

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

**JANUARY 26, 2016**

The Committee met at the Forum on Environmental Accreditation, Tulsa OK, on Tuesday, January 26, 2016, at 8:00 am CST. Chair Richard Burrows led the meeting.

**1 – Roll call**

Richard Burrows, Test America (Lab)	Present
Francoise Chauvin, NYC DEP (Lab)	Absent
Brooke Connor (Other)	Absent
Gale Warren, NYSDOH (Accreditation Body)	Absent
Colin Wright, Florida DEP (Lab)	Present
Anand Mudambi, USEPA (Other)	Absent
John Phillips, Ford Motor Co. (Other)	Present
Scott Siders, PDC Labs (Lab)	Present
Valerie Slaven, Teklab (Lab)	Present
Gary Ward, OR DPH (Accreditation Body)	Present
Ken Jackson, Program Administrator	Present

**2 – Introduction**

Richard welcomed the participants and the Committee Members introduced themselves. Richard outlined the agenda, saying the morning session would consist of training presentations on the revised standards for Calibration (V1M4, Sections 1.7.1 and 1.7.2) and Detection/Quantitation (V1M4, Section 1.5.2). He stressed these were early drafts, prepared by individual Committee Members. The purpose of the presentations was to obtain feedback from those present so the slides could be further improved for future training. The afternoon session would be used for discussion of future development of other sections in V1M4.

**3 – PowerPoint Presentations on V1M4**

**Section 1.7.1.1 Minimum Number of Standards**

Colin presented this material, stressing that new requirements must be practical, cost effective, and auditable. Included was a table listing the minimum number of standards for each of the calibration curve types: threshold testing; average response; linear fit; and quadratic fit. Ed Askew was concerned that point-to-point calibration was not included, so use of pH meters would not comply. Richard explained the preamble to the section states it is applicable to regression types only. Ed said Standard Methods require linear regression for pH, and Colin responded that the standard requires the method to be followed if it is more stringent. An earlier draft of the standard had included degrees of freedom in this table, and Richard suggested they might put that back just for training, to show the statistical basis for calibration.

**Section 1.7.1.1 Removal and Replacement of Calibration Standards**

This was presented by Scott. He explained the 2009 standard was silent on this, but laboratories required a procedure for dropping points. It was now included in the standard for consistency. Ed Askew asked if dropping the low standard impacted the MDL. Scott said it did not, but it could impact the regulatory reporting limit. Richard stressed there is nothing here that would be non-compliant with the 2009 standard, so a laboratory could implement this even if its State had not yet adopted the new standard.

#### **Section 1.7.1.1 Relative Error**

Richard made this presentation. He said Relative Error is now required by the standard. He highlighted the gross errors and inadequacy of using Correlation Coefficient compared with Relative Error or Relative Standard Error. In particular, serious errors at the low end of the curve may not be seen by Correlation Coefficient. The slides included linear weighting of curves, and Scott suggested explaining what that means. There was agreement on this from audience participants. Ed Askew asked, if the MDL was determined without weighting, and then weighting was used, would it be necessary to do the MDL again with weighting. Richard said that variability would be captured when the MDL was determined over time (4 quarters).

#### **Section 1.7.1.1 Single Point Calibration and Linear Range methods**

This was prepared by Françoise and presented by Richard. There were no questions or comments.

#### **Section 1.7.1.1 Continuing Calibration Acceptance Criteria**

This was presented by Valerie. There were no questions or comments.

#### **Section 1.5.2 Working with the New MDL and LOQ**

Richard presented this material and he reported EPA was finalizing the Method Update Rule, and it should become effective some time in 2016. The TNI MDL was designed to work effectively with the TNI LOQ. He said if there are significant changes to the revised EPA MDL, the TNI standard can be quickly updated if it is not contentious. In response to a question if there were any recommendations on how many spikes to run, Richard said at least 7 over the course of the year. Needed would be 1 per instrument per quarter, or this might be 2 depending on EPA. Sharon Mertens asked if a laboratory uses MDL<sub>B</sub>, could it stop analyzing spikes? Richard said there was no provision for that. Scott asked what steps a laboratory should take now to be consistent with the new MDL when it becomes effective. In response, Richard outlined recommendations to have all the data needed by the time the new MDL becomes effective. He said the laboratory could go back as far as 2 years to get the data. Richard added the laboratory would also have the data verify the Drinking water MRL if they have the TNI LOQ.

There being no further comments the meeting was adjourned from 12:00 – 1:00 pm

#### **4 – New Standard Development**

In the afternoon session Richard reported the committee was considering the demonstration of Capability section of V1M4, and he gave an overview of their thoughts to date. There was a discussion

on the depth required in the standard; i.e., if there would be too much compared with the 2009 standard. He asked if there should just be minimum requirements. John said guidance would also be desirable to show how all the different parts of the standard fit together. There followed a discussion of the need/appropriateness of the committee developing guidance.

Audience members were asked to suggest other areas the committee should consider. Paul Junio said matrix spikes and matrix spike duplicates should not be batch specific. A discussion followed on uncertainty measurement. Commenters generally agreed that providing uncertainty of results is technically sound, but may be difficult to implement in the regulatory arena. It was suggested an acceptable way to express uncertainty might be through the correct reporting of results with significant figures.

## **5 – Committee Charter**

The proposed revised charter for 2016 was presented and there were no comments. It was moved by Scott and seconded by Valerie to accept the charter. All Committee Members were in favor.

## **6 – Adjournment**

There being no other business the meeting was adjourned at 2:45 pm CST.