HASQARD Focus Group
Meeting Minutes
June 21, 2011

The meeting was called to order by Huei Meznarich, acting for Dave Crawford, Focus Group Chairman at 2:07 PM on June 21, 2011 in Conference Room 208 at 2425 Stevens.

Those attending were: Huei Meznarich (Acting Chair), Cliff Watkins (Secretary), Lynn Albin, Heather Anastos, Glen Clark, Kathi Dunbar, Robert Elkins, Scot Fitzgerald, Kris Kuhl-Klinger, Joan Kessner, Steve Smith, Noe'l Smith-Jackson, Chris Thompson, Amanda Tuttle, Rich Weiss and Eric Wyse.

I. Huei Meznarich requested approval of the minutes from the May 17, 2011 meeting. No Focus Group members present stated any comments on the May meeting minutes and, after hearing no objections, the minutes were approved.

II. The Action Tracking matrix was discussed:

a. The action item related to organizing a working group to address the HASQARD language regarding independent assessments to ensure the language addresses all organizations requiring assessments (i.e., sampling organizations and laboratories), acceptable methods for meeting the independent assessment requirement, the thoroughness of the assessment and the frequency required was discussed. The Secretary had worked with Huei Meznarich to provide a new proposal to the Focus Group for consideration at this meeting. The Secretary explained the basis for the latest revisions provided. Comments were made concerning the frequency requirement for internal independent assessments no longer being stated. Another comment concerning the purpose of management versus independent assessments (i.e., effectiveness versus compliance) was heard. Noe'l Smith-Jackson stated that everyone at Ecology that she had spoken with about the latest proposed deminimis change had not voiced an objection to its wording. As a result, because the proposed language represents only a deminimis change to Revision 3 of HASQARD, and the Focus Group intends to issue Revision 4 of HASQARD within the next 12 months, the comments were determined to be of low enough priority to allow for a vote on the deminimis change. All HASQARD Voting Members were present except Larry Markel. Glen Clark stated he was voting in Larry's absence and by unanimous approval the deminimis change was accepted. The Secretary accepted the action to ensure the deminimis change as approved is uploaded to the HASQARD web site. The action was determined to be completed and will be moved to the completed actions list.

b. The issue of the posted deminimis language for use of custody seals was discussed. Jim Conca and Huei Meznarich have agreed that the language proposed by CHPRC personnel on November 29, 2010, is acceptable but

suggested that a temperature specification for cooled samples be stated as <6° C rather than 4°±2° C. They also requested CHPRC to provide specific language concerning the term "shipping container" to ensure it reflects current practices. At the April meeting, Chris Sutton took the **Action Item** to check the language with CHPRC sampling personnel and provide the final language to the Focus Group for concurrence vote at the May meeting. If approved, the Secretary would have posted the deminimis change on the HASQARD web site after the June meeting. However, Chris Sutton was not preset and Scot Fitzgerald stated that while he had spoken with Chris Sutton recently, this subject had not come up. The action remains open and deferred to the next meeting in August for completion.

c. The schedule for presentation of the subcommittee recommendations for revision to the HASQARD document was discussed. The schedule will be updated based on input at this meeting (see item III below) and provided in hard copy form at the August meeting.

d. At the February 15 meeting, Rich Weiss took the action to determine if language concerning customer complaints proposed for Section 5.1 by the QA subcommittee should be placed elsewhere in the HASQARD. Rich requested the QA Subcommittee reconcile language found in Section 2.2.2 of Volume 1 of Revision 3 of the HASQARD with the proposed language for Section 5.1 of Revision 4 of the HASQARD. Steve Smith agreed to look at this and ensure no redundancy exists. The action was determined to be completed and will be moved to the closed actions list.

