

# Radiochemistry Expert Committee (REC) Meeting Summary

**May 21, 2014**

## 1. Roll Call and Minutes:

Bob Shannon, Chair, called the meeting to order at 1:05pm EST on May 21, 2014. Attendance is recorded in Attachment A – there were 7 members present. Associate members: Joe Pardue, Brian Miller, Reed Jeffrey, Ron Houck, Carl Kircher, and Virgene Mulligan. Virgene, Reed and Larry joined in at 2 pm.

The May 7, 2014 minutes were distributed and will be reviewed and voted on by email or at the next meeting on 5/21/14.

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. Base Standard Review

### **Larry –**

The Table of Contents is not consistent with the standard. Bob noted this will be taken care of at the end.

### **Dave –**

Section 1.3.2: Leave as Module 4 and Module 6. Dave had asked if it should be “or”.

Section 1.5.4 a)i): He commented that the first sentence is incomplete. Bob made the correction.

### **Tom –**

Tom provided comments by email to the committee regarding batching. Tom and Bob have communicated about his concerns by email.

Section 1.7.2: Tom wants to eliminate the section that requires commonality. Bob would like to leave d) i) and Tom would like it removed. This is the wording in question:

All samples and QC samples in the analytical batch shall have characteristics and analytical configurations similar to those used for calibration of the method (e.g., analytes, geometry, calibration, and background corrections).

Committee members commented that they would like the language to be left in. It has been discussed multiple times in the past.

Bob looked at ii). There is no prep to the samples. He asked if 14 days is the correct time limit or should be longer? 21? 28? Bob is concerned that lengthening it weakens the power of the negative controls. A comment was made that 14 days would cover 90% of the current issues. A project may be able to define this differently for the other 10% of cases.

Vas noted that some clients may have an issue with QC run on a different day than their samples, so he does not want to see it extended. He would prefer to set it at 7 days. Bob pointed out that instrument checks are being done to directly support the data. Since there is no sample preparation so instrument checks are more important.

Someone asked about making it a multiple of counting time. This was discussed previously and it was determined that the instrument checks are more critical for these samples and this didn't seem beneficial.

**Keith –**

#### Section 1.5.4

##### Measurement Uncertainty

a) Each measurement result shall be reported with an estimate of its uncertainty expressed either as an estimated standard deviation, (i.e., a standard uncertainty), or a multiple thereof (i.e., an expanded uncertainty).

i) Although the reported uncertainty should generally be an estimate of the total uncertainty of the measurement, for purposes of compliance with the Safe Drinking Water Act, or to comply with specific requirements established by method, regulation, or contract, or as established in the laboratory's quality management plan (if there are no established mandatory criteria). All other radiochemical measurements shall be reported with an estimate of the total uncertainty of the measured result.

Add – “Results may be reported in association with the counting uncertainty” (or something similar – Bob will see what was there before). This was placed after ( ... mandatory requirements)

**Vas –**

Line 27: “in a” needs to be added. Corrected.

Line 51: Areic is included in the defined terms.

Line 60-67: Removed italics.

Line 91: MDC needs to be defined since this is its first (and only) use. This was corrected.

Line 66: Need to change seven to fourteen.

Line 112: Laboratories instead of laboratory

Line 220 – 224: Corrected italics.

Line 232-236: Already fixed above.

Line 247-250: Was did not think it sounded correct.

b) the report shall clearly specify the type of uncertainty reported. The report shall:

i) express the uncertainty in the same unit of measurement as the measurement result unless the report clearly states otherwise.

After discussion – Was agreed with the wording.

Line 335: Removed the “xxx”.

Line 462: Corrected.

Line 1048: yield should be replaced with non-radioactive? After the discussion this sentence was changed to : ... radioactive tracer or a stable carrier as a chemical yield monitor in the analysis ...

Line 1049: Taken care of.

### Larry –

Line 27: “indicated method...” → “indicated in a method...” Fixed above.

