

**SUMMARY OF THE
TNI CHEMISTRY EXPERT COMMITTEE MEETING
OCTOBER 3, 2018**

The Committee held a conference call on Wednesday, October 3, 2018, at 2:00 pm EST. Chair Valerie Slaven led the meeting.

1 – Roll call

Jay Armstrong, VA DGS (AB)	Present
Paula Blaze, NJ DEP (AB)	Absent
Eric Davis, Austin Water Utility (Lab)	Present
Deb Gaynor, Independent Consultant (Other)	Absent
Shawn Kassner, Neptune (Other)	Present
Charles Neslund, Eurofins (Lab)	Absent
Max Patterson, UT DOH (AB)	Present
Valerie Slaven, Consulting Services (Other)	Present
Colin Wright, Florida DEP (Lab)	Present
Ken Jackson, Program Administrator	Present

Associate Committee Members present: Chaney Arend; Nicole Cairns; Arthur Denny; Anand Mudambi; Paul Junio;

2 – Approval of Previous Minutes

It was moved by Shawn and seconded by Max to approve the minutes of August 6, 2018. All were in favor.

3 – Standard Interpretation Request (SIR) 324

This had been discussed during the July 11, 2018 conference call when Deb volunteered to present arguments for and against requiring a method blank and LCS for filtered samples, and Val would draft ramifications.

Deb's opinion was that a responsible laboratory would filter a method blank and LCS using certified clean, non-reactive filters. This requirement should be stipulated by NEFAP, and should also require both that the certificate for the filter be included with the field documentation, and that the laboratory should receive a copy. If multiple certified filters are commercially available, the laboratory may wish to test these within their facility for consistent performance in their hands.

Val and Max both said the answer depended on whether the laboratory had filtration as part of its analytical procedure. The dilemma was the standard requires the laboratory to filter samples, but does not require it if the sample was filtered in the field. However, if filtration is in the laboratory's procedural SOP, then it clearly must do so. Val said she would write a response stating this, and would circulate it to the committee for e-mail vote.

4 – Comments on Guidance Documents

Comments from LASEC, the NELAP AC, and the Policy Committee had been received. Many had already been resolved by Jerry Parr, so at this meeting the committee would limit its focus to just a few of the comments. An on-going question was whether to remove the FAQs from this document and publish them separately. On discussion the committee agreed to remove them.

In the “**Consolidated Comments**” document, the following was considered:

“On Page 3 in the paragraph starting with "Replacement means removing a standard...", please verify that the phrase "before any samples are analyzed", in sentence #2, is not an addition to the language in the Standard. That language is not part of the standard quoted above this paragraph, from 1.7.1.1.e.v. If stated elsewhere, or if implied in the standard's language, this should be a point or a paragraph in that section of the guidance document. Stated here, *it appears to be a requirement made by the guidance document but not in the Standard.*”

The committee agreed this is a requirement in the standard, but not in the cited section. The committee would add that section of the standard into the guidance document.

The document “**Calibration unresolved**” was considered next.

“Page 2, 3, 13: The standard at 1.7.1.1.e(ii) is very clear, providing two reasons a lab may remove/replace an interior calibration point: (1) standard not properly introduced or (2) an incorrect standard was analyzed. This guidance document, on Page 2, has introduced a criterion of "... that the difference is obvious to the naked eye" by quoting an 18-year old email (EHSG MICE, AZDHS Presentation April 2000) as an example of what "technically justifiable" means. As a result of this quotation, the examples and discussion in this guidance document (on Page 3 under "Technically Valid Reason" and in the example on Page 13) have gone notably beyond the original language of the standard which was clear with little room for "interpretation". With the language in this guidance discussion as the basis, any curve that doesn't look right to the naked eye has basis for defense as "technically justifiable" reason to discard/replace an interior point. *This appears to go beyond the original intent of the standard's specific language and is thus inappropriate for a guidance document.* Suggestions provided to address this apparently additional requirement follow:

