

HASQARD Focus Group

Meeting Minutes

January 28, 2014

The meeting was called to order by Huei Meznarich, HASQARD Focus Group Chair at 2:04 PM on January 28, 2014 in Conference Room 308 at 2420 Stevens.

Those attending were: Huei Meznarich (Focus Group Chair), Cliff Watkins (Focus Group Secretary), Joe Archuleta, Glen Clark, Robert Elkins, Scot Fitzgerald, Joan Kessner, Mary McCormick-Barger, Karl Pool, Noe'l Smith-Jackson, Chris Sutton, Chris Thompson, Rich Weiss and Eric Wyse.

- I. Huei Meznarich asked if there were any comments on the minutes from the December 17, 2013 meeting. The Focus Group Secretary pointed out that comments on the draft minutes had been submitted and requested the Focus Group members present to review the revised section. No Focus Group members stated they had additional comments on the December meeting minutes and, after hearing a motion and second for approval, the minutes were approved.

A discussion of the latest efforts to complete Revision 4 of HASQARD was held:

- a. The first agenda item discussed was a letter, dated December 30, 2013, received by the DOE-RL QA Manager and signed by Glenn Podonsky, Chief Health, Safety and Security Officer, of the DOE-HQ Office of Health, Safety and Security. The letter recommends recipients of the letter to encourage all onsite and subcontracted environmental laboratories performing radiological, inorganic or organic analyses for DOE to participate in the Mixed Analyte Performance Evaluation Program (MAPEP). Because the letter does not issue a requirement, the Focus Group Secretary was asked to bring the letter to the attention of the Focus Group strictly for information purposes only. Rich Weiss stated that laboratories that seek DOECAP audit approval are required to participate in the MAPEP by the DOECAP. A Level 1 finding specific to the analytes/methods will be issued by DOECAP to a laboratory that fails the same analytes/methods in two MAPEP studies consecutively. Rich also stated that laboratories and personnel involved in evaluating laboratory performance based on MAPEP results should be aware that the Radiological Environmental Sciences Laboratory (RESL), the entity that prepares the MAPEP samples, has been known to spike radionuclides that may not be representative of contaminants present in typical DOE samples. By that, Rich means that they have been adding depleted uranium to vegetation and filter samples trying to see if a laboratory will correctly analyze for this constituent when this constituent isn't typically

found in filter or vegetation media at DOE sites. The uranium-234/233 present in depleted uranium has a lower ratio to uranium-238 than the ratio present in the natural uranium or uranium present in typical samples from the DOE complex. Performance evaluation samples spiked at low levels with depleted uranium could result in U-234/233 being near the laboratory's detection limits for U-234/233. Rich had to address a Level 1 Finding in the most recent DOECAP audit he participated in at an off-site laboratory due to failure of two U234/233 results. However, the depleted uranium is not present at the DOE sites from which this laboratory had received samples. Another example of an analyte used by MAPEP that presented an issue is europium-152. Europium-152 was spiked in the most recent MAPEP soil sample to serve as interference to the successful identification and quantification of cobalt-57. Since europium-152 is a fission product, off-site laboratories may not have the expertise to recognize this interference. As a result, a high percentage of laboratories failed cobalt-57 in this MAPEP study. Huei mentioned WSCF recognized europium-152 interference and reported cobalt-57 correctly. In discussing these issues with the RESL people, one will find they have a basis for adding these analytes at these levels, but the individual sites need to evaluate MAPEP results relative to their expectations for a laboratory's performance. The MAPEP program considers sample preparation by total dissolution (as opposed to strong acid digestion) to determine the concentration of analytes in soil samples to be the proper preparation method and in most environmental applications this is not required. The RESL sometimes spikes samples with refractory plutonium oxide to ensure a laboratory conducts total dissolution during sample preparation. Eric Wyse added that the MAPEP samples allow the laboratories to test their proficiency in detecting and quantifying nickel-63 and technetium-99, two radionuclides that are unavailable in the proficiency testing samples distributed by ERA as part of the Multi-media Radiochemistry (MRAD) Proficiency Testing Program.

- b. Between the December and January meeting, Glen Clark requested an agenda topic to discuss the language found in the draft of Revision 4 for Volume 4, Section 4.2 concerning the frequency requirements for calibration of mechanical pipettes. The language proposed for Revision 4 to Volume 4 could be interpreted to say that mechanical pipettes only require calibration checks on a quarterly basis. The Focus Group members present agreed that the language could be read that way when it was the intent to require these calibration checks daily. The Focus Group members present discussed the language and agreed that the paragraph should be revised to read:

“It is considered good laboratory practice that mechanical volumetric dispensing devices used for quantitative measurements be verified daily or prior to use to ensure acceptable performance. Daily, before use,

single-delivery volume checks shall be performed and documented. Unless practical concerns preclude this practice (e.g., radiological work environments), volume checks shall be performed by delivery weight. Alternate volume check methodology shall be defined by procedure and shall include checks for accuracy of the device by delivery weight on at least a quarterly basis. Glass microliter syringes do not require daily or quarterly verification, but must come with a certificate attesting to established accuracy or the accuracy must be initially demonstrated and documented by the laboratory.”

