

**SUMMARY OF THE
TNI CHEMISTRY EXPERT COMMITTEE MEETING**

NOVEMBER 2, 2012

The Committee held a conference call on Friday, November 2, 2012, at 2:00 pm EDT.

1 – Roll call

Richard Burrows, Test America (Lab)	Present
Francoise Chauvin, NYC DEP (Lab)	Present
Brooke Connor, USGS (Other)	Present
Dan Dickinson, NYSDOH (Accreditation Body)	Present
Tim Fitzpatrick, Florida DEP (Lab)	Present
Nancy Grams, Advanced Earth Technologists, Inc. (Other)	Absent
Anand Mudambi, USEPA (Other)	Absent
John Phillips, Ford Motor Co., (Other)	Present
Lee Wolf, Columbia Analytical Services (Lab)	Present
Ken Jackson, Program Administrator	Present

Associate Committee Member present: Arthur Denny

2 – Minutes from October 19

It was moved by Tim and seconded by John to approve the minutes as presented. All were in favor except Francoise who abstained.

3 – Procedure for the Determination of MDL

It had been decided previously to revise 40 CFR Part 136 Appendix B with the minimum number of edits possible, in order to make it amenable for adoption by EPA. Nancy, through recent e-mail discussions, had suggested a more thorough scientifically sound approach to MDL. Richard pointed out, however, that a new process (even the one developed by the 2007 Federal Advisory Committee on Detection and Quantitation) would not be acceptable to EPA. He said there is therefore a trade-off. It will not be possible to do the minimum number of edits and get a complete scientific rigorous approach, but it will be possible to get a much better method than the current one. Tim suggested a two-pronged approach, by first making minimal MDL changes and later working on a more comprehensive procedure as was presented in the Federal Advisory Committee report. He said perhaps EPA would then adopt the more rigorous method in the future. John added that a disclaimer might be added to the version with minimum edits, stating that TNI knows it is deficient in some areas, and perhaps that will push EPA in the future. Richard said it might say that it is not recommended to use results between the quantitation limit and the MDL for determining compliance. Dan suggested putting that language in the scope section of the document. Richard made it clear that this

document will not become part of the TNI standard, but the standard will be amended to allow its use. John said in future the committee might provide guidelines on how to go further for a more accurate measurement. Richard added it could say if you have enough data points a non-parametric approach might be used. Lee asked whether EPA would adopt quantitative language or if that should be restricted to the TNI standard. Richard suggested asking EPA if Minimum Level (ML) should be incorporated in to the revision. Francoise suggested first putting on paper what the Committee thinks is important, and then deciding what should go into the MDL document (e.g., whether to include ML) and what should go into the TNI standard. Richard said, for now, they would keep working on the MDL without including ML, since ML would not be part of a revised Appendix B. John said, for censored methods, a level at which data are quantitated may be needed to come up with a detection estimate, because blanks are not being measured.

The previously edited MDL document was now revisited.

Definition. Under the definition of MDL, it was agreed to delete “containing the analyte” from the end of the sentence, because uncensored methods do not contain the analyte. A definition of method blank needs to be added. Other definitions can be listed at the end of the document.

Scope and Application. John agreed to add language in the scope to limit the use.

It was discussed that the MDL will not only apply to drinking water and wastewater, but will include other aqueous matrices and perhaps fish tissue and others. Therefore, the first sentence was shortened to “This procedure is designed for applicability to a wide variety of sample types.”

The sentence “The MDL obtained by this procedure is used to judge the significance of a single measurement of a future sample.” was considered redundant and was thus deleted.

Regarding the next sentence, there was discussion of the scope of applicability, and whether applications need to be stated.

The sentence “To accomplish this, the procedure was made device- or instrument-independent.” Was considered misleading; e.g., it does not apply to pH measurement. John volunteered to work on this sentence.

A new last paragraph was added: “The MDL is performed when the method is initiated, and then verification checks are performed approximately every quarter. The data from the verification check spikes and method blanks are assessed once per year to ensure that the MDL estimate is still reasonable.” However, it was noted that this might be changed later. Francoise suggested it might be in the wrong location anyway, since it is not about scope and application.