- Page 2: Remove the paragraph that starts with "What is meant by ..."
- Page 3: Under section 2.6, strike the sentence and bullets starting with "As in Section 2.2..." Replace with "See Section 2.2 for examples."
- Page 13: Improve text between illustrations with narrative, naming a specific "gross technical error" (quoting from Page 2), such as those listed in the paragraph on Page 2 at the end of section 2.2. The text on Page 13 currently communicates that running a new standard that makes the curve appear visually better meets the intention of the standard. Specifically, a stronger example would have a specific, 'gross technical error' identified (not presumed), such as: "The analyst observed a leaking purge vessel."

Val agreed with this comment and favored removing that reference from the calibration guidance document. All agreed to do so, and to leave the rest as written after removing the reference.

“Section 1.7.1.1 p: This section confuses me. It references ICP as an example of an analysis that this procedure would apply. It appears that the section is indicating that a multiple point calibration that is linear throughout the range is required annually for ICP even though the daily calibration is a single point calibration that is supported by daily CRDL and semi-annual LDR determination. Is that the intent? “

The committee agreed that is the intent, and the section will remain as written.

“Section 2.5: This section indicates that the dropped point “may” be replaced. Is this for cases where the curve fails due to the dropped point? What if the curve passes even though a point has been dropped, is replacement of the dropped point required?”

The committee agreed with Jerry’s comment that the standard does say “may”, and the section would remain as written.

“Section 2.6: In the second bullet point, it mentions a standard that “has gone so bad” that the difference is obvious to the naked eye. The phrase “gone so bad” insinuates that the standard has degraded. This would not cover an improperly prepared standard or a bad purge.”

Again, the committee agreed with Jerry, who had commented that “gone so bad” is a quote from the standard.

Silky Labie had provided the following comment on Section 5.1:

“Ok – How do you determine the slope? What do you do with that value? What does it evaluate? I know, but I doubt some of the analysts know. If you require this information, provide some means of evaluating it. Nothing is in appendix 5. It would be helpful to outline measures that need to be done if this check is unacceptable. Analyze a higher concentration? Also, the reporting level will need to be adjusted.”

The committee felt this would be too big and complex a topic to add to the document.

It was agreed the remaining comments had been satisfactorily fixed by Jerry.

The final document under consideration was “**Unresolved LOD/LOQ**”.

“2.2 Use of CCV as a Low Level Spike

Q: Can the lab use the lowest calibration standard when used as low CCV in lieu of low level spiked samples (assuming no extraction is required) for data collection?

Q: Follow up question on low level CCV, since most samples are ND, is it practical to spike at the lowest standard (i.e., reporting limit)?

Answer: The CCV is typically at a mid point concentration and not at the low level needed for an MDL study. Running a CCV at such a low level would risk failure of the CCV criteria. However, as discussed in the 2016 TNI standard, a laboratory can analyze spikes at the Limit of Quantitation (LOQ), which can be set at the level of the low calibration standard and use these spikes both to calculate the MDL and verify the LOQ. This is not entirely true. 6010 and 6020 require a LL CCV so the question is valid and not truly answered. If we analyze a CCVLL or ICVLL per these metals methods would they count?”

It was agreed, as Jerry had stated, this is answered in the FAQ and is not needed here.

“2.5 Dual Column GC Data

Q: For methods using multiple columns (EPA 608.3), can spike data for both columns be used to calculate a single MDL, or should MDL be calculated for each column?

Answer: Method 608.3 has language that discusses which result to report. Further, many laboratories designate one column as a quantitative columns and the other to be used for qualitative confirmation. As with the analysis of real samples, these "rules" indicate only one quantitative value is to be reported. That value is the one that should be used for the MDL calculation.

I know the method addresses this and a person could read the method and still not find this answer helpful. Maybe state where in the method. And as