

**Federal Advisory Committee on Detection and Quantitation Approaches and Uses
in Clean Water Act (CWA) Programs (FACDQ)**

FDIC Seidman Center, Rooms 203 & 205
3501 Fairfax Drive, Arlington, VA
Thursday – Friday, July 13-14, 2006

Final Summary of Meeting #5

Decisions at Meeting #5

The committee:

- Agreed to further refine the document describing characteristics the committee wants in a final procedure by:
 - Adding language in the introduction to read: "...the committee generally agreed that the list of characteristics should be built with the final recommendations in mind and that those characteristics should drive the pilot study to test whether procedures met those characteristics. Committee members also generally agreed that the pilot test was an opportunity to inform the committee's final recommendations and that some of the characteristics might be refined as a result of the pilot study data."
 - Revising characteristic 5b to read: "Requiring revision of L_Q or L_D if all spikes at L_Q or L_D are not detected."
 - Adding a new number 7 that would read: "Perform on-going verification of estimates. To be evaluated by:
 - a) Continuously analyzing periodic blanks to assess the estimate of L_C ;
 - b) Continuously analyzing periodic low-level spike samples near L_Q to assess the estimate of L_Q ; and
 - c) Recalculating limits at a frequency that captures variability in performance relative to MQOs."
 - Removing the appendix.

Vote: Agree = 19; Not opposed = 1; Opposed = 0; Absent = 1
- Accepted the pilot study design, excluding Attachment B, and recommended moving forward with the pilot study.

Vote: Approve = 18; Not Opposed = 1; Opposed = 0; Absent = 2
- Agreed to send the "Features" document back to the Technical Work Group to provide more detail about what the pilot study would not do.
- Agreed to a revised title for proposal #6 in the straw uses proposal. The new title and proposal were as follows:
 - Uses for 303(d) Listing: Do not develop recommendations for how to use data for 303(d) listings for the following reasons:

- 303(d) listing is a complex process that does not depend totally upon Part 136 analytical methods; it would require an effort to fully educate the committee on this process.
- However, if an opportunity arises to link the 303(d) listing process to uses and approaches for detection and quantitation, and if the FACDQ becomes educated about the 303(d) listing process, then the FACDQ could revisit this issue prior to the final recommendations.

Vote: Approve = 20; Not Opposed = 0; Opposed = 0; Absent = 1

- Agreed to postpone approving the draft summary of Meeting #4 until the next FACDQ meeting. In the meantime, another draft of the discussion surrounding the decisions on MQOs will be prepared using transcripts from the meeting. Both the transcription and redraft will be shared with a small group of representatives from the caucuses to ensure accuracy of the discussion for purposes of approving the summary at the December meeting. The committee also agreed to include a statement about revisiting the setting of numerical MQOs after completion of the pilot study.
- Agreed to add another meeting to the existing schedule. The new meeting will be Wednesday, December 6 – Friday, December 8, 2006, at the FDIC Seidman Center in Arlington, VA. The committee also agreed to discuss extending the charter with Michael Shapiro and Ephraim King during their afternoon visit with the committee on day 2.

Day 1 – Thursday, July 13, 2006, 9:00 AM – 5:00 PM

Opening and Introductions

Richard Reding, EPA Designated Federal Officer (DFO), opened the meeting at 9:00 a.m., welcomed participants, and turned the meeting over to Alice Shorett, facilitator.

Ms. Shorett introduced the facilitation team and initiated a round of introductions of advisory committee members. She noted that a tremendous amount of work had been completed since the committee's March 29-30, 2006 meeting. She emphasized that the advisory committee's purpose was to focus on the policy implications of detection and quantitation and asked for the committee's help in maintaining that focus. She asked committee members to use the microphones and to identify themselves. She indicated that the conference facilities did not include taping or teleconferencing capabilities for the morning of the Day 1, but that such capabilities might be available later the first day and would definitely be available on Day 2.

In preparing for this meeting, Ms. Shorett said that she had re-read the Situation Assessment that Triangle Associates had prepared in December, 2004 and other background materials, including the FACDQ charter and the process design. She highlighted the following recommendations from the Situation Assessment:

The goals and purpose of the stakeholder process were to “come up with procedures for determining detection and quantitation limits that are scientifically-defensible, acceptable

to most or all, easy to carry out, and that are practical and cost efficient. The procedures should produce accurate, consistent, and uniform results. They should become the nationwide standard for how detection and quantitation are determined."

The desired product would be "...revised detection and quantitation approaches for use in Clean Water Act programs that have consensus support among the stakeholder groups. In addition, there should be clarity on the interpretation and acceptable uses of the MDLs and MLs in permitting and compliance. Most want revised procedures to go through rulemaking and replace the current rule at 40 CFR Part 136 Appendix B."

The recommended scope of work for the stakeholder group included reaching agreement on:

1. A common set of terms and concepts (for detection and quantitation).
2. One or more specific approaches and procedures for detection and quantitation for use in CWA programs (not all EPA programs).
3. Interpretation and uses of the numbers that result from the testing procedures.

She reflected that a year had passed since the FACDQ's organizational meeting in June, 2005. She said that the committee was well on its way at this meeting to reaching the goals and products identified in the Situation Assessment. She said that at this meeting the committee would (1) approve "what do we need a procedure to do?" (the way to evaluate if the procedures were meeting what FACDQ members wanted in improved detection and quantitation approaches), (2) accept and launch a pilot study to evaluate a narrowed set of procedures for detection and quantitation, (3) negotiate issues related to a straw proposal on the uses of detection and quantitation approaches, and (4) identify tasks for the Policy and Technical Work Groups to produce that would enable the committee to complete its work by the end of May, 2007 when its charter expired

She said FACDQ members had worked hard to prepare for the meeting. Some had participated in a Pilot Study Design Team to finalize the pilot study design. Others had participated in another subgroup to draft a straw proposal on uses of detection and quantitation. Members had also held meetings and discussions with their constituents to bring ideas that would inform the committee's work at the table.

Now, she said, the committee's work was to listen, search for ways to develop a package that would meet the interests not just of the individual's constituency but also to meet the other interests around the table. She encouraged committee members to listen for the "why" behind what others were saying and to look for ways to develop proposals that would meet all of the needs.

After a few housekeeping items, Ms. Shorett turned the meeting over to Mary Smith of EPA.

Welcome from EPA

Mary Smith, Director of the Engineering and Analytical Support Division at EPA, welcomed committee members to their fifth meeting. She acknowledged the tremendous

amount of work that had gone into moving the products on the pilot study and uses forward and in preparing for the meeting. She told the committee that Michael Shapiro and Ephraim King of EPA planned to attend the meeting on Day 2 and said that they were eager to hear a report of the committee's progress.

Ms. Smith reviewed the committee's timeline and described how the committee process would proceed between the July meeting and May 2007, where the pilot study fit into the process, and what would happen after the committee charter expired.

Agenda Overview and Grounding

Alice Shorett reviewed the two-day meeting agenda. She reviewed the committee's ground rules for discussing issues and for decision-making. Ms. Shorett then described what needed to be accomplished at this meeting in light of the committee's timeline. The committee needed to:

1. Discuss, amend, and approve the document describing what the committee needed a procedure to do.
2. Accept the pilot study design, authorize the pilot study to proceed, and provide additional direction to the Technical Work Group in carrying out the pilot study.
3. Reach agreement on a proposal for uses.
4. Discuss the content of the committee's final report.
5. Assign tasks to the Technical and Policy Work Groups to complete over the next six months or so.

Discussion of Meeting Summary #4

Alice Shorett asked for comments on the draft summary of meeting #4.

In the ensuing review, an issue was raised about the decision to set MQOs, particularly with regard to conventions for reporting data below L_Q . The committee discussed how that decision had been made at the last meeting. The focus of the discussion was on (1) how data would be reported below L_Q ; and (2) whether the decision had been intended for the pilot study only or to be incorporated into the committee's final recommendations.

Committee members discussed the possibility of listening to the tapes or reviewing a transcript of the meeting to clarify what had been discussed. It was noted that the decisions made by the FACDQ had been posted on flip charts and reviewed by all members as the decisions were made. However, many committee members felt the summary of the discussion leading up to the decision around data reporting below L_Q could be expanded.

A second meeting summary issue related to the need for MQOs. A member said he had proposed that the committee adopt numeric MQOs for the pilot with the expectation the committee would return to them at a later date. He asked whether that concept needed to be reflected in the summary of the last meeting.

After discussion, it was agreed to table approval of the draft summary until Day 2 of the meeting. Before approving the summary as a whole, the committee agreed to review a

revised draft of the two sections of the summary under consideration to ensure the text accurately reflected what was said and done.

Caucus Reports on their Outreach

States

Bob Avery reported for the State caucus. He said that the State caucus would later present findings of a survey it had distributed to all of the states to get their feedback and input on the straw uses document. He reported that 13 states had responded to the survey. He noted that there had been some inconsistencies in the responses. The conclusion, he said, would not be new to the committee: states use quantitation and detection for various purposes and in many different ways.

