Radiochemistry Expert Committee (REC)
Meeting Summary

July 27, 2022

1. Roll Call and Minutes:

Terry Romanko, Chair, called the meeting to order at 1pm Eastern on July 27, 2022 by teleconference. Attendance is recorded in Attachment A – there were 8 members present. Associate members in attendance: Keith McCroan, Mark McNeal, Bob Shannon and Patrick Garrity.

2. Comments on TNI Standard

Ilona forwarded some comments received on the DRAFT Standard in response to the posting. They were not prepared as normal comments, but Terry feels they should still be addressed. The black text below were the comments received and the blue text includes Terry's initial thoughts.

Thank you for the opportunity to comment on the Draft Standard Version 0 for V1M6 that has been posted for comment.

I apologize that I do not have any comments that can be "shoe-horned" into a standard TNI consensus standard commenting format. Nevertheless, if you can make any tweaks or improvements based on your reading the below comments, I believe that will help us Accreditation Body decision-makers that must determine laboratory accreditation status for Radiochemistry FoAs:

1. Use of the word "System" throughout the document:

Section 1.5.3(c) uses the phrase "entire measurement system." Presumably, this would include all sample preparation and analytical steps. Yes, Section 1.5.3(c) is a subset of 1.5 ("Method Validation") which includes all preparation and analysis steps.

Section 1.7.1.1(a) uses the phrase "radiation measurement system." I am not sure that the "system" would pertain to one particular analytical instrument, one sample-detector combination, or all instruments of a given measurement technique or technology. In context within 1.7.1.1(a) itself, "system" applies to "produce consistent, comparable results across multiple detectors used for a common method." Thus, it would apply to whatever radiation measurement system is used for a particular "common" method. This would be true whether the laboratory had only one detector or many detectors associated with the system.

Section 1.7.1.4 uses the phrase "detection system" in several places. Section 1.7.2.1(b) uses the phrase "analytical system." (Is this the same as a detection system? Or a radiation measurement system?) Section 1.7.2.1(b) is a general requirement to "process batch and sample-specific QCs to provide empirical evidence that demonstrates that the analytical system is in control". Section 1.7.2.1(c) goes on to further detail how this relates to when "sample testing is performed that involves physical or chemical processing which affects the outcome of the test" (c.i) and when "testing is performed that does not involve physical or chemical processing…" (c.ii).

Unfortunately, these are not new standards. Thus, is everyone in reasonable understanding and agreement as to what the specified "systems" pertain to? See above.

2. There is a high degree of specificity in frequency for running a "subtraction background measurement" but not how often a "short-term background check" must be run (except for the liquid scintillation detector). Again, this is an existing standard and assessing to it may not be consistent. I guess, at a minimum, the short-term background checks need to be at least as frequent as subtraction background measurements. Except for the case of LSC, the Standard leaves the frequency to be defined and documented the laboratory (1.7.1.6.a.i). The risk the laboratory takes by "choosing" a longer duration between short-term background checks is the potential of having to initial corrective action on a large number of samples, possibly leading to qualification or rejection of data (1.7.1.6.c).

3. The Draft Standard has Section 1.7.2.6(c) subdivided into (i) through (viii), but the Excel file of Expert Committee revisions to the Standard splits (iii) in the Draft Standard into (iii) and (iv). Is this correct, and Section 1.7.2.6(c) should have (i) through (ix) now? This is correct, and this is how it appears in the version sent.

4. The Draft Standard has a Section 1.7.1(a) but no 1.7.1(b). Is this by design, so as to put the normative requirement in 1.7.1(a) as different from the 1.7.1 general description? That is correct. The portion in the first 2 paragraphs of 1.7.1 are descriptive. The portion in a) is prescriptive.

Terry's initial reaction is that these comments do not affect the Standard. Ilona noted that Bob Wyeth thinks these need to be handled as comments and be placed into the comment table to be officially addressed through Committee discussion and that a decision be voted on whether they are Persuasave or Non-Persuasave. The Committee needs to document why a comment is Non-Persuasave and if Persuasive, discuss possible changes in the language to develop a Revised DRAFT Standard. The Committee should wait to vote until all comments are included in the table.