Line 66-67: “maximum time between the start of processing of the first and last sample in the batch is seven (14) days...” ⇒ “maximum time between the start of processing of the first and last sample in the batch is fourteen (14) days...” Line 803 has 14 days. (Also fixed above).

Line 144: “ISO 17043 provider)...” → “ISO 17043 provider...” Fixed.

Lines 232-236: Incomplete sentence. Unclear on intent. Fixed above.

Line 324: “If the method, regulation, or contract...” → “If the method, regulation, or contract...” Fixed.

Line 1035: “...the MD shall be performed on second detector.” → “...the MD shall be performed on a second detector.” Fixed.

Line 1187: “Results from tracers and carriers shall be used to monitor chemical yield in each sample.” → “For those methods that employ a radioactive tracer or a chemical carrier, results from tracers and carriers shall be used to monitor chemical yield in each sample.” The following change was made: *For those methods that employ a radioactive tracer or a stable carrier as a chemical yield monitor in the analysis, each sample shall have an associated chemical yield calculated and reported. The chemical yield is one of the quality control measures to be used to assess the associated sample result acceptance.*

Line 1112-1113: “...with less well-rigorously established traceability.” → “...with less rigorously established traceability.” Fixed.

Need to make sure line 1048 and 1187 are consistent. Bob will look at this.

**Bob asked for additional comments:**

1198 – Needs to be renumbered.

1189 - ii) should be under i) – not parallel to it. Bob combined it into one sentence and changed the numbering below.

Ron asked about line 755 (757 with new numbering). Analytical batch was not mentioned. Is this correct? Bob just realized that 2 ii) and 5) are redundant. 5) was removed – leaving only 5 points instead of 6 under f).

Line 424 (new 426): Ron questioned the need for the first line. After discussion, the text “in operational condition” was removed.

Bob asked Ilona to review the schedule for the next couple of months leading to the Voting Standard. Ilona reviewed the schedule. There will be a webinar on or before July 1st to present the WDS.

Bob would like to have a vote of confidence that the standard is ready for final formatting and vote next week.

Marty made a motion that the standard is ready for final format review and presentation for a final vote next Wednesday. The motion was seconded by Vas and unanimously approved. .

The standard will be voted on next Wednesday.

### 3. New Business

None

#### 4. Action Items

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

#### 5. Next Meeting and Close

The next meeting will be May 28, 2014 at 1pm. This is a final meeting to vote on the acceptance of the Working Draft Standard.

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

The meeting was adjourned 2:39 pm EST. Motion: Larry Second: Dave Unanimously approved.

**Attachment A**  
**Participants**  
**Radiochemistry Expert Committee**

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

## Attachment B

### Action Items – REC

	Action Item	Who	Target Completion	Actual Completion
10	Prepare definition for “activity” based on today’s conversation.	Bob	5/22/13	Complete
23	Propose final language to define Test Source.	Bob, Tom, Vas	10/15/13	Complete
24	Capture background averaging of counts discussion and attempt to add to standard. Send draft language before next meeting.	Keith	10/15/13	Complete
31	Update language for e) 1) vi).	Keith	1/13/13	Complete
34	Distribute Drinking Water Certification Manual to committee.	Bob	1/31/14	Complete
36	Prepare summary of comments on standard through Section 1.7.	Tom	2/25/14	Complete
37	Send January 28 <sup>th</sup> meeting minutes out for an email vote.	Bob	2/27/14	Complete
41	Section 1.7.2.3: comment by email before the next meeting	All	4/22/14	Complete
47	Bob will distribute the updated base standard the committee has been working on. He is asking for comments before the 5/21/14 meeting. All changes from the 5/7 meeting will be incorporated into this update he will send.	Bob All	5/20/14	Complete
48	Send updated copy of WDS for Ilona to review and format for WDS vote next week.	Bob Ilona	5/27/14	

**Attachment C – Back Burner / Reminders**

	<b>Item</b>	<b>Meeting Reference</b>	<b>Comments</b>
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	