

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

**OCTOBER 3, 2014**

The Committee held a conference call on Friday, October 3, 2014, at 2:00 pm EDT. Chair Richard Burrows led the meeting.

**1 – Roll call**

Richard Burrows, Test America (Lab)	Present
Francoise Chauvin, NYC DEP (Lab)	Present
Brooke Connor (Other)	Present
Dan Dickinson, NYSDOH (Accreditation Body)	Present
Mandi Edwards, Envirochem (Lab)	Present
Tim Fitzpatrick, Florida DEP (Lab)	Present
JD Gentry, ESC (Lab)	Present
Nancy Grams, Advanced Earth Technologists, Inc. (Other)	Present
Anand Mudambi, USEPA (Other)	Present
John Phillips, Ford Motor Co., (Other)	Present
Scott Siders, IL DEP (AB)	Absent
Gary Ward, OR DPH (AB)	Present
Ken Jackson, Program Administrator	Present

Associate Committee members present: Lynn Boysen; Dixie Marlin; Diana Shannon

**2 – Previous Minutes**

Francoise pointed out an error in the minutes of September 19, 2014, and suggested changing the start of the first sentence under “Meeting with the Laboratory Accreditation System Executive Committee” from “The previous day..” to “Earlier the same day..”. With this change in place it was moved by Francoise and seconded by John to approve the minutes. All were in favor except Anand and Brooke who abstained. Therefore, the motion passed.

**3 – Aaren Alger’s Comments on the Calibration Interim Standard**

The committee worked through Aaren’s comments, together with notes Ken had taken during the recent conference call (9/17/14) with Aaren, Richard, JD, Francoise and Gary in attendance.

**1.7.1** The Committee confirmed it had agreed to remove the second paragraph and the term “method calibration”. The committee did not agree to put “Instrument” back in the text.

**1.7.1.1.e** Degrees of freedom was included in the table to cover other forms of calibration not listed. However, the Committee agreed to remove degrees of freedom from the table, and had suggested adding a note regarding degrees of freedom requirements for calibration types not listed in the table. Aaren said it should not be a note but a separate section of the standard, and the Committee members agreed. The table was also modified to increase the minimum number of standards by each method, and this brought it more in line with most methods that specify the number of standards. The text was then modified to specify three degrees of freedom for other types of curve. The Committee agreed to also add definitions for degrees of freedom and threshold testing. John said a definition was available for degrees of freedom but not for threshold testing, and he would work on the latter.

**1.7.1.1.i** The committee agreed to remove the sentence “the criteria used shall be appropriate to the calibration technique employed”, because the language really did not provide any benefit.

**1.7.1.1.j** The committee had already agreed to break the text down into bullet points for clarification. Francoise volunteered to work on this. The other comment concerned having a limit on the RSE, but it had been agreed during the 9/17/2014 call that no criterion would be added. The same limit is not appropriate for all methods and uses. Just as all methods do not have the same correlation coefficient criteria, or RSD criteria, they cannot all have the same relative error or RSE criteria.

**1.7.1.1.k** This concerned the suggestion to include a requirement to add an LOQ verification at the end of the run to verify that the calibration didn't drift or lose sensitivity. It had been agreed during the 9/17/2014 call that this QC should be considered for a future revision of the standard.

**1.7.2.d** Aaren had suggested the committee re-word this section to read, “Calibration verification shall be performed at the beginning and end of each analytical batch, and after the analysis of 10 samples, unless a different frequency is specified by the method.” Since this was a new requirement, it had been agreed to table the issue until the next revision of the standard.

**General Comment 1** It had been agreed during the 9/17/14 call that the committee would not reconsider moving the standard to the next level.

**General Comment 2** With particular reference to Section 1.7.1, Aaren had commented the statement “Calibration requirements for analytical support equipment are specified in Module 2.” is not a standard requirement. She suggested such statements should be included as notes, but she added this would not cause her to vote against the standard. However, TNI had decided notes should not be used in the standard, and Gary added that some ABs did not want notes. After discussion, the committee decided not to make this change.