Industry

Larry LaFleur reported for the Industry caucus. He said caucus members had conducted some outreach and held conference calls since the last meeting. He said one of the concerns the caucus wanted to raise was the fact that the committee had not made a lot of progress on substantive issues. He said the caucus wanted to raise the issue of extending the committee's charter because there was a substantial amount of information to go through and the caucus was concerned about being able to complete work on those issues before the charter expired. They included developing a final procedure, agreeing on policy issues, finalizing definitions, and writing a final report. He said it would be very challenging for the committee to get the input needed from stakeholders in one meeting (i.e., in March 2007 under the current timeline). There were many externalities to consider, he said, such as slippage in the pilot study timeline, which would not leave any time to address the other issues. He said he was bringing it up to see if there was a desire to extend the charter, and if there was, whether the committee should raise it with Michael Shapiro and Ephraim King on Day 2, recognizing that this could help Mary Smith internally.

He said the Industry caucus had thought through the timeline and remaining work to be done and had concluded that a few more meetings and about six months was what would be needed. In addition, he said that the Industry caucus was interested in having a meeting between this July meeting and March 2007, so the FACDQ could continue to have focused discussion on issues that did not involve the pilot study. He asked for a response from the committee on the feasibility of his suggestions.

Public Utilities

David Kimbrough reported for the Public Utilities caucus. He said an extension of the committee charter and several additional meetings would be positive if the committee could make progress on some substantive issues.

He said that he had attended a California Lab Accreditation Workgroup in Los Angeles two weeks before this meeting, with about 45 participants. The focus of the meeting had been on detection and quantitation. He said the group had actually come to consensus on a number of items. In addition, he said he had sent questions to an email list of individual

labs and solicited comments on the straw uses proposal. He had found quite a bit of agreement regarding the direction from representative labs in California.

Environmental Community

Richard Rediske reported for the Environmental Community caucus. He said he had had a chance to discuss detection and quantitation at a Great Lakes conference involving a group of individuals charged with monitoring and developing policy for the Great Lakes. They said it was critical to have data with known precision and accuracy, so they were very interested in this process. The one thing that everyone should be aware of, he said, was that the ongoing monitoring for the Great Lakes was being done at least two orders of magnitude lower for PCBs. If the detection limit for effluent monitoring were two to three orders of magnitude larger than for ambient water, it would be very difficult to get a handle on the real situation, especially in the Great Lakes region.

Environmental Labs

Richard Burrows reported for the Environmental Labs caucus. He said he had polled ACIL members on the uses straw proposal. He said the single most important thing for his caucus was to come up with a decent procedure for estimating detection and quantitation limits that could replace the current one in 40 CFR 136. The caucus also believed that if this committee were to come to a consensus that DNQ would be reported between L_C and L_Q , some states would maintain their requirement to report numbers below L_Q . If we were to do a decent job of estimating those numbers in the first place, then he said that we would have something solid on which to base subsequent decisions.

EPA

Mary Smith reported for the EPA caucus. She said they had had a host of internal discussions on all of these issues. The EPA caucus actively engaged all the divisions and branches of the EPA Office of Water and throughout the agency, through an internal work group, but also through individual briefings and by email. Several offices had been involved in discussions including the Offices of Water; of Wetlands, Oceans and Watersheds; of Groundwater and Drinking Water; of Wastewater Management; of Enforcement and Compliance Assurance; of Research and Development; of Air and Radiation; of Solid Waste; of Prevention, Pesticides and Toxic Substances; of General Counsel; of Science Policy; and the Regional Offices.

Several layers of management had been involved in all of those cases. She said that she had also been able to brief Ben Grumbles, the Assistant Administrator for Water. She said there was a lot of passion around the issues, and she would give the committee a sense of where the agency was throughout the discussions on Day 1 and Day 2. She also said that her office would be talking about the committee at two upcoming conferences in July and August.

What do we need a procedure to do?

Alice Shorett referred committee members to the document, "What We Need a Procedure to Do," document #5 in their packets. (Materials from the meeting are available at <http://epa.gov/waterscience/methods/det/faca/mtg20060713/>.) She noted that the

committee had had a substantive discussion of the document at its last meeting when it had agreed to add a characteristic, bringing the total to 14. It had also agreed to task a subgroup consisting of one representative from each caucus to further revise the document based on committee comments. She asked Jim Pletl to explain the modifications that had been made since the last meeting.

Jim Pletl said many of the Technical Work Group's early discussions had focused on deciding the objectives of the pilot study and beyond. The characteristics currently in the document represented those the committee believed were most important in a procedure. He said these characteristics were taken primarily from the procedure-characteristics matrix that the Technical Work Group had developed early in the process. Once the characteristics were defined, the group needed to talk about how the committee would measure those characteristics. He said the revised version of the document attempted to define how each of the objectives would be evaluated in the final procedure. He said the goal at this meeting was to get final input from the committee and finalize the document for use in evaluating procedures.

A committee member asked about the need for on-going verification and whether it was adequately addressed in the characteristics document. He suggested adding a characteristic describing how the committee was looking for on-going verification. Mr. Pletl responded that the general intent of on-going verification was covered in characteristic number six ("...adequately represent routine variability in lab performance"). The idea was that this was a living, breathing process to collect information. The committee had not said that it wanted to verify performance at any particular frequency.

The committee member responded that if the committee were to get into a discussion of multi- or inter-lab procedures, variability could be incorporated over time, but that it did not necessarily continue beyond some specified time. He also said that data gathering needed to have built into it some on-going verification, which went beyond the scope of characteristic number six as he understood it. He suggested the Technical Work Group might want to explore, as an assignment, refining the procedures to accomplish the goal of these characteristics.

Another committee member raised concerns about characteristics 3b (Comparing the false positive rate of lab blanks at the estimated levels of L_C to those predicted by the procedure(s)) and 5b (Requiring modification of L_Q or L_D if all spikes at L_Q or L_D were not detected). With regard to 3b, the member suggested that, based on past performance, a procedure could not adequately predict future performance. With regard to 5b, the member had an issue with the discussion of modifications and suggested revising 5b to say "re-determination" rather than "modification." Bob Wheeler, facilitator, asked if "...modification or re-determination as appropriate..." was an acceptable revision. Jim Pletl suggested revising the entire sentence to being, "Revise L_Q or L_D ..."

With regard to creating another characteristic, Richard Reding, EPA, acknowledged the long-standing concern with on-going verification. However, he thought most of those concerns were addressed in the current characteristic number six.

The following language for a new characteristic was proposed to the committee.

“Perform on-going verification of estimates. To be evaluated by:

- a) Continuously analyzing periodic blanks to assess the estimate of L_C .
- b) Continuously analyzing periodic low-level spike samples near L_Q to assess the estimate of L_Q .
- c) Recalculating limits at a frequency that captures variability in performance relative to MQOs.”

Another member suggested that the document was a little vague about the appropriateness and intent with regard to long-term committee recommendations and that the document could probably benefit from further work and refinement. Committee members identified intent language from an earlier meeting summary and suggested the language be included as an introduction to the “What do we need a procedure to do?” document. Finally, a committee member suggested removing the appendix given the previously-discussed confusion on the MQO decision at the last meeting.

Alice Shorett summarized the suggestions, asked for a vote on all of the revisions discussed, and framed the action as follows:

Action: The committee agreed to further refine the document describing characteristics the committee needs in a final procedure by:

- Adding language in the introduction to read: “...the committee generally agreed that the list of characteristics should be built with the final recommendations in mind and that those characteristics should drive the pilot study to test whether procedures met those characteristics. Committee members also generally agreed that the pilot test was an opportunity to inform the committee’s final recommendations and that some of the characteristics might be refined as a result of the pilot study data.”
- Revising characteristic 5b to read: “Requiring revision of L_Q or L_D if all spikes at L_Q or L_D are not detected.”
- Adding a new number 7 that would read: “Perform on-going verification of estimates. To be evaluated by:
 - a) Continuously analyzing periodic blanks to assess the estimate of L_C .
 - b) Continuously analyzing periodic low-level spike samples near L_Q to assess the estimate of L_Q .
 - c) Recalculating limits at a frequency that captures variability in performance relative to MQOs.”
- Removing the appendix.

Vote: Agree = 19; Not opposed = 1; Opposed = 0; Absent = 1

Pilot Study Design

Bob Wheeler described the purpose of discussing the pilot study design at this point in the meeting and asked committee members to refer to “Proposed Pilot Study Design” and “Features of the Pilot Study and Desired Features of a Post-FACDQ Pilot Study,” documents #6 and #7 in their packets. (See <http://epa.gov/waterscience/methods/det/faca/mtg20060713/>.) He recalled that at the March meeting, members had tasked a Pilot Study Design Team (a subgroup of the Technical Work Group) with developing the details of the pilot study. The committee had also made several other decisions related to the pilot study, primarily in establishing measurement quality objectives.

Mr. Wheeler then described some of the features of the pilot study. He described the process the Technical Work Group had gone through in developing the “features” document for the committee. He noted that the document was formatted to coincide with the 14 characteristics the committee had previously agreed to use in evaluating final procedures. He explained that the document contained a section summarizing what the pilot study would not accomplish, which was further explained in the sections proposing what a post-committee confirmation study might address.

Richard Reding, EPA, gave a brief update on the status of the pilot test bidding process. He said EPA currently had six bids from labs and that EPA was actively trying to solicit bids from more labs. He said some non-profit labs had submitted bids that requested payment for costs only associated with running the test and not for overhead or other such costs.