Ilona summarized the procedures for determining Persuasave or Non-Persuasive.

Terry re-emphasized that some of these are just comments with no suggestions. He took the information above and inserted it into the Committee's original Summary of Suggested Changes document that was used to prepare the DRAFT Standard. The Committee discussed Terry's suggestions above and initial thought are that no changes are being suggested based on the comments and justification was added to the Justification column (see Attachment D).

3. Technical Manager/Expert/Specialist

Email Correspondance:
Debbie Bond (Chair, QMS) sent a few questions to Terry in black (7/26/22) and Terry responded in blue (7/27/22):

For iv: How important is a course in each technology? Can a TS over 4 technologies substitute one or both of the 2 required years of experience and have courses in only 2 technologies? As I have stated previously, often hands-on experience in the lab (actual operation of the instrumentation/performance of the method) is much better than an actual "course". Overall, the requirement is for 12 courses total plus 2 years of experience. The allowance is for up to 6 years of experience to be substituted for 6 courses – it does not matter what these 6 years of experience are in. So, one could have 6 courses (let's suggest this is Freshman Chem, Physics, and a second or third year chemistry with 2 courses in each for a total of 6 courses) and 8 years of experience and be a TS over a "full-service" Rad lab. Or, 6 courses and 5 years experience and be TS over a lab that does just GFPC work (e.g. Gross Alpha/Beta, Ra-226, Ra-228). The stipulation is that the years of experience cannot be all in the same technology ("increasing knowledge"). Ultimately, we would all be better off with an ISO style performance-based accreditation. Note: While invaluable to the production at the lab, the gentleman that worked at our lab for >25 years performing mostly percent moistures and Rad Screens would not be qualified for TS.

For v: What if the TS needs to bring on a new technology and has 4 courses in radiochemistry, but does not have the experience with the new technology? Can we still use the "demonstrated performance of the new method [technology]"? Yes, this is the purpose – the process of bringing the method online, including creating the SOP, the validation, the DOCs, passing 2 PTs, etc (all the things needed to get accreditation) show that the laboratory performance is "good" and that the TS gathered the necessary knowledge/experience.

The Committee is not done with this topic. Terry sat in on the last QMS meeting and noted that the QMS will probably make some changes to the language the Committee proposed in order to build some consistency between the other Modules. An example would be Technology instead of Technology/Method. QMS and Jerry Parr liked what the Committee developed for new technologies. They will likely use this across all the Modules. Alyssa Wingard (DoD) commented that for the QSM, they will be incorporating ISO/IEC 17025:2017 and will be focused on how well the lab is doing instead of what the titles are within the lab. Risk based. DoE will be requiring Technical Managers (Specialists) similar to what TNI puts into their Standard.

The QMS is still going through the recommendations from the other Modules.

4. Committee Vice-Chair

   The Committee is looking for a new Vice Chair. Robert is stepping into a new position dealing with lead exposure in air. This is his last meeting. Robert's service to the Committee has been greatly appreciated. Please let Terry know if you are interested. The Committee will have to consider balance.

5. New Business

   - None.

6. Action Items

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

7. Next Meeting and Close

   The next meeting will be August 24, 2022 at 1pm Eastern.

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

   Terry adjourned the meeting at 1:58pm Eastern.