e. At the March Focus Group meeting the QA subcommittee presented a proposed requirement that says: "All generated data, except those that are generated by automated data collection systems, shall be directly, promptly and in permanent ink." At the March meeting, Rich Weiss noted this is an antiquated requirement and does not apply to an automated world because data can be collected in other than automated data collection systems. In March, the Focus Group felt like the reference to permanent ink may not be necessary in this section regardless of its presence elsewhere in the document. At the March meeting, Steve Smith accepted the action item to determine if the requirement to record entries in permanent ink is found elsewhere in HASQARD (e.g., the notebooks/logbooks section). Steve Smith researched the subject, provided results of the research to the Secretary who forwarded it to the Focus Group on June 15, 2011. The action was determined to be completed and will be moved to the closed actions list.

f. At the May Focus Group meeting, the QA subcommittee presented a proposed requirement to bracket the expected range of weights to be measured on the daily balance check. At the May meeting, Hue Meznarich stated that she thought this requirement had been deleted from

QSAS and took the action to determine if the requirement to bracket the expected range of weights to be measured on the daily balance check is still present in the latest revision of the QSAS. At the June meeting, Huei reported that she believed that she was thinking of the ISO 17025 language which simply requires verification of calibration and confirmed that QSAS requires bracketing. Huei stated that she is fine with the QSAS language and considers this action item closed. The action was determined to be completed and will be moved to the closed actions list.

III. The schedule status of the subcommittees established to compare the QSAS and HASQARD requirements and propose revisions to the HASQARD accordingly was discussed.

a. Organic: Glen Clark (Coordinator), Robert Elkins, Cliff Watkins

Glen Clark has completed the organic analysis revisions to HASQARD and believes the HASQARD Focus Group input is now addressed in the revised document produced by the Organic Analysis Subcommittee.

b. Sampling: Chris Sutton (Coordinator), Wendy Thompson:

Chris Sutton was not present at the meeting. Scot Fitzgerald reported that Chris is still trying to find time to incorporate the final set of comments he has received. Once incorporated, he will send the document to the Secretary for distribution to the Focus Group for review and comment.

c. Inorganic Analysis: Heather Anastos (Coordinator), Chris Thompson, Jim Jewett, Eric Wyse

Heather Anastos presented the inorganic Analysis Subcommittee's proposed revisions to HASQARD at this meeting (se Section V below).

d. Radiochemistry: Joan Kessner (Coordinator), Rich Weiss, Huei Meznarich, Karl Pool, Eric Wyse

Joan Kessner reported that the Radiochemistry Subcommittee is on schedule to meet all milestones shown on the last updated schedule. This included the fact that if the Inorganic Analysis Subcommittee completed their presentation at this month's meeting they would not be ready to present in July.

e. Quality Assurance/Management Systems: Steve Smith (Coordinator), Taffy Almeida, Cindy Taylor, Greg Holte, Larry Markel, Kris Kuhl-Klinger, Amanda Tuttle and Kathie Dunbar:

Steve Smith has completed the quality assurance revisions to HASQARD and believes the HASQARD Focus Group input is now addressed in the

revised document produced by the QA Subcommittee.

IV. New Business

No new business was raised.

V. HASQARD Revision 4 Proposals

Heather Anastos presented the Inorganic Analysis Subcommittee's proposed additions to HASQARD as a result of their gap analysis between HASQARD and the QSAS.

Heather presented a hand out that discussed the Subcommittee's approach to this effort. The Inorganic Analysis Subcommittee reviewed the DOECAP Checklist 3 "Inorganic," reviewed Chapter 5 as it was applicable to inorganic analyses, reviewed The QSAS Appendix D for anything applicable to inorganic analyses and reviewed previous recommendations from Organic Analysis and QA Subcommittees. Heather noted that where a difference between HASQARD and one of the reviewed documents exists and there was concurrence on a proposed revision due to review of the work of either the Organic Analysis or QA Subcommittees, she was not going to revisit it in the presentation at this meeting. Heather stated that any areas where the Inorganic Analysis Subcommittee's proposal differed from previous presentations will be covered.