Procedure. In 1 a) it was noted that “one to two times the standard deviation” is incorrect, and it was changed to “three times the standard deviation”. The next sentence was seen to be a circular argument and was deleted. The sentence “The interferent concentration is presupposed...” was deleted.

4 – Next Steps

In the next meeting discussion will continue with Procedure section 2.

5 – Adjournment

The meeting was adjourned at 3:30 p. The next conference call will be on November 16, 2012 at 2:00 pm EST.

ADD ACTION ITEMS**LIST OF ACTION ITEMS TO BE COMPLETED**

Item No.	Date Proposed	Action	Assigned to:	To be Completed by:
1	1/31/12	Add a definition of Reporting Limit or Quantitation limit to the standard.	Committee	Defer to quantitation sections
2	1/31/12	Continue to consider the concept of routine low-level QC in the standard.	Committee	Ongoing
3	1/31/12	Review Sections 1.5 and 1.6 of the 2009 standard's chemistry module to determine if current calibration requirements are adequate.	Committee	Not determined
4	1/31/12	Spacing of calibration standards will be considered for the guidance document.	Committee	Ongoing
5	2/17/12	Draft language for items in the calibration standard	Richard (Items 1 and 2) Anand (Item 3) Nancy (Item 5) Anand and Francoise (Item 6) Tim (Item 11)	Complete
6	2/17/12	Review Volume 1 Module 4 of the 2009 standard to identify any inconsistencies with the new language	All Committee Members	Complete
7	3/2/12	Add 1-2 sentences under the header 1.7.1 to explain that method is also included in calibration.	John	Complete
8	3/2/12	Clean up the parts of Section 1.7.1 referring to initial calibration and the parts referring to continuing calibration.	Committee	Complete
9	3/2/12	Add criteria for rejection of calibration standards to the guidance document.	Committee	Not determined
10	3/2/12	Add to the guidance	Committee	Complete

Item No.	Date Proposed	Action	Assigned to:	To be Completed by:
		document discussion of analysts using the most recent calibration rather than choosing which of 2 or more curves to use.		(done in the standard)
11	3/2/12	Include a paragraph in the standard that addresses a single-point calibration for P/A testing.	Committee	Complete
12	3/30/12	Check the language does not contradict the existing standard regarding meeting method requirements vs. standard requirements for calibration.	Committee	Not determined
13	3/30/12	Sections 1.7.1.1 j and k will be modified further as a result of the March 30 discussions.	Anand and Francoise	Complete
14	3/30/12	Have the guidance document consider orders of magnitude in deciding the minimum number of standards, and keep a placeholder in Section 1.7.1 to refer to it.	Committee	Not determined
15	3/30/12	Add a definition for threshold testing	Committee	Not determined
16	3/30/12	Richard's, John's and Anand's March 30 changes will be incorporated into a single document.	Ken	Complete
17	5/4/12	Add to the guidance document that Section 1.7.1.1 (g) requirements should also be applicable for average response, when you evaluate with the RSD, and that is numerically the same	Committee	Not determined

Item No.	Date Proposed	Action	Assigned to:	To be Completed by:
		value as the RSE.		
18	5/4/12	Discuss in the guidance document how to check quarterly (ref. Section 1.7.1.1 (j) (i)).	Committee	Not determined
19	6/1/12	Bullet points will be drafted for a proposed PowerPoint presentation	Brooke, Richard, Tim, Francoise, Anand	Complete
20	6/1/12	Bullet points will be drafted for a slide that will describe the items to be discussed in the guidance document.	John	Complete
21	7/20/12	Explain in the guidance document the difference between MDL and the true detection limit.	Committee	Not determined
22	10/5/12	A note will be appended to the draft language of Section 1.7.1.1 n until the CCV language has been written.	Anand	Complete
23	11/2/12	For the MDL document, language will be drafted in the scope to limit the use.	John	11/19/12
24	11/2/12	In the Scope and Application section of the edited MDL document, the sentence "To accomplish this, the procedure was made device- or instrument-independent." Will be re-worked.	John	11/19/12