Mr. Wheeler asked for comments. A member said that the Industry caucus was concerned that the “features” document did not fully describe the limitations of the pilot study. He said a previous version of the document had delineated the limitations of the pilot. That version had been toned down because there was concern that the group had not accurately captured what the pilot would do. He requested the earlier version of the document be redrafted to explicitly describe what the pilot study would not do so that it was clear. He said the current version captured all the comments, but it was not clear that the comments were concerns about the limitations of the pilot study. He said it would be best to have explicit statements of what the pilot would do, what it would not do and what the committee would recommend in a post-committee confirmation study.

A committee member raised an issue of fairness in assessing the procedures in the pilot study. He said the study design, on page 6, stated that procedures could be modified. He said the study design needed to delineate the procedures that were modified from those that were not modified and describe why they had been modified. He said nearly all of the procedures being evaluated had representatives on the Pilot Study Design Team. Other people interested in this process, who were part of the Situation Assessment and who had procedures that were not being evaluated, needed to know the committee had fairly analyzed all of the procedures in the pilot.

A member of the Pilot Study Design Team responded that procedures had been modified to omit the use of L_D and to include an estimate of quantitation because they had originally been estimates of L_C .

Another committee member suggested clarifying the roles and responsibilities of the Technical Work Group and the contractor. The member also suggested expanding the detail on the study schedule summary and responsibilities, pages 20 and 21, to be clear about everyone's roles, including procedure developers.

Finally, with respect to the Aroclor issue and the decision to use existing data from the Michigan Manufacturers Association (MMA) study, a member noted that researchers in the Great Lakes region were measuring PCBs in ambient water several orders of magnitude below the actual limits. This had been going on for more than 20 years. The member noted that the MMA study had several limitations; for example, results of the detection limits were measured in parts per trillion and that the study does not incorporate all current technologies.

Committee members discussed limitations of the pilot study. Several members commented that the purpose of the pilot was to evaluate the reliability of each procedure in estimating limits. Whether these were optimum for measuring PCBs or any other parameter did not matter. What mattered was that the procedures adequately estimated the limits. The pilot was not intended to find out how the methods performed or what they could achieve, but what a lab could achieve using any particular method with different procedures.

A member suggested removing Attachment B from the document. The committee agreed that Attachment B and any reference to it in the document should be removed.

In response to a comment regarding Lab Quality Control (page 10, fifth bullet – “Reflecting routine analysis, blanks should be as free from contamination as possible”), the Pilot Study Design Team explained that the intent was to have labs perform the methods as written and nothing different from what the method required. The labs would make any corrective actions indicated in the analytical method. This led the committee into a discussion of outlier tests to remove errant or spurious data. Mr. Reding explained that the solicitation required weekly reports from the labs. If the labs started the 15-day collection process early in conducting the pilot study, errors would be identified in time for a batch to be rerun. The intent of the current design was to avoid highly-specialized conditions and allow the labs to run the methods as they were written. Mr. Reding said that since bids were in, EPA could go back to the labs that had submitted bids to clarify the intent of following the methods as written.

Action: The committee accepted the pilot study design, excluding Attachment B, and recommended moving forward with the pilot study.

Vote: Approve = 18; Not Opposed = 1; Opposed = 0; Absent = 2

Action: The committee agreed to send the “Features” document back to the Technical Work Group to provide more detail about what the pilot study would not do.

Technical Work Group Questions

Bob Wheeler referred the committee to “Technical Work Group Products, Approvals, Questions, Potential Assignments” and “Proposed Limit Calculations/Analysis to be used in Pilot Study,” documents #8 and #9. (These documents are available at <http://epa.gov/waterscience/methods/det/faca/mtg20060713/>.) He said the focus of this session would be on the questions the Technical Work Group had for the committee, specifically regarding data analysis and pooling of data.

A member noted for the record three additional potential assignments for the Technical Work Group that were not included in document #8. He said it was pretty clear the committee could not explore in the pilot study item 7 on page 10 of the “features” document – “be capable of calculating limits using matrices other than lab reagent grade water.” He said there was no procedure under consideration that addressed this issue. Additionally, the member said that a process needed to be in place for how the committee would make adjustments in situations where method blanks were intermittently contaminated (item 10). Finally, he recalled that the committee had talked earlier about on-going verification and that some of the procedures currently under consideration did not include on-going verification. He asked the committee if it planned to find a way to incorporate those processes in the procedure(s) or whether the procedure(s) should no longer be considered.

Presentation from Ken Miller, EPA Technical Contractor

Following a presentation from Ken Miller (available at <http://epa.gov/waterscience/methods/det/faca/mtg20060713/>) regarding considerations on calculations and data analysis, Mr. Wheeler asked committee members over the lunch break to respond to the questions posed by the Technical Work Group on data analysis and data pooling and to return those responses to the facilitation team after the break.

Straw Proposal of Uses

Following lunch, Alice Shorett reconvened the committee for a discussion of the straw proposal on uses. She first thanked the subgroup who had worked hard to pull together the draft straw proposal currently before the committee. She reviewed the process the subgroup had used to develop the straw proposal – a face-to-face meeting in Chicago followed by several conference calls – and telephone calls with each caucus prior to the meeting. The facilitation team handed out a worksheet arraying where the committee was with regard to consensus decisions for each proposal, as well as the alternatives and suggestions for moving the straw proposal forward. This worksheet was a summary of work efforts that each caucus did during their conference calls and through further calls and email efforts prior to the FACDQ meeting. She then asked members of the subgroup if they had any comments for the committee.

Chris Hornback said that where the caucuses were in Chicago was a little different than what was reflected in the proposal. The subgroup had tried to think “outside of the box” and the constraints of what currently exists to come up with a real solution because the reality was that the committee needed to come up with a real solution to each of the uses issues.

Tom Mugan encouraged the committee to think about the purpose of uses. He said that values that fall between L_C and L_Q were not intended to mean that regulators should take immediate action, but were intended to represent the confines of where actions needed to be taken to improve water quality. He said there was a long section in the proposal discussing the parameters for a pollutant minimization program that attempted to capture the essence of what could happen when a value fell below L_Q . He said the big picture point of view was some sort of tiered approach to address values that fell between L_C and L_Q before any regulatory action was taken.

Michael Murray added that, in light of the fact that some states were reporting down to L_C , his caucus’s perspective was to use all the information available.

Larry LaFleur said that the process the subgroup had used in Chicago included the understanding that the group would listen very carefully to everyone’s positions and issues and seek a way to find common ground. There had been an honest attempt to do that, but things had changed from the Chicago subgroup meeting to the Policy Work Group’s discussions. He encouraged the committee to continue to listen to each caucus’ position and seek common ground among all of the interests.

Mary Smith said that a lot of the discussion in Chicago had focused on the good points that every caucus had made. She said what struck her about all those good points was why the committee was together around the table – to make some hard policy decisions. She said she felt like she had been wearing two hats in Chicago: one as a part of the subgroup discussing the straw and one as a representative of her constituency.

Ms. Shorett asked for comments from each caucus concerning the following straw proposals for each use. (Note: some caucuses referred to these numbers in their reports.)

1. Setting Permit Limits: Set permit limits at the WQBEL. (Another opinion was that permit limits should be set at L_Q when the WQBEL is less than L_Q .)
2. Calculating Averages for Compliance and Enforcement: Above or equal to L_Q , use the actual value obtained in the analytical test. Below L_Q , assign “0”. (Another opinion was to assign a numerical value or to use a value substitute, e.g., $1/2 L_C$, L_C , or possibly a multiple of L_C .)
3. Evaluating Compliance and Enforcement: Use L_Q for daily limits. Use the WQBEL for monthly averages calculated using the approach in #2 above. (Another opinion was that L_Q should be used for all cases.)

4. Analytical Data Reporting for Reasonable Potential Analyses (by permittee):
Assuming a robust reasonable potential evaluation process is in place:
- All values will be reported above L_Q .
 - Information below L_Q will be reported as “Detected but Not Quantified (DNQ),” for example.
 - Information below L_C will be reported as Not Detected (ND).
5. Analytical Data Reporting for Compliance and Enforcement: From the lab to the permittee and from the permittee to the regulator (for daily limits), and assuming a robust reasonable potential evaluation process is in place:
- All values will be reported above L_Q .
 - Information below L_Q will be reported as “Detected but Not Quantified (DNQ),” for example.
 - Information below L_C will be reported as Not Detected (ND).
 - From the permittee to the regulator only, another opinion was that nothing below L_Q should be reported for compliance and enforcement purposes.

From the permittee to the regulator (for monthly averages): report the individual test results and the numerical value of the monthly average per the sub-bullets above.

6. Analytical Data Reporting for Listing Impaired Water Bodies: Do not develop recommendations for how to use data for 303(d) listings for the following reasons:
- This is a complex process that does not depend totally upon Part 136 analytical methods and it would require an effort to fully educate the committee on this process.
 - However, if an opportunity arises to link this process to uses and approaches for detection and quantitation, and if the FACDQ has an education process about 303(d), then the FACDQ could revisit this issue prior to the final recommendations.
7. Considerations for Prescriptive and Descriptive Approaches¹:
- Promulgate national detection and quantitation limits.
 - Include a robust procedure in the promulgation (i.e., the procedure is a result of FACDQ pilot testing and analysis).
 - Publish a table with the rule describing the most sensitive methods.
 - Identify and prioritize the analytical methods to be updated.