Heather noted that the subcommittee looked for requirements in DOECAP that do not currently exist in HASQARD that would add value. The subcommittee didn't pursue changes that dramatically affect the current level of detail in HASQARD (i.e., many of the method specific requirements weren't considered for incorporation in HASQARD unless that criterion was already part of HASQARD). They used the approach that HASQARD documents the minimum acceptable requirements, and some techniques/projects may require additional requirements (i.e., Calibration and QC requirements). In several cases, the criteria in DOECAP were very specific; however, the subcommittee felt a more general statement would be a valuable addition to HASQARD.

Heather noted that the Inorganic Analysis Subcommittee feels that a discussion and resolution on the language concerning detection limits is needed. Of specific concern are the facts that:

a. QSAS Section 5.9 DOE-3 requires annual verification of method detection limits – HASQARD does not require a frequency.
b. QSAS Section D.1 has a number of requirements for LOD that are not included in HASQARD.
c. QSAS Section C.3.1 has specific requirements for MDL that are not included in HASQARD.

Eric Wyse has a number of recommendations for consideration in revising the HASQARD LOD/LOQ/MDL/IDL requirements. The Inorganic Analysis Subcommittee proposes that the HASQARD Focus Group look at this section in detail when producing Revision 4 of the HASQARD (i.e., not strictly within the context of the comparison of HASQARD to DOECAP).

The presentation then turned to the specific recommendations for revisions to HASQARD.

In HASQARD Volume 1, Section 9.1, the subcommittee suggests that the sentence saying: "Equipment and/or systems requiring periodic maintenance shall be identified, and the records of major equipment shall include the name, serial number or unique identification, date received and placed in service, current location, condition at receipt, manufacturer's instructions, date of calibration or date of next calibration, maintenance, and history of malfunction" be changed to eliminate the words "requiring periodic maintenance" to ensure all equipment is included.

In HASQARD Volume 1, Section 9.2, the subcommittee added similar words identified by the organic analysis and QA subcommittees concerning instruments that may have been overloaded. Heather suggested that this matter be deferred to the QA subcommittee's selection of words. In this section, the subcommittee also added the concept of only "non-user calibrated equipment requiring calibration." The subcommittee suggested that only non-user calibrated equipment requiring calibration be those that require the equipment be labeled, coded or otherwise identified to indicate the status of calibration, including the date when last calibrated and the date or expiration criteria when recalibration is due. This is to clarify that not all daily calibrated instruments need to retain this much labeling. Rather, only instruments calibrated at longer frequencies (e.g., thermometers and balances) need such labeling or identification.

That concluded the discussion of proposed revisions to Volume 1 of HASQARD.

The Inorganic Analysis Subcommittee's proposed revisions to Volume 4 of HASQARD included:

Bullets were suggested for Section 2.2 "Physical Facilities Systems" (which was suggested to be renamed to "Physical Facilities Systems and Laboratory Equipment") to require the laboratory to maintain adequate analytical instrumentation sufficient to perform the scope of work. The bullet also adds that in cases where the laboratory needs to use equipment outside its permanent control, the laboratory shall ensure that the requirements of the HASQARD are met. A second suggested bullet adds a requirement for the laboratory to maintain documentation of instrumentation configuration and settings, including any deviations from manufacturer's instructions.

A bullet was suggested for Section 3.3 "Sample Receiving" requiring laboratory sample receiving procedures to include verification of chemical preservation using readily available techniques, such as pH or chlorine, prior to or during sample preparation or analysis.

In Section 4.0, "Calibration," the subcommittee recommended a revision to the language in the second paragraph from saying "All aspects of the measurement process should be calibrated" to new verbiage saying "Data generated for clients shall be obtained from calibrated equipment. Documentation of calibration must be maintained such that it is traceable to the measurement system and results generated from that system. Non-user calibrated equipment that is out of calibration must be clearly identified to prevent use." This passage introduces the term "Non-user calibrated equipment" and the Focus Group took note that this term should be defined in a glossary.

