2009 CAM Revisions Work Group

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Meeting Minutes from June 9, 2009
Present: Don Muldoon, Liz Denly, Susan Chapnick, Heather Beaudoin, Paul Fyfe, Mark Warren, Dave Dickinson, Michael Erickson, Bianca Hebbel, Scott Buchanan, Jack Miano, Mike Reed, Jim Occhialini, Ray Siegener, Liz Callahan, Edie Hutchinson

1. **Liz Denly presented the Organic Subcommittee's recommendations for CAM Methods VPH, EPH, and 8151 (Herbicides).**
   - Highlights of revisions made to these methods were presented to the Work Group. Additional issues discussed include the following:
     - VPH: The procedure for spiking surrogates and matrix spike solutions in soil/sediment samples will not change (spikes added directly to the methanol-preserved vials) as this is the procedure used by the laboratories on the Work Group. Subcommittee will update the VPH flow chart on the Analytical process.
     - EPH & VPH: The Work Group agrees that calculation worksheets for these methods are helpful but these should be placed in the Appendices of the individual methods and not in the CAM documents. The reference to this worksheet in the VPH Appendix will be eliminated.
     - 8151: It was proposed to change the holding time for herbicides from "40 days from extraction to analysis" to "28 days from extraction to analysis" based on requirements provided in the SW-846 method to analyze extracts as soon as possible with a note that most analytes are stable for 28 days in the extract. Nancy Rothman will check if there are additional studies available for the herbicide holding time prior to finalizing.
     - 8000C: Concern about the reporting of the lower of the dual column results was raised by DEP. It would be helpful for DEP to determine why this policy was changed by EPA. Currently, DEP would prefer the higher of the dual column results to be reported as they feel this is most conservative approach. This will affect PCB, pesticide, and herbicide methods. Liz will look into the rationale behind EPA's decision to now require the reporting of the lower of the dual column results and report back at the next Work Group meeting.
     - APH: Don is going to check with the APH Work Group to see if any members want to be part of the Organic Subcommittee or assist in the review of the CAM documents for APH and TO-15.
     - General Reporting Issues: agreed to add sample receipt, preservation, and holding time non-compliance issues as required for laboratory narrative.
     - The next methods to be reviewed by the Organic Subcommittee include explosives, TO-15, and APH.

2. **Susan Chapnick presented the Inorganic Subcommittee's recommendations for CAM Methods 6020A (ICP/MS metals), 7470A/7471B (mercury), and 7010 (GFAA).**
   - Updated performance standard tables were presented to Work Group members for the above-listed methods. Items which were added or which changed from the original CAM were discussed with the Work Group.
   - There were no objections to any of the changes/additions that were discussed.

- Additional issues discussed include the following:
    - Susan noted that the Inorganic Subcommittee has decided to keep the requirement for a daily initial calibration for ICP-AES (CAM 6010).
    - The Inorganic Subcommittee proposed drafting an analytical method for physiologically available cyanide (PAC). Susan will consult with Oscar Pancorbo and Jim Sullivan from the DEP-Lawrence lab.
    - The next methods to be reviewed by the Inorganic Subcommittee include total cyanide, PAC, and hexavalent chromium.
    - The possibility of "new" CAM methods was brought up for discussion. Some methods proposed were TCLP, SPLP, TOC, perchlorate, and dioxins. It was agreed that TCLP and perchlorate CAM methods may be a good idea.

3. Linear and Non-linear Regression Discussion

- Don Muldoon led a discussion on linear regression. The following bullets address the highlights of this discussion:
    - The CAM documents will not include a requirement to force the initial calibration curve through the origin.
    - The only requirement in the CAM with regards to linear and non-linear regression will be that the low-level standard will have to be recalculated using the regression curve and will have specific requirements for recoveries and corrective actions. This will only affect Organic methods as this is not an issue for Inorganics.
    - Most of the text included in the APH method for linear and non-linear regression will NOT be inserted in the CAM documents.
    - A caution will be placed in the Analytical Notes for all organic methods regarding the use of quadratic equations to compensate for dirty instruments, etc. Current language in the APH method will be used for this caution.
    - If quadratic equations are used, this must be narrated by the laboratory as an "allowable exception". This will allow the end-user of the data to know if quadratic equations are being used on compounds where they are not expected to be needed.

4. CAM Reporting Limits (CRLs)

- Don Muldoon led a discussion on DEP's newly proposed concept of CRLs.
    - Based on comments received on CAM VII, Don stressed the need to incorporate reporting limits (RLs) into the CAM; these would be CRLs. Don feels that if we can come to an agreement on the concept of CRLs, then we can change the Certification Form and remove the data usability language from the CAM.
    - Workgroup members were not unanimously behind this approach and expressed concern in developing and requiring specific CAM RLs for all methods/analytes.
    - Organic and Inorganic subcommittees would define "readily-achievable", "expected" or "typical" RLs for each method – as a clarification of language already in the CAM text for individual methods
    - The Work Group members expressed that CAM RLs should not be included in the Analyte List tables; however, Don thought this approach would simplify the Certification Reporting Form
    - The Certification Form question on achievement of reporting limits would be below the Presumptive Certainty line.
    - One approach is to tighten up the language in Section 1.1 of methods where we discuss "typical" or "expected" RLs and include cautions of exceptions to the typical RL (either in text or table formats).

- Another approach is to include a line on the Presumptive Certainty form for what standards were specified by the data user on the COC or during project set-up ("None specified" would be written in if data user did not supply required standards). This is consistent with CT Form.
- Approach supported by Don is to set CAM RLs for all compounds/analytes. Work Group members must get back to Don with suggestions on the concept of CRLs.

5. Outstanding Miscellaneous Issues

- Don Muldoon led a discussion on outstanding issues from previous Work Group meetings.
  - Reactive VOCs: The footnote on the table in 8260B regarding reactive VOCs will be removed since there is now consensus that none of the CAM VOCs are reactive. There will be a caution in the Analytical Notes that this method may be used for "other" VOCs and consideration should be taken as to whether these "other" VOCs are reactive or not.
  - Reporting of "J" values: It was discussed that this is appropriate for GC/MS and ICP-AES methods only.
  - Matrix Spike Requirements for Metals: This issue was still not resolved. Should we require this or include a note to the data user that they need to be concerned with this because there is no measure of accuracy in the matrix? The issue, once decided upon, will be addressed in CAM VII and REDUA and not the individual metals methods.

6. Other Items Discussed

- Performance standard tables will be posted on the CAM Revisions Work Group web page as they are finalized. Changes to the tables will be highlighted before posting.
- Susan requested that DEP summarize the comments received on CAM VII draft and DEP's responses to all Workgroup members.
- Don handed out another version of the Certification Form and a revised flow chart for CAM VII. These handouts were not reviewed or discussed by the Workgroup at this meeting.

7. Next meeting will be held at MassDEP Central Office, 627 Main Street, Worcester, MA on August 4, 2009 beginning at 9:15 AM.

8. Summary of Action Items:

1. Nancy Rothman will check if there are additional studies available for the herbicide holding time prior to finalizing.
2. Liz will look into the rationale for EPA's requirement for reporting the lower of the dual column results for PCBs, pesticides, and herbicides.
3. Don will check with the APH Work Group to see if any members want to be part of the Organic Subcommittee or assist in the review of the CAM documents for APH and TO-15.
4. Work Group members will get back to Don with suggestions on the concept of CRLs.
5. Don will e-mail out the latest Certification Form to the Work Group.

Thank you all for participating in this important Workgroup to assist DEP in continuing improvement and consistency of the quality of chemical data to support MCP decisions.