States

Bob Avery presented the results of the state survey on uses. Thirteen states had responded. In one case where two responses had come from one state, some caucus members worked with that state to reconcile their comments into a single answer. He reviewed the responses and comments received on each of the seven proposals in the uses

¹ See also Document #8 from the 4th FACDQ meeting (March 29-30), titled “Prescriptive and Descriptive Approaches for Detection and Quantitation in Clean Water Act Programs.”

straw. He summarized the comments and said that if anyone had a reaction to any of the comments to please ask the caucus about it. (See [http://epa.gov/waterscience/methods/det/faca/mtg20060713/.](http://epa.gov/waterscience/methods/det/faca/mtg20060713/))

Question: When you say report, are you talking about Discharge Monitoring Report (DMR) reporting and if it would have to be certified?

Response (Dave Akers): We are just interested in getting the information, whether it is on the DMR or an attachment to a DMR.

Question: You got a response from about a quarter of the states. Do you have a sense that the response is representative?

Response (Bob Avery): We have no way of knowing what all of our constituents are thinking or doing. We cannot say whether or not this is representative.

Response (Tom Mugan): In some cases states report down below L_C , and, in other cases, states do not want to know any information below L_Q .

Question: How about representation geographically in terms of EPA regions? Was it mixed up around the country?

Response (Dave Akers): We talked to some states that said they have received quite a bit of direction from their representative EPA Region. Others have not.

Response (Bob Avery): We received responses from the following states: Kansas, West Virginia, Louisiana, Wisconsin, Tennessee, Alabama, Maryland, South Carolina, Utah, Michigan, Colorado, and Florida.

Question: What purposes are there to have the values reported numerically below L_Q ? Did your question say to include the J-flag numerical values?

Response (Bob Avery): States have a variety of uses for databases. While regulatory use is prominent, monitoring trends and other uses are included. We did not specify that DNQ could not be used. In Michigan, we are not opposed to a text answer, but if it is used, then we also request the L_C and L_Q values that give us an idea of what levels were being tested.

Response (Dave Akers): There was one state that disagreed with using WQBEL; they use L_Q . For reporting purposes, they wanted to know what the value was between L_C and L_Q .

Response (Bob Avery): When the WQBEL was lower than the L_Q is when we wanted to have a numerical value. We have not precluded the use of DNQ, but we would like the numerical value. In terms of the "J-flag" or some other qualifier, we have talked in previous conversations about the flag getting stripped off and the meaning of that loss. We think database issues like that can be corrected so that flags can have some sort of meaningful value.

A member commented that some existing regulations require reporting additional data when it is collected. This is usually written into permits. He said the committee needed to ensure it was not moving toward something that conflicted with existing regulations.

Industry

John Phillips reviewed his caucus's position on each proposal.

1. He said his caucus reserved the right to submit a minority opinion on this.
2. His caucus supported the proposal as written.

Larry LaFleur interjected that his caucus added the following caveat to its responses on the remaining uses proposals: "assume that at some point the committee will set MQOs that will adequately address the issue of matrix effects."

3. Mr. Phillips said that his caucus broke proposal #3 into two pieces. The caucus supported the first part of the proposal and agreed that good MQOs needed to be established for the quantitation limit and that matrix effects needed to be accounted for. His caucus wanted to reconsider various options if the WQBEL were less than some fraction of the L_Q .
4. His caucus agreed with the assumption that a robust reasonable potential analysis process would be in place.
5. He said it was important to his caucus to keep what was on the DMR separate from any other data that was reported. The information on the DMR had to be certified that it was true and accurate. Mr. LaFleur added that his caucus believed that only compliance data gathering should go into the DMR.
6. Mr. Phillips said his caucus agreed with proposal #6.
7. His caucus supported nationally-promulgated detection and quantitation limits and supported whatever procedure would be promulgated in a rule. However, his caucus did not feel it was within the committee charter to prioritize and recommend analytical methods that needed updating.

A member noted that federal regulations require reporting all data, even if the data were collected in a place other than the outfall pipe. No effluent monitoring data could be omitted.

Larry LaFleur responded that any additional monitoring done on a 40 CFR method had to be reported. He clarified that his caucus was asking that additional monitoring information not be included in the DMR.

Environmental Community

Michael Murray said that the proposals were a little incomplete in terms of clarity and consistency. He said the bottom line for his caucus was that it preferred more information. His caucus preferred a situation where values were used between L_C and L_Q . For proposals number 4 and 5, his caucus saw only one option – to report a value between L_C and L_Q . Regarding the proposal for number 7, he said his caucus had previously stated its concerns with a prescriptive approach and had concerns about the possibility of locking in higher limits.

Barry Sulkin added the following four points:

- First, the committee should stop talking about values greater than L_Q , because they all agreed that those values would be used.
- Second, he said he had seen a robust reasonable potential analysis process only one time. Most states did not conduct a reasonable potential analysis, but instead picked permit limits from a chart. The committee should not make the assumption that a robust process would happen.
- Third, with regard to pollutant minimization programs, he said he was currently dealing with permits that were in their 20th-plus year of figuring out what happened. The committee should not perpetuate that situation.
- Fourth, his caucus proposed getting rid of proposal #6. The caucus also wanted to change the name to “Uses for 303(d) listing,” because there is no impaired water body list.

Public Utilities

Zonetta English reviewed her caucus’ position on each proposal. She said that

1. Her caucus agreed with the first proposal.
2. Her caucus agreed with the first choice in the second proposal.
3. She said her caucus agreed with using L_Q for daily limits but was not clear about the proposal for monthly averages.
4. For this proposal, her caucus’ position was that for values greater than L_Q , the values should be used; between L_C and L_Q , “DNQ” should be used; and below L_C , “ND” should be used.
5. Her caucus agreed with the second bullet and was not clear on the third bullet.
6. Her caucus agreed with this proposal.
7. Her caucus disagreed with the proposal; it did want a table in the rule.

David Kimbrough added that a week previously, he had participated in a meeting on this topic in Los Angeles with colleagues from across the state. He said people were open to the option of using L_Q , but the problem was whether it was prescriptive or descriptive. A lot of people had been confused by proposal #3. For proposal #7, almost everyone was in favor of a completely prescriptive approach. If a table were not published in a rule, prescriptive limits would be set only with a new method, which did not address the problem with the existing methods.

Environmental Labs

Nan Thomey said that in the past, her caucus had always abstained on the issues addressed in proposals 1-5. This time, her caucus thought it needed to respond so that people understood her caucus’ positions. She said her caucus could basically live with the proposals with the exception that the labs did not want their customers to be asking for several different things (e.g., report “DNQ” on this set of samples, report a number with a flag on that set, etc).

She said her caucus believed the concept of a table in a prescriptive approach was outside the committee’s scope. Regardless of what was determined, the lab would still need a descriptive process. She said the committee needed to spend its time focusing on the

issue of prescriptive and descriptive processes. She said she believed there was a presumed assumption that the most sensitive method was the best one. As soon as a table would be published in a rule, people would refine their approaches and find lower limits than those published in the table.

Richard Burrows said that, in general, people were in favor of the “DNQ” reporting concept. It was quite likely that no matter what the committee decided, some customers would ask the labs to report values down to L_C . He said that in looking at whom actually had control of what was required, it was the states. Even if the committee achieved the worthy goal of coming to consensus on this issue, he said it did not really seem to matter that much on the ground, which raised the issue of how much time the committee had spent discussing the issue. He said a nationwide prescriptive limit made sense for drinking water. For wastewater, on the other hand, it seemed unlikely that the committee would come up with a single number for a single analyte that would be acceptable in all situations.

A member responded that the states did not operate in a vacuum and that a lot of actions states took incorporated input from stakeholders. The states did take into consideration other entities’ interests. He said it was very important for the committee to have this discussion, because the recommendation from the committee would be used as a tool to make changes, possibly in states or at EPA regions. Another member noted that while states were not supposed to operate in a vacuum, they sometimes did. It was important and useful that the committee do something to change minimum EPA regulations, because states were at least obligated to comply with them.

The committee then briefly discussed the difference between prescriptive and descriptive processes and made the following points:

- A descriptive process was needed in order for a laboratory to be able to generate limits that they could defend.
- Prescriptive values were not going to be acceptable by everyone all the time.
- Labs work for a variety of clients, many of whom were not working on regulatory projects but on monitoring projects.
- Without a descriptive approach, perhaps in conjunction with prescriptive aspects, labs felt it would be difficult to satisfy the needs of their clients.

EPA

Mary Smith recalled that she had spoken earlier about her outreach within EPA. She said that the Office of Enforcement and Compliance Assurance and the Air permits program were probably the most engaged in the six or seven proposals in the straw. She said that the other offices did not have the same focus that her program dealt with under the Clean Water Act, although most cared about data reporting because everyone generates data.

She said she had heard a variety of approaches across EPA offices. There was broad acknowledgement that this committee was established for Clean Water Act purposes only. While committee members might come to the table with another perspective, the

committee's charter focused on the Clean Water Act. The more her office thought about whom to involve and why, it became increasingly apparent that she did not really need to come to the table with an all-EPA position. If an all-EPA position were needed, then the other offices would need to reach out to their constituents, which would add a lot of time. Therefore, she said she was at the table with an EPA Office of Water position.