A third paragraph was suggested for Section 4.0 that would say, "Results reported from a measurement system must be within the working range of the calibration, that is, the standard concentrations must bracket the sample and QC concentrations, unless specifically allowed by the analytical method (e.g., ICP/AES). If multiple calibration curves are used, analytical QC must be performed for each curve. Over-range samples are diluted or otherwise reanalyzed within the calibration range of the measurement system or, when

necessary, reported using defined qualifiers to denote increased quantitative uncertainty."

In Section 4.2, "Balances, Thermometers and Pipettes," a new first sentence was suggested saying, "All balances, and any thermometers, pipettes, and automatic sample dispensers used for quality affecting measurements shall be uniquely identified."

Two new final sentences for the first paragraph of Section 4.2 were suggested to say, "The balance check shall bracket the range of measurements to be made. Balances shall be located in an area where the environment has little or no effect on measurement accuracy."

In Section 4.3, "General Requirements for Standards," the subcommittee suggested a change from, "Standards used for calibration shall be accompanied by a certificate or record that includes the vendor, lot number, purity, date of preparation and/or expiration and concentration or activity of the standard material" to the words, "Purchased standards shall be accompanied by a certificate or record that includes the vendor, lot number, purity, expiration date, and concentration or activity of the standard material." This is because many "standards used for calibration" are a mixture of several purchased standards. Therefore, the subcommittee added a suggested sentence to follow saying, "Laboratory prepared standards shall be traceable to the primary standard preparation documentation."

Also in Section 4.3, an additional paragraph was suggested to say: "The expiration date of a laboratory prepared standard shall not exceed the expiration date of the primary standard. Expired standards shall not be used unless their reliability is verified by the laboratory. If expired standards are not recertified, the laboratory shall remove the standard or clearly designated as acceptable for qualitative purposes only."

A discussion was held concerning how to verify an expired standard's usability and whether there is an appropriate and valid way to do that. The Focus Group thought that if there is good guidance on this, it would be a valuable addition to HASQARD. The Focus Group suggested that perhaps an appendix containing this guidance would be appropriate or reference to an existing ASTM method. The Focus Group agreed to table the idea and research an appropriate approach.

In Section 4.4, “Calibration of Laboratory Measurement Systems,” the subcommittee suggested words be added to the last paragraph of the section to reiterate, “Where a Hanford Site activity requires using a specific regulatory method (e.g., permits, National Pollutant Discharge Elimination System), and the regulatory method is in conflict with HASQARD, the calibration and QC requirements in the regulatory method shall take precedence over Chapters 4.0 and 6.0 in Volume 4 of HASQARD. All other sections of HASQARD would apply.”

The subcommittee suggested changes to Table 4-5 to state that a “minimum of three” concentrations for calibration of instruments for cyanide-manual and semi-automated spectro-photometric analyses was required rather than the current wording that implies only three concentrations are to be used. The subcommittee also moved the existing footnote regarding calibration frequency requirement for the same test to clarify the language requiring calibration “before each new analytical run” to allow for “with the following exception: for dedicated instruments, the calibration is valid as long as calibration verification acceptability is demonstrated or for up to 90 days.”

The subcommittee also added minimum calibration requirements for Kinetic Phosphorescence Analysis (KPA) to Table 4-5. KPA has not been previously included in the HASQARD. There was some discussion regarding whether this method should be included in the Inorganic or Radiochemistry sections.

The subcommittee noted numerous differences between QSAS and the requirements in Section 5.1, “Data Collection.” However, it was acknowledged that the QA Subcommittee is addressing this topic in the proposed revisions to HASQARD Volume 1. Therefore, the subcommittee deferred to the QA group, but suggested that the final requirements in Volume 1 be reviewed against Volume 4, Section 5.1 to ensure any applicable additions are made.

The subcommittee suggested an additional bullet be added to Section 5.2.3, “Data Review” to say, “Data shall be reviewed against project-specific criteria as established in the DQO process and/or laboratory-client agreements. This review includes COCs, holding times, unique QC specifications, required detection limits, completeness (i.e., requested analytes were performed), TICs, report format (hardcopy and electronic), TAT, anomalies and nonconformances, as applicable. All efforts shall be made to meet the client

requirements. Identified issues shall be documented and communicated to the client."