- c. Huei Meznarich presented the fact that the latest revision to EPA Method 6010 has updated one of the method blank acceptance criteria from 5% of the regulatory level to 50% of the regulatory level or 5% of lowest sample concentration to 10% of lowest sample concentration whichever is greater. Currently, 5% of the regulatory level and 5% of the lowest sample concentration in the proposed draft for Table 6-2 of Volume 4, Revision 4 are the same as the criteria used in Volume 4, Revision 3. In the December meeting, the Focus Group agreed to take the opportunity of publishing Revision 4 to HASQARD to revise the HASQARD method blank acceptance criteria to reflect EPA’s most recent criteria. Huei had reviewed these two particular method blank acceptance criteria in other EPA methods and found that either 10% of the regulatory level (e.g., in the methods for cyanide, ion chromatography, hexavalent chromium) or 50% of regulatory level (e.g., in methods 6010 and 6020) were in the EPA methods. Therefore, Huei updated the Table 6-2 and text in revision 4 accordingly. The updated Table was not available at the meeting for the Focus Group to review. Huei also raised a question about whether it is appropriate to apply these particular acceptance criteria (based on regulatory level, at either 10% or 50% of the regulatory level or 10% of the sample level) to other inorganic methods or wet chemistry such as total dissolved solids or total suspended solids. A question was raised about whether there are other quality control changes in the EPA updated methods that can be included in this Revision 4. Chris Sutton suggested that someone provide the Focus Group with a summary of EPA QC criteria for inorganic analyses so an informed decision could be made on revising Table 6-2. Rich Weiss found that method 6010 allows the project acceptance criteria as the default blank criteria and provides three alternative criteria if a project does not have its own acceptance criteria. Rich stated that the Focus Group can decide what the appropriate acceptance criteria for the method blanks are for application to HASQARD. He also noted that a 10% of the Lower Limit of Quantitation (LOQ) is one of the three criteria provided in EPA method 9056. Rich Weiss added that he would like to also research the method blank criteria specified in the new DOD/DOE QSM to see if those criteria are helpful or applicable. The Focus Group discussed the fact that some SW-846 methods are now using a blank acceptance criteria that allows no positive

results with a concentration of >10% of the LOQ check sample. With the LOQ concentrations being more widely referenced in SW-846 methods, the Focus Group agreed that there are several things that may be applicable to HASQARD Table 6-2. Therefore, Huei Meznarich took the action to determine how Table 6-2 should be revised and provide that input to the Focus Group Secretary for distribution to the Focus Group for discussion at the February meeting.

- d. The status of production of a final draft for Revision 4 of Volume 4 was discussed. Huei Meznarich reported that a technical editor has begun final editing of Volume 4. The things that were discussed at the January meeting will be added and the editing will continue.
- e. The status of the revision to Volume 3 was discussed. Scot Fitzgerald stated that he, Mike Baechler and Chris Sutton reviewed Volume 3 for areas where revision seemed appropriate and applicable to CHPRC operations. When these gentlemen read Revision 3 of Volume 3 it appeared to them to be written for a mobile laboratory and imposed many of the same QA standards on mobile laboratories as are expected in fixed laboratory facilities. Scot, Mike and Chris revised the document to accommodate field screening and added process monitoring activities such as those conducted at the pump and treat facilities to Volume 3. The revisions made also changed language to be consistent with Volumes 1 and 4 and removed unnecessary generic language. Chris Sutton stated that the proposed approach is to distribute the document as revised by Scot, Mike and Chris for review and comment by the Focus Group and the applicable personnel in the companies they represent. After this review, the comments will be discussed in upcoming Focus Group meetings. Chris reiterated that Revision 3 appears applicable to a relatively large and well equipped mobile laboratory repeating much of the language from Volumes 1 and 4. Therefore, the draft proposed revision eliminates these redundancies and refers the reader to the other volumes as applicable.
- f. The Focus Group discussed the possibility of voting for approval of the final draft of Volume 2 which has been edited and was distributed to the Focus Group voting members for final review on January 9, 2014. Several voting members stated that they did not feel comfortable voting on this volume at this meeting as some personnel they rely on for final review have not completed their review. The vote on approval of the final draft of Volume 2 was tabled for the February Focus Group meeting.

- II. The Focus Group Chair asked if there was any new business. No new business was identified. The chair raised a question about what level of documentation should be produced for the gap analysis conducted between HASQARD Volumes 1, 2, and 4 Rev 3 and the DOECAP/QSAS in producing the revision 4 of HASQARD. The Focus Group agreed that no formal

documentation is needed partially because between the time the HASQARD Rev 4 effort began and the present, the DOECAP has decided to move from the QSAS to a new interagency QA document as the basis for DOECAP requirements.

The Focus Group Chair suggested that the meeting be adjourned. Hearing no objections, the Chair adjourned the meeting at 4:05 PM.

The next meeting is scheduled for February 25, 2014 at 2:00 PM in 2420 Stevens, Room 308.