With regard to the straw proposal, she said the Office of Water supported all parts of the straw proposal except one section – the monthly average. Rather than using zero for the monthly average, she said the Office of Water would use the detection limit in the average. She was not sure whether or not her office would support publishing a table in a rule. The principle focus of the prescriptive/descriptive issue was whether or not a decision would apply individually to specific labs or nationwide. She said her office would not be opposed to a combined approach. However, if compliance were set at L_Q , her office would need to know what that limit was, and that limit would need to be the same across the country. Her office did not want facilities to go lab-shopping for desired limits.

Question: Can you explain the change in the use of zero for monthly averaging?

Response (Mary Smith): If the value is below L_C , we would set it to 0. If the value is between L_C and L_Q , we would use the value of the detection limit, because in that case, we know it is not zero. We would want to use some value.

Question: I am curious about the comment that you do not want facilities to go lab-shopping. The fact is that they do go lab-shopping for price and some Data Quality Objective (DQO) they are trying to obtain. If we were to remove the DQO option, then we would often end up with the very inexpensive labs generating a lot of data without a lot of data quality. I wonder if we would lose something if we took out the DQO aspects.

Response (Mary Smith): What I meant by lab-shopping referred to the case if different limits existed between labs. Would people look for the number they wanted to minimize their compliance actions?

Question: Are you applying zero to the daily limit and the monthly average? By the way, you just made a great sales pitch for why MQOs are needed for this program.

Response (Mary Smith): No, that was just for the monthly average.

Question: Regarding the use of zero, I question whether there is concern about skewing data by using zero. Using L_C would skew the data high; using zero would skew it low, according to Currie.

Response (Mary Smith): We might be flexible and look at other options, too. Maybe we are fixated too much on publishing a table in the rule. The issue most people seem to have is listing the most sensitive method. The idea early on was to make it a simple reference place for limits.

A member commented that Florida has used a combined descriptive/prescriptive approach for years, because they have had facilities that were shopping for limits that

were higher than the WQBEL or the limits in their permit. But Florida has had to do it for every single method. It was very difficult to keep current with technology. New methods should have targets to meet since there is an appeal for compliance and enforcement purposes, but implementation of it would be very difficult. The committee should not lose sight of the fact that this was the problem it was called together to fix.

Another member responded that with regard to the issue of having to use the most sensitive method – that would be an issue for only a handful of analytes. It was important that everyone have to live with the same rules.

Discussion of Each Proposal

Alice Shorett then asked the committee to discuss each proposal, focusing first on the ones where there was general agreement on the proposal.

Proposal #6

Action: The committee agreed to accept the straw uses proposal #6 as written, with a revised title of “Uses for 303(d) Listing.” The proposal and new title were as follows:
Uses for 303 (d) Listing: Do not develop recommendations for how to use data for 303(d) listings for the following reasons:

- This is a complex process that does not depend totally upon Part 136 analytical methods it would require an effort to fully educate the committee on this process.
- However, if an opportunity arises to link this process to uses and approaches for detection and quantitation, and if the FACDQ has an education process about 303(d), then the FACDQ could revisit this issue prior to the final recommendations.

Vote: Approve = 20; Not Opposed = 0; Opposed = 0; Absent = 1

Proposal #1 – Setting Permit Limits: Set permit limits at the WQBEL. (Another opinion was that permit limits should be set at L_Q when the WQBEL is less than L_Q .)

Mary Smith asked the Industry caucus whether or not its position to reserve the right for a minority position depended on the totality of all the proposals or on this proposal. Larry LaFleur responded that his caucus had not heard anything that had substantially changed his stakeholders’ positions. However, he said that if his caucus heard something different, then it would come to the next meeting and change that position.

Proposal #2 – Calculating Averages for Compliance and Enforcement: Above or equal to L_Q , use the actual value obtained in the analytical test. Below L_Q , assign “0”. (Another opinion was to assign a numerical value or to use a value substitute, e.g., $1/2 L_C$, L_C , or possibly a multiple of L_C .)

The committee began by acknowledging that existing federal regulations require all data, whether as part of a permit or additional monitoring, be reported on the DMR. There was some confusion as to what “other management practices” meant. The committee

requested that this section be more specific about the activities envisioned other than enforcement for values between L_C and L_Q , the proposal needed to be specific about the steps that could be taken.

The Environmental Laboratory caucus expressed concern that this proposal might result in an inconsistent approach: one customer would ask for one approach for an analyte, while another would ask for a different approach for the same analyte. Requiring different reporting under different conditions could raise the possibility of errors.

The committee discussed the fact that states have a variety of approaches with regard to reporting. This proposal appeared to be a compromise position that could be palatable to states. Still at issue was how a level that was reported to the agency gets translated when it is a comment rather than a numerical value (e.g. DNQ). The L_Q and L_C limits are specific numbers hard-coded into the LIMS systems. The report from these systems could be tailored if the value were less than L_Q to print "DNQ" or "(result) J" or "< L_Q ."

The Environmental Community caucus said its position on this proposal was for the alternative. Its preferred language differed slightly from the State caucus' proposal. Assigning zero for anything below L_Q minimized the huge amount of work being put into estimating L_C .

A committee member commented that there was a huge difference between L_C and zero. However, the range between L_C and L_Q was very small. Another member suggested that for the regulated industry, it seemed that if a standard were imposed below a detectable level, and a permittee was monitoring and getting detects, the permittee would want to know the values of those hits. The regulators would also want to know whether those levels were ascending or descending.

Several committee members suggested that it was important to see whether there were ways to find compromise and that it would be helpful to know where caucuses could negotiate.

A committee member summarized three basic concerns he was hearing in the discussion on uses: (1) some caucuses were concerned about the logistics of reporting; (2) some caucuses were concerned about the legal liability around reporting "DNQ" (or some reporting convention other than the actual value) on a DMR; and (3) some caucuses wanted all of the information to be available. He said if these three accurately represented the categories of concerns around the table, the committee needed to focus on acceptable solutions to meet those concerns. He said that if the committee was trying to think outside the box, and that data would not be reported less than L_Q on a DMR, then the actual numbers could be reported elsewhere, outside the realm of legal liability.

Some committee members interpreted this proposal as trying to establish a mechanism for reporting numbers that would be outside of a reporting system that has regulatory and legal ramifications. It was noted that the committee had to make sure its actions were consistent with the Clean Water Act.

Public Comment

No public comments were made during Day 1 of the meeting.

Wrap-up and Adjourn for the Day

Alice Shorett suggested that the committee review the proposals during the evening and that the committee reconvene on Day 2 prepared to move forward on the proposals. She encouraged caucuses to meet over the evening to identify opportunities for negotiation.

Richard Reding, DFO, adjourned the meeting at 5:35 PM.

Day 2 – Friday, July 14, 2006, 8:00 AM – 3:00 PM

Welcome and Agenda Review

Richard Reding, DFO, wished everyone a happy Bastille Day and opened the meeting at 8:15 a.m.

Alice Shorett summarized the items the committee needed to address over the morning:

- Meeting summary #4
- Data analysis
- Need for an additional meeting
- Topics to raise with Michael Shapiro and Ephraim King
- Uses proposals

She said the committee would put aside a discussion of the final report outline. If there were time at the end of the meeting, the committee could briefly take it up then.

Additional Discussion of Meeting Summary #4

Alice Shorett reviewed two possible additions to the draft summary that were suggested after yesterday's discussion and asked for comments. There were no comments regarding the added language addressing MQOs by the committee in the future but there were several comments about the discussion leading up to the committee action on setting MQOs for the pilot.

Some committee members felt that, if a longer discussion was going to be added to the summary leading up to this particular decision, then all caucus comments needed to be included. If that were the case, the committee and facilitation team would refer to the tapes. The committee also felt it was important to characterize the question as it was put to the committee in the decision box to provide the context for the decision.

Other committee members cautioned against going back on a decision that had been made at the previous meeting. If committee members did not agree to the wording of a decision that needed to be stated in the meeting and the decision would need to be amended to accurately reflect the consensus of the group.

Ms. Shorett recommended that the committee not approve the draft summary from meeting #4 at this meeting. She said the facilitation team would go back to the tapes and transcribe the section in question. A small group of representatives from the caucuses would review the transcript and draft an acceptable paragraph describing caucus discussion for committee review and approval at its December meeting. She said there did not seem to be disagreement around the other additions to the draft notes regarding the review of MQOs again later in the committee's process. The facilitation team would accept that revision in the summary. She also said that in the future, when the committee was taking a decision, it would always be written out for the committee to review.

Action: The committee agreed to postpone approving the draft summary of Meeting #4 until the next FACDQ meeting. In the meantime, a revised draft of the discussion surrounding the decisions on MQOs would be prepared using the transcript of the meeting. Both the transcript and redraft would be shared with a small group of representatives from the caucuses to ensure accuracy of the discussion for purposes of meeting summary approval at the December meeting. The committee also agreed to include a statement about revisiting the setting of numerical MQOs after completion of the pilot study.

Discussion of Data Analysis for the Pilot Study

Bob Wheeler summarized comments from the caucuses on pilot study priorities for data analysis and calculations. He said that all caucuses considered confirmation of MQOs to be a high priority. At the other end of the spectrum, ruggedness testing was viewed as a lower priority. He said that based on input from caucuses, upper, lower and average values were important to examine in terms of pooling data. The committee also said that a graphical representation of the results was important. Mr. Wheeler then asked if there were other comments or additions to the summary. In response, the committee discussed the need for a process to remove outliers. There could be a couple of cases where one or two labs had mislabeled a container and analyzed one spike level when they recorded a different spike level. If the procedures were followed as written, data were generated and the lab followed all of its quality control procedures, the outliers should be removed. On the other hand, obvious mistakes happened in labs, so after the committee reviewed the data from the pilot study, it could decide to apply a statistical removal process.