Attachment A
Participants
Radiochemistry Expert Committee

Members	**Affiliation**		**Contact InAffirmativemation**
Terry Romanko Chair (2024) **Present**	TestAmerica Laboratories, Inc.	Lab	Terry.romanko@testamericainc.com
Sherry Faye (2022*) **Absent**	Wadsworth Center, NY State DOH Albany, NY	Lab	sherry.faye@health.ny.gov
Velinda Herbert (2024) **Present**	National Analytical Environmental Laboratory	Lab	Herbert.velinda@epa.gov
Brian Miller (2024) **Absent**	ERA	Other	bmiller@eraqc.com
Stan Stevens (2023*) **Present**	Perma-Fix Environmental Services	Other	stanws@aol.com
Amanda Fehr (2023*) **Absent**	GEL	Lab	amanda.fehr@gel.com
Jim Chambers (2023*) **Present**	Fluor-BWXT Portsmouth LLC	Other	jim.chambers@ports.pppo.gov
Greg Raspanti (2022*) **Present**	New Jersey Department of Environmental Protection	AB	Greg.Raspanti@dep.nj.gov
Robert Aullman (2022*) **Present**	Utah Department of Health	AB	aullman77@gmail.com
Chrystal Sheaff (2024*) **Present**	Energy Laboratories, Inc.	Lab	csheaff@energylab.com
Mary Beth Gustafson (2024*) **Present**	Virginia	AB	mary.gustafson@dgs.virginia.gov
Ilona Taunton (Program Administrator) **Present**	The NELAC Institute	n/a	Ilona.taunton@nelac-institute.org

Attachment B

Action Items – REC

	Action Item	Who	Target Completion	Completed
90	Send note about method codes and concerns to the PT Expert Committee. Is there a way to limit the codes a lab can use to report PT data?	Bob	TBD	
114	Terry will send the reporting uncertainty recommendation to PTPEC and the PT Expert Committee.	Terry	5-24-22	Sent to PTPEC on 7/21/22.
115	Send new Technical Specialist recommendation to QMS.	Terry	6/4/22	

Attachment C – Back Burner / Reminders

	Item	Meeting Reference	Comments
5	Affirmativem subcommittee of experts in MS and other atom counting techniques to see that these techniques are adequately addressed in the radiochemistry module.	9/24/14	
6	From Action Item # 75: Prepare copy of Standard annotated with summary document language.		This is a project Carolyn was working on, but the committee decided it may duplicate the Small Lab Handbook. This project has been put on Hold.

Attachment D.

Module 6 Standard Update - Summary of Suggested Changes - Final (3/24/21) – Additions on 7/27/22

Original Text	Suggested Change	Justification
Section 1.5.3(c) uses the phrase “entire measurement system.” Presumably, this would include all sample preparation and analytical steps.	None.	Yes, Section 1.5.3(c) is a subset of 1.5 (“Method Validation”) which includes all preparation and analysis steps.
Section 1.7.1.1(a) uses the phrase “radiation measurement system.” I am not sure that the “system” would pertain to one particular analytical instrument, one sample-detector combination, or all instruments of a given measurement technique or technology.	None.	In context within 1.7.1.1(a) itself, “system” applies to “produce consistent, comparable results across multiple detectors used for a common method.” Thus, it would apply to whatever radiation measurement system is used for a particular “common” method. This would be true whether the laboratory had only one detector or many detectors associated with the system.
Section 1.7.1.4 uses the phrase “detection system” in several places.	None.	Section 1.7.1.4 is in regard to instrument performance checks (to "measure and track the stability of key detector response-related parameters over time.") As such, it is clear in the context of use that "detection system" relates to the instrument/detector, not to other variables (e.g. method/preparation).
Section 1.7.2.1(b) uses the phrase “analytical system.” (Is this the same as a detection system? Or a radiation measurement system?)	None.	Section 1.7.2.1(b) is a general requirement to “process batch and sample-specific QCs to provide empirical evidence that demonstrates that the analytical system is in control”. Section 1.7.2.1(c) goes on to further detail how this relates to when “sample testing is performed that involves physical or chemical processing which affects the outcome of the test” (c.i) and when “testing is performed that does not involve physical or chemical processing…” (c.ii).

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The Draft Standard has Section 1.7.2.6(c) subdivided into (i) through (viii), but the Excel file of Expert Committee revisions to the Standard splits (iii) in the Draft Standard into (iii) and (iv). Is this correct, and Section 1.7.2.6(c) should have (i) through (ix) now?	None.	This is correct, and this is how it appears in the version sent.
The Draft Standard has a Section 1.7.1(a) but no 1.7.1(b). Is this by design, so as to put the normative requirement in 1.7.1(a) as different from the 1.7.1 general description?	None.	That is correct. The portion in the first 2 paragraphs of 1.7.1 are descriptive. The portion in a) is prescriptive.