**General Comment 3** Aaren believed it was inappropriate to include statements regarding when the sample results may or may not be reported, saying that was for the client, regulatory agency, or other entity to determine. With particular reference to the EPA Drinking Water requirements, Richard emphasized no objection had been raised on this during the vote on the VDS. This issue had also been raised by LASEC as an important issue that might cause some ABs to reject the standard. Following a protracted discussion, the committee decided to table the item for consideration during the next revision. (NOTE: this was revisited following further discussions with the ABs on October 15, 2014).

**General Comment 4** This concerned the statement in Section 1.7.1 “for methods that use calibration models such as average response factor or linear or quadratic.” Aaren thought the reader would automatically assume that the standard only applies to these types of calibration. Richard had since changed the language to address the comment.

**General Comment 5** Aaren had provided a suggested re-wording of the language on the removal and replacement of calibration points. Tim thought her statement “The laboratory may choose to remove standard concentrations from the interior of the calibration curve when the instrument response demonstrates that the standard was not properly introduced to the instrument.” was overly restrictive since there may be other legitimate reasons. Richard suggested adding “..or an incorrect standard was analyzed”. It was agreed to adopt Aaren’s language.

**General Comment 6** Aaren disliked the following statement (Section 1.7.1.1.e, footnote b): *Fewer standards and degrees of freedom may be used only if equipment firmware or software cannot accommodate the specified number of standards. Documentation detailing that limitation must be maintained by the laboratory.* She said if a piece of equipment cannot meet the minimum standard, then the results need to be qualified. Richard suggested requiring a narrative explaining non-compliance with the standard. However, Tim said it would mostly apply to wastewater laboratories that have equipment with calibration limitations. They are mostly captive laboratories that do not have a narrative and qualified results might cause consternation. The committee decided the note should remain and would provide the response: *This statement is included because of concerns that monitoring equipment with hardware calibrations used by wastewater treatment plants and other laboratories would otherwise be non-compliant with the standard.*

**General Comment 7** Section 1.7.1.1.h states *sample results shall be quantitated from the initial calibration and may not be quantitated from any continuing calibration verification unless otherwise required by regulation, method, or program.* It was commented the standard should bring a laboratory to a higher level, not allow the laboratory to meet a reduced level of calibration because a method, regulation, or program may allow it. However, this was original language in the standard, and no comment had been received on the VDS. Therefore, the committee decided to make no change.

**General Comment 8** As requested the word “additionally” would be removed from Section 1.7.1.1.j.

**General Comment 9** Aaren suggested re-wording Section 1.7.1.1.k, and this had been done.

**General Comment 10** The committee agreed to re-word Section 1.7.1.1.l in response to the comment that the section was an allowance and not a standard.

**General Comment 11** Aaren suggested Section 1.7.1.1.m was not the appropriate place for the stated requirement, saying it belonged under “Calibration Verification: and not “Initial Calibration Verification”. The committee disagreed because the check is required only on initial calibration.

**General Comment 12** It was suggested changing the header of Section 1.7.2 to “Calibration Verification” to be able to describe both initial and continuing calibration verification. The Committee chose to not change the placement of the calibration verification requirements.

**General Comment 13** This concerned a request for a change in Section 1.7.2.c, but the committee was unable to make such a change because it had not been raised at the VDS stage. Therefore, it would be tabled until the next revision of the standard.

**General Comment 14** The committee agreed to modify Section 1.7.2.f. in response to Aaren's concern that some of the language was subjective and therefore not enforceable.

#### **4 – Next Steps**

Time did not permit consideration of the LASEC comments, so the committee decided to have another call in one week considering the urgency of the need to respond.

#### **5 – Adjournment**

The meeting was adjourned at 3:30 pm EDT, with the next meeting to be scheduled on October 10 at 2:00 pm.