Mr. Wheeler said the Technical Work Group would continue to address this type of detail as the pilot study moved forward. The committee's general concerns were in developing processes or requirements that would unnecessarily reshape the distribution of the data or cause special conditions under which labs were collecting and analyzing the samples. Richard Reding added that he could clarify with all the labs that submitted bids that EPA's intent was for the labs to follow the procedures and all lab quality control processes.

A member suggested the Technical Work Group could go through the table of priorities, identify, and try to address all the high priorities, then move through the medium priorities and, time permitting, review the low priorities. The member suggested the

Technical Work Group work with EPA and the contractor to see what could be accomplished in the timeframe available. In the meantime, the Technical Work Group could provide the committee with informative status updates. If, within the resources available, the Technical Work Group were not able to address a specific caucus' needs, perhaps that caucus could analyze the data.

The committee discussed the need to direct the Technical Work Group to address the "low hanging fruit" of data analyses and calculations. The committee discussed several options for the Technical Work Group to consider, such as ruggedness testing; defining quantitation in terms of precision or bias, or both; mixing and matching some procedures; applying the ASTM procedure in a single lab context with data calculations; and establishing confidence intervals for the estimates.

Mr. Wheeler summarized the discussion and asked each caucus to submit a new worksheet, prioritizing each of the data analyses and calculation options, using a one for the highest priority, two for the next highest, and so on. He suggested the committee direct the Technical Work Group to pull together a document summarizing progress that would be distributed to the committee in August/September 2006. Committee members would submit comments through each caucus' representative on the Technical Work Group, which would synthesize and develop a plan for the data analyses and calculations.

Discussion of an Additional Committee Meeting

Alice Shorett introduced this topic by recalling a request made the previous day to consider an additional meeting or meetings. She said that the facilitation team had heard similar requests in caucus calls for at least one additional meeting to address other issues during the pilot study.

In discussions of the merits of having another meeting, many members felt that significant progress had been made the previous day, but that, overall, the committee had been slow in making important decisions. They asked to focus solely on several outstanding policy issues at the next meeting, recognizing that some of the policy decisions had technical components that would need to be incorporated into the discussion. In light of the fact that several caucuses would need to circulate among their constituencies any policy decisions the committee made, committee members generally felt it would be better to have more time to vet those decisions with caucus constituencies and then come back to the table with additional input.

The committee then discussed agenda topics for a next meeting, assuming one would be added to the schedule, including the following: further development of a proposal on uses, matrix effects, MQOs, procedures, additional uses and the final report. A request was made to schedule a three-day meeting, given the decisions that needed to be made. Members agreed to a three-day meeting, so long as each individual would commit to using the time to find compromise and move decisions forward.

Larry LaFleur said that he also wanted to discuss extending the committee charter. Ms. Shorett asked for reactions from each caucus on the possibility of extending the charter to accomplish the committee's purpose.

The State caucus agreed that the time crunch in the end necessitated an extension but suggested setting a limit on the extension. The caucus had talked about six months and any number of meetings that could be squeezed into that timeframe would be a good goal.

The Public Utility caucus also supported the idea of an extension, primarily because of the amount of work that needed to be done. It felt it would not be feasible to produce a quality product within the current timeframe and thought that a minimum of two additional meetings would be necessary.

The Environmental Community caucus supported an extension and did not specify a timeframe. The caucus also asked whether it was still possible to consider a change of venue.

The Environmental Lab caucus was mixed. Steve Bonde said it would be very difficult for him to consider an extension; he was taking personal leave days from his job to participate in this effort and was not getting a lot of support. Nan Thomey, as a small business owner, said she needed to be able to justify her participation against generating business. She said she supported an extension if a genuine effort would lie to rest these issues that had been discussed for the last 20 years. Cary Jackson said he did not support extending the committee charter but was in favor of having more meetings within the existing timeline. He said the committee needed to focus more on time management in meetings and to make decisions. Richard Burrows said that there was going to be a lot of information to digest from the pilot study, and the intent all along had been to use these data to help the committee make policy decisions. That effort would require negotiations and so it was likely that the committee was going to need more time.

The Industry caucus perspective was that one of the primary values of extending the committee's charter was to have time to focus on the enormous amount of data that the pilot study would generate. The committee needed to understand what the data was saying and whether modifications would be needed to the procedures to make solid recommendations. It was a matter of making the best use of the pilot study.

The EPA caucus supported the idea of another meeting in December 2006. Mary Smith said the committee had been making a lot of progress, but more discussions were needed on uses and other policy issues. She encouraged the committee to discuss this and the extension of the charter with Michael Shapiro and Ephraim King when they would join the committee in the afternoon. She said that the process to renew the charter could take about nine months. She said her office could get the paperwork underway, and at the next meeting in December the committee could make a final decision about whether it would need the extra time. If the decision at that time is that the committee was making

significant progress and would not need to extend the charter, then her office could recall the paperwork.

If the committee charter were extended, the committee agreed to an additional meeting in December and two more meetings after the May 2007 meeting already in the schedule. Ms. Shorett confirmed that the dates for the next meeting would be December 6, 7 and 8, 2006. She briefly reviewed potential agenda items for the meeting and suggested two full days of meetings on Wednesday and Thursday and a half day on Friday. Richard Reding said he would notice the meetings from 8:30 a.m. to 8:30 p.m. on Wednesday and Thursday, and from 8:30 a.m. – 2:00 p.m. on Friday to allow the most flexibility in the agenda.

Action: The committee agreed to add a meeting from Wednesday, December 6 to Friday, December 8 to the existing schedule. The new meeting will be held at the FDIC Seidman Center in Arlington, VA. The committee also agreed to discuss extending the committee's charter with Michael Shapiro and Ephraim King during their afternoon visit with the committee.

Discussion of Uses

Tom Mugan reported on a revised proposal that a small group had developed that morning to replace proposals 1-5 in the straw. He said the basic assumption for the new proposal was that the WQBEL is below or close to L_Q (e.g. for averaging, it also matters when the WQBEL is just above L_Q). The revised proposals were as follows.

1. Set average and daily maximum limits at the WQBEL.
2. When determining average and daily maximum discharge levels, set values less than L_Q equal to zero.
3. To determine compliance, compare discharge levels to the WQBEL after assigning zero to results less than L_Q , as in #2 above.
4. Permittee must report to the regulator on, or as an attachment to, the Discharge Monitoring Report (DMR) information less than L_Q and greater than or equal to L_C , either as numeric values or as narrative text (for example, "DNQ"). If text is used as the result, the L_C and L_Q must also be reported.
5. The regulator may also include specific language in the permit that requires the permittee to take additional steps to assess information or mitigate for potential impacts when detected values are below L_Q . These steps may include analytical studies, pollutant minimization programs, or other permit conditions outside of the compliance determination. Reports under such provision will be done outside of the DMR reporting process, except that any additional effluent testing performed using approved analytical methods as part of the special studies must be reported on the DMR according to the above protocol. When detected values below L_Q are not reported numerically, the regulator may require the permittee to submit numeric data with the permit application for use in determining reasonable potential.

Note: Both items 4 and 5 would require that the lab report to the permitted entity the estimated value for data greater than or equal to L_C and less than L_Q . It would be the permitted entity's responsibility to maintain data for an established period (5 years) during which time the permitting authority could request the numeric data.

Ms. Shorett asked for comments on the revised proposals.

Question: How do you read that "or" statement in #4? Is that up to the permittee or up to the regulator to determine?

Response (Tom Muga): That has not been decided. We put that in as a placeholder.

Comment: This is pretty close to the approach in California. This would have to be done on a prescriptive basis. You have to raise the issue of equitable treatment. There is also a predictability issue. Do we know what our limits are going to be ahead of time? This opens the door for lab shopping.

Comment: As we have discussed, there are permitting authorities that do not require reporting below L_Q . Could we change the language in #4? I also would like to explore whether we could be clearer on how data are going to be reported. The last sentence is not clear to me. If there is already a permit limit, why is a reasonable potential to exceed analysis done again?

Comment: I am concerned about using zero. I am likely to be unwilling to give in on that. If the actual values are reported, I would feel a lot better. We are going to need the back up information to make decisions. I would like to see #4 strengthened. We need the actual number there.

Question: On #4, it would be good to separate the two parts. Could a permittee break out what goes into Part A and what goes into Part C on the DMR?

Response (Tom Muga): Using the reporting convention given in #4, all of the data have to go on the DMR. The data go into Part A and the special studies and other numerical information go into Part C. The special studies are generally not numeric data.

Comment: The intent was not to preclude the states from going further. The intent was to set a national standard. There is regional guidance on reporting results below L_Q as zero on the DMR. That fulfills the obligation to report on the DMR. Even within that framework, there is the ability to report those "DNQs" that allows states to take action as they see appropriate; that is outlined in #5.

Comment: Somehow we need to distinguish between what are really zeros and what are bleeps on the map. The pollutant minimization program wheel has already been invented for toxicity testing. Historically, it was not a violation to have toxicity; it was a violation not to do the testing. We have to put a time limit on the extra steps. Also, the proposal should consider the use of "may" instead of "shall."