The subcommittee suggested adding the same language stating, "Where a Hanford Site activity requires using a specific regulatory method (e.g., permits, National Pollutant Discharge Elimination System), and the regulatory method is in conflict with HASQARD, the calibration and QC requirements in the regulatory method shall take precedence over Chapters 4.0 and 6.0 in Volume 4 of HASQARD. All other sections of HASQARD would apply" top Section 6.0 also.

The subcommittee noted significant differences regarding which and how many analytes require spiking in Section 6.2.4, "Matrix or Post Spiking" relative to QSAS requirements. However, it was noted that this same issue was discussed by the organic subcommittee. It was stated that the approach for spiking multi-constituent methods should be kept consistent between inorganic and organic chemistry in HASQARD.

The subcommittee added suggested requirements to Table 6-2, "Preparative Requirements for Inorganic Quality Control" for biological oxygen demand (BOD) and chemical oxygen demand (COD) analyses. The analyses BOD and COD have not been previously included in the HASQARD.

In Table 6-3, "Analytical Requirements for Inorganic Quality Control" the subcommittee suggested several clarifications and added requirements for serial dilutions if the MS/MSD fails during mercury analysis using Cold Vapor Atomic Absorption (CVAA) and requirements for KPA. A footnote was also added to this table to say, "Calibration verification standards and blanks may have more stringent internal standard requirements based on the analytical method."

In Section 6.5.4, "Initial and Continuing Calibration Blanks," the subcommittee suggests a revision to the last sentence of the section to say, "This protocol indicates potential carry-over effects (e.g., carry-over of residual material from one sample to the next in the sequence) which should be avoided by appropriate method design (e.g., adequate rinse time between samples)."

With the presentation of suggested revisions to HASQARD completed, Heather Anastos next handed out a list of QSAS differences from HASQARD

that the subcommittee specifically suggests not be included in HASQARD. The QSAS requirements that the subcommittee suggests not be added are:

1. Several methods use a timeframe of "daily" where HASQARD currently states a "continuous time period." The subcommittee opted to retain the current HASQARD wording.
2. Many examples of method specific requirements (calibration and QC) where criteria or frequency were not identical to HASQARD.
3. Requirement for ASTM type II water is listed in the checklist, but not QSAS, and is unnecessarily restrictive.
4. QSAS Section 5.7 includes: "Where sampling (as in obtaining sample aliquots from a submitted sample) is carried out as part of the test method, the laboratory shall use documented procedures and appropriate techniques to obtain representative subsamples." The subcommittee felt the HASQARD Volume 1 requirement to have "Sample Preparation" procedures was adequate.

This concluded the presentation of the Inorganic Analysis Subcommittee's proposals for HASQARD Revision 4.

Huei Meznarich asked if the Radiochemistry Subcommittee will be prepared to present their proposals at the July meeting. Joan Kessner stated that she felt the group would need two more months. They would be ready to present their proposed revisions in September. That stated, Eric Wyse volunteered to make a presentation on MDLs, LODs, EQLs, etc. at the July meeting. When this was suggested, Joan Kessner noted that she and Rich Weiss would be on an audit at the time the July HASQARD meeting was to take place and that they preferred to be present when the MDL discussion takes place.

Huei Meznarich noted that because the Inorganic Analysis Subcommittee was able to complete their presentation at one meeting, the HASQARD Revision 4 effort appears to be ahead of schedule and suggested the Focus Group could take a month off if it was agreeable to the body. The Focus Group agreed that there will be no meeting in July and that Eric Wyse will present a discussion on MDLs in August.

Hearing neither additional new business nor objections to the proposal to adjourn, the meeting was adjourned at 3:42 PM. The next meeting is scheduled for August 16, 2011 at 2:00 PM in 2425 Stevens, Room 208.