyn Wong **Present**	Lawrence Livermore National Laboratory Livermore, CA	Lab	925-422-0398	wong65@llnl.gov
Keith McCroan **Present**	US EPA ORIA NAREL, Montgomery AL	Lab	334-270-3418	mccroan.keith@epa.gov
Todd Hardt **RETIRED**	Pro2Serve, Inc. Oak Ridge, TN	Other	865-241-6780	HardtTL@oro.doe.gov
Nile Ludtke **Absent**	Dade-Moeller and Associates Oak Ridge, TN	Other	865-481-6050	nile.luedtke@moellerinc.com
Larry Penfold **Present**	Test America Laboratories, Inc; Arvada, CO	Lab	303-736-0119	larry.penfold@testamericainc.com
Richard Sheibley **Present**	Sheibley Consulting, LLC	Other (Former AB)	651-485-1875	RHSHEIB111@yahoo.com
Ilona Taunton (Program Administrator) **Present**	The NELAC Institute	n/a	828-712-9242	Ilona.taunton@nelac-institute.org

Attachment B

Action Items – REC

	Action Item	Who	Target Completion	Completed
55	Prepare email vote on MWDS.	Bob	10-15-14	10-10-14
56	Work with Jan to clean-up MWDS for posting and send to TNI Web Administrator to post on website with Webinar Announcement.	Ilona	11-1-14	

Attachment C – Back Burner / Reminders

	Item	Meeting Reference	Comments
1	Update charter in October 2014	n/a	
2	Issue of noting modifications to methods.	1/16/13	
3	Look at batching when QC is looked at.	1/16/13	
4	Look at need to reference year for any standard references– which version is being referenced. Is this necessary?	5/22/13	