Allowing some states to continue doing something that is not such a good idea is what we want to eliminate.

Comment: Regarding matrix effects, we know matrix effects generate false positives, but that is not always the case. The language in this proposal talks about reporting L_C and L_Q when you have detects between L_C and L_Q . Do we need to report L_C when you have detects below L_C ? I see this in #5 as a means of enhancing more sensitive methods to a performance-based measurement system.

Comment: I have concerns about the second section in #5 that those are done outside the permit process.

Question: I do not see comparing limits to L_Q that was in the original straw proposal. Was that left out intentionally?

Response (Tom Muga): At the last Policy Work Group meeting, we discussed that, functionally, this is the same. Any value that is less than L_Q is automatically set to zero.

Ms. Shorett asked the committee to consider whether this proposal could be accepted as a conceptual framework that could be taken forward to add more details on how it could be adapted and implemented. She asked each caucus if there were specific changes or modifications they wanted to see in the proposal.

The Public Utility caucus said that reporting values below L_Q on the DMR was a show-stopper.

The Environmental Lab caucus found the revised proposals acceptable.

Environmental Community

Michael Murray said his caucus had expressed its general concerns, especially reporting zero for anything less than L_Q . He said that in terms of accurately portraying data, there were uncertainties between L_C and L_Q , but also for values greater than L_Q as well. It was not a completely bright line above and below L_Q . He said his caucus wanted numeric values and that his caucus believed that additional steps in a permit could be an enforceable component of that permit.

Barry Sulkin said that he used to prosecute people for falsifying DMRs. Certifying those forms meant the numbers had not been faked or hidden in any way. He said that if zero were reported, chances were that number was farther off than using L_C as the value.

Richard Rediske added that since the committee was going through great effort to define L_C and L_Q , he would like to ensure that at the end of the process people would have access to data between L_C and L_Q . While this data did not have to be on the DMR, it did need to be accessible.

Industry

Larry LaFleur said he wanted to return to the suggestion to modify the language in #4 that the “permitting authority may require permittees to report...” He thought that, unfortunately, there had been a miscommunication in the discussions he had participated in that morning; the current proposal did not look too different from the straw proposal.

John Phillips said that reporting anything on the DMR less than L_Q was not acceptable. He said he supported the idea of submitting data for scientific certainty, but he did not support requiring that information on the DMR.

States

Tim Fitzpatrick said the State caucus would add that anytime the WQBEL was less than the L_Q , the L_C and L_Q would also be reported.

Tom Mugan asked Mr. LaFleur to expound upon the miscommunication that had occurred in developing this alternative proposal for the benefit of the committee.

Mr. LaFleur said that he had earlier thought the group was talking about using zero for calculations. The “not-to-exceed” limit was good. The discussion of how averaging data would be handled was not to determine whether the permittee was out of compliance but a stepwise enforcement action. He said the basic assumption had stemmed from other conversations that no permit authority would act on a single data point. Determining averages would not lead to enforcement actions but to other actions to mitigate for the parameter. Also, he said he thought the WQBEL was a trigger for additional steps, not for enforcement action.

EPA

Mary Smith said her caucus needed more clarity on proposal #4. With too many choices, there could not be consistency. Instead, the committee needed to pick either a value or text. She also reminded people that in the Great Lakes Initiative, pollutant minimization programs were required. With so much weight being placed on the L_Q value, the committee needed to deal with prescriptive/descriptive issues as a part of the package.

Ms. Shorett suggested that the Policy Work Group consider the discussion in further work on uses.

Conversation with Michael Shapiro and Ephraim King

After a lunch break, Alice Shorett reconvened the committee and welcomed two guests from EPA: Michael Shapiro, Deputy Assistant Administrator for the Office of Water; and Ephraim King, Director of the Office of Science and Technology. She quickly summarized the committee’s progress over the last day and half: the committee had accepted the pilot study design and authorized it to proceed. The committee had also provided guidance to the Technical Work Group on data analyses and calculations. Yesterday and earlier today the committee had discussed a straw proposal on uses. She then turned the microphones over to them.

Michael Shapiro: He noted that this was his third meeting with the group and said that it was a pleasure to attend when so much progress had been made. He said that he and many of his colleagues at EPA very much appreciated the work this committee was doing and the time and quality of work spent to develop recommendations for the agency. He said EPA recognized that this committee had an ambitious task and that there were some challenges coming into the process.

He said the process had met his goals for progress and work products completed. He recognized that there were still unresolved issues. He said that EPA was committed to continuing to work through those with the committee. He said that the Office of Water was committed to implementing recommendations coming out of the federal advisory committee. It supported this effort and hoped to see it through to a tremendous set of issues and recommendations. He said that the options that had been chosen for the pilot study would allow the work to go forward and said he looked forward to the results.

He said that Mary Smith had re-emphasized EPA was here representing the Office of Water, and more specifically the Clean Water Act side of the Office, but that did not mean other offices were not engaged. He said he had worked very hard to involve all the offices across the agency. He said that while there was not agreement across the whole agency, he would continue to work with the rest of the agency to understand where it is heading while working towards implementing the work of the federal advisory committee process. He said he supported this 100%. He said that his boss, Ben Grumbles, had been briefed, was aware of progress, and believed that it was the right way forward on the issues. He said he wanted to hear what members thought the remaining issues were and where things were headed.

Ephraim King: He acknowledged the amazing amount of energy and effort put into the federal advisory committee to-date. He said he wanted to encourage the group to find the issues that it could get close to resolution on, those consensus points. With respect to uses, he said the committee was a wonderful opportunity for this group to find some middle ground. If the committee succeeded, he said, it would set the future in terms of Clean Water Act method decision-making for the next 20-30 years, and that EPA supports and encourages the group to provide long-term recommendations from the process. He said that EPA would do the best it could with divergent opinions, but hoped that the group could find common ground.

Ms. Shorett then called on each caucus.

Public Utilities

Jim Pletl said that he was very much encouraged by the progress the committee had made. Many of the meetings had been technical in nature, which he thought the committee could address. The policy issues were the tough ones; the ones the committee had “danced around” in the past few meetings.

He said that it seemed the committee had reached consensus on having another meeting between now and May to delve more deeply into those uses issues. The other issue

related to how much time the group was putting into this to develop a product that would be worthy of the resources that had gone into it. He said the committee believed it would be necessary to extend the charter for the group to polish up the final recommendations and accurately reflect everything the group had worked on. Without that, the committee would be rushing at the end and that would be reflected in the product.

He said that at times in the process it had felt like the committee had been spinning its wheels, but after yesterday and today, he said he was much more encouraged that the group could find the middle ground.

Environmental Community

Richard Rediske agreed that the group had had some very difficult but useful policy discussions. He said the committee was moving in the direction of looking at permitting in a different paradigm as it defines L_C and L_Q with greater scrutiny and clarification. There was a need for that, but also a need to separate that from certifying and sending people to jail. He said the group was trying to make what it was developing for L_C and L_Q into something workable. As far as his caucus was concerned, it wanted the information to lead to good, scientifically-sound decisions.

Barry Sulkin said that he had followed the TMDL federal advisory committee too closely and did not want to fall into a trap that happened there where they were working too hard toward consensus. He said the group should not feel bad about not agreeing with something and just move on.

Michael Murray said he realized that the group was working on some real policy issues, but that they are linked to very technical issues. One of the reasons the group was here was the lack of consensus in the scientific community about what procedures are used even to determine these estimates. So, the committee is dealing with uncertainties in both realms, which might be different from other federal advisory committees. He said that if the committee could come develop some consensus recommendations that would be good.

Question (Michael Shapiro): Do you have a feeling about the extension?

Response (Barry Sulkin): We would like it to end, but we will stick with it.

Environmental Labs

Richard Burrows said that the really important thing for labs was that they have reliable procedures for estimating detection and quantitation limits so that there are reliable ways for estimating and reporting values. He said his caucus was encouraged that the process was going forward. He said that the policy issues the committee was engaged in were really academic for labs. Labs want to report good numbers; what everybody does with them after that is up to them. Labs have been trying to stay on the periphery of these discussions to avoid muddying the waters.

He said he thought an extension of the federal advisory committee was going to be necessary because of all the data from the pilot study that is expected around about the

start of the year. Based on the analysis of that data, he expected the group would likely want to modify the procedures and they would need time to negotiate those changes before the process is closed.

Nan Thomey said that it was very encouraging for her as a scientist to have it acknowledged that all data are not of the same quality. Therefore, there needed to be some discussion of what decision levels the quality of data support, and when and how data should be used based upon the known accuracy of the data. Resolving this would help the lab community do a better job.

States

Tom Mugan said that the states were interested in a consistent approach that could be applied all over the country. As states had found out through outreach and survey efforts, it is difficult to get everyone on the same page. It is difficult to get them to think of a different paradigm. The states have gone various directions out of necessity. He said that the States caucus was in the position of trying to represent all of the states, or as many as possible. That has caused some difficulty dealing with some of these issues, especially uses. Maybe at some point, the group will say we cannot come up with agreement and we will leave it up to the wisdom of EPA to come up with a direction. He said he hopes it does not come to that. He is optimistic the committee can come to agreement.

Dave Akers said that the States caucus had some frank talk about how it needed to be representing the state caucuses and also moving the ball forward. He said the caucus was concerned about getting all the states to participate, but that, ultimately, people would engage or not and the caucus just needed to act. He said that he wants to provide continued encouragement to the Technical Work Group for the huge effort they had put forth. Because of their hard work, a pilot study was moving forward.

Tom Mugan said that it would be a good thing to at least have an option of extending the charter. While caucus members were here, voting as a caucus, to make this process work nationally meant that the caucus needed to engage the various states. The path forward for technical issues was relatively straight. For the policy issues, the path forward was not as clear. If the committee were to truncate this effort prematurely, the caucus would run the risk of not bringing other states along not finishing the group's work.

Industry

Larry LaFleur began by noting that the group had gotten along well enough to disagree, but the group also listened to one another very well. He said it had made a lot of progress in terms of how to make decisions together. There were still some important issues to address. He said that industry was very interested in MQOs in terms of the Clean Water Act and fully supported a meeting between now and March 2007 to work through those issues. Industry also recognized that EPA was generating an enormous amount of data that would be very valuable. The more time the group had to look at the data, the better the final work product would be. If the process were to end according to the current timeline, he said, the group would have something, but not as much as it could have with

a little more time. He said it would be tragic not to finish the committee's work, bring it to closure, and not open new doors.

John Phillips said that he supported those and other comments around the table. He said the group was trying to take everyone's opinions into account. He noted that the states have a lot of divergent opinions, but the group is hopefully coming up with a policy issue that EPA will promulgate. He said that industry sees it as a baseline and the states can choose to be more stringent. He said the pilot study would help the committee come up with procedures for detection and quantitation. Because of the limited time, it would not look at long-term variability which would require some follow-up work, likely outside the federal advisory committee process. He said he hoped the committee would be able to make some recommendations on that.

Michael Shapiro: He noted that he and Ephraim King had a chance to talk to Mary Smith before the meeting and supported an extension through 2007. As long as it leads to complete buy-in, he said it would be resources well-spent.

Ephraim King agreed that it made sense to have some additional time because of the pilot study. He encouraged the committee to resolve the use issues. If the committee found it could not move forward on those, he encouraged it to identify the main sticking points and articulate them to the agency. He said that the committee should think of itself as the most important group that has met on analytical methods in the last 10-20 years. He said that EPA respected the fact that there were some things that could not be rushed. On other things that were not data-driven, he encouraged the committee to wrestle as hard as possible and move on.

Tim Fitzpatrick noted that from the lab point of view, the 40 CFR approach for methods was generally adopted by those programs. He said that Mary Smith's comment about the fact that not all EPA programs were on the same page had led him to wonder whether there would be one set of tools for addressing Clean Water Act issues but another set of tools for RCRA, etc. He asked for Mr. Shapiro's thoughts on bringing the rest of the agency along.

Michael Shapiro replied that in the meetings he had been in, he had asked how things were being done now. The answers varied. He said that it was his impression that programs were all over the map. At a minimum, he thought the drinking water program would take a hard look at anything that came out of this process. The significance of this effort was really important, he said, and the weight of these recommendations across the agency would be profound. The burden of proof would be on the other programs to explain why they were not adopting these new approaches. This would have a significant impact on how the agency would look at this issue. He said there was a whole movement in how the agency was collecting and presenting its scientific information. There were some real differences of opinion, and he said he could not guarantee those results, but he said he believed there would be a tectonic shift in how the agency thought this through.

Richard Burrows noted that, on the ground, it was interesting to note that all the programs were doing the exact same thing. He said it was exceedingly important to labs that the final procedures replace the text of the procedures in 40CRF136, appendix B. If this were not to happen, he said he would consider this to be a failed effort.

John Phillips said that he thought the program offices varied on enforcement, but when it came to detection, the program offices used those promulgated methods. The same was true with quantitation, which was not now clearly defined. He said that we would benefit from putting these procedures in regulation.

Larry LaFleur asked if there were a way to get a summary of what those obstacles in the agency appeared to be.

Michael Shapiro said that EPA could pull together a summary of issues at some point, but not immediately. The summary of issues was broader on the policy side, not on the technical side.

Ephraim King: encouraged the group not to go down that path. He said that the committee needed to develop the most compelling arguments for why the new procedures were the way to go. That would be the way to move the other programs forward. His suggestion was to keep going down the path the committee was going. The issues the committee was talking about would unfold in a pretty predictable way.

Discussion of the Final Report Outline

Alice Shorett referred the committee to “Proposed Final Report Outline,” document #11. (See [http://epa.gov/waterscience/methods/det/faca/mtg20060713./](http://epa.gov/waterscience/methods/det/faca/mtg20060713/)) She asked for comments on the draft report outline or suggestions for a process to complete the report. The committee had a long discussion about the process for developing ideas and the content of the report, and the timeline for drafting and completing it.

With respect to the process for developing the report, members felt that the Policy Work Group could develop the outline but that the group was too large to draft a final report. Instead, a subgroup, with a representative from each caucus should draft the final report. A goal would be to have a first draft ready for review by the December meeting.

With respect to the content of the report, the committee suggested that it should:

- Be clear about the intended audience, specifically, the EPA Administrator and the constituencies represented at the table.
- Be clearly written to minimize the number of questions as the recommendations moved into rulemaking.
- Identify the purpose of the committee in an appendix.
- Have an executive summary.
- Include the calculations/analyses information and results of the pilot study.

On the latter point, Richard Reding said that Michael Shapiro had said that he would want to make available to the public the large amount of information generated in the pilot study.

Public Comment

No public comments were made during Day 2 of the meeting.

Wrap-up, Assignments and Agenda Topics for the Next Committee Meeting

Policy Work Group Assignments

- Uses refinement and new proposal
- Other uses and proposals for FACDQ
- MQOs
- Matrix effects
- Final report outline and contents
- Implementation
- Procedures – 1 or more? (based on uses)

Technical Work Group Assignments

- Monitor pilot
- Revise the calculations and data analysis document
- Normalize the matrix
- Consider Procedures – new, modified and existing
- Modify features of a pilot to more comprehensively include what will not be accomplished in the pilot
- Consider intermittent method blank contamination and make any recommendations
- Consider ongoing verification and make any recommendations
- Clarify definitions (L_C , L_D , L_Q , MDL, MRL) and glossary
- Address matrix effects

Agenda Topics for December

- Uses: new proposals and other uses
- MQOs
- Matrix effects
- Final report
- Definitions
- Pilot Study status update

Alice Shorett thanked committee members for their time and reminded them that the next meeting was scheduled for December 6-8, 2006 in Arlington, VA. Richard Reding also thanked members for their time and adjourned the meeting at 2:50 p.m.

MEETING ATTENDANCE

Committee Member	Affiliation
<i>Environmental Community</i>	
Michael Murray	National Wildlife Federation
Richard Rediske	Grand Valley State University
Barry Sulkin	Environmental Consultant
<i>Environmental Laboratories</i>	
Steve Bonde	Battelle
Richard Burrows	Severn Trent Labs
Cary Jackson	HACH Company
Nan Thomey	Environmental Chemistry, Inc
<i>Industries</i>	
Roger Claff	American Petroleum Institute
Larry LaFleur	National Council for Air and Stream Improvement
John Phillips	Alliance of Auto Manufacturers (Ford Motor Co.)
David Piller	Exelon Corp.
<i>States</i>	
Dave Akers	Colorado Dept of Public Health and Environment
Bob Avery	Michigan Dept of Environmental Quality
Timothy Fitzpatrick	Florida Dept of Environmental Protection
Thomas Mugan	Wisconsin Dept of Natural Resources
<i>Public Utilities</i>	
Zonetta English	Louisville/Jefferson Co Metropolitan Sewer District
Chris Hornback	National Association of Clean Water Agencies
David Kimbrough	Castaic Lake Water Agency
Jim Pletl	Hampton Roads Sanitation District
<i>EPA</i>	
Mary Smith	US Environmental Protection Agency
Designated Federal Officer	
Richard Reding	US Environmental Protection Agency
Invited Speakers/Participants	
Ephraim King	US Environmental Protection Agency
Michael Shapiro	
Kenneth Miller	CSC, Inc.
Facilitators	
Alice Shorett	Triangle Associates, Inc.
Bob Wheeler	
Derek Van Marter	
Observers	
Meghan Hessenauer	US Environmental Protection Agency
Joanne Dea	

Brian Englert
Marion Kelly
Nicole Shao
Brad Venner
Lemuel Walker
Steve Wendelken
Richard Witt
Marcus Zobrist
Jim Christman
Colin Finan
Minda Lazarov

Hunton & Williams
Inside EPA
Public

DISTRIBUTED MATERIALS

Committee's Packet of Materials

Agenda (July 13-14, 2006)

Draft Meeting #4 Summary (March 29-30, 2006)

Committee Process Chart – Status Report

Committee Timeline

Revised draft: What do we need a procedure to do?

Proposed Pilot Study Design

Features of the Pilot Study and Desired Features of a Post-FACDQ Pilot Study

Technical Work Group Products, Approvals, Questions, Potential Assignments

Proposed Limit Calculations/Analyses to be used in Pilot Study

Straw Proposal

Proposed Final Report Outline

Revised Glossary of Terms

Distributed at Meeting

Presentation Handout from State Caucus

Worksheet – Caucus Straw Poll on Uses

Summary of Pilot Calculations and Data Analysis Priorities

Revised Proposal on Uses When WQBEL is below or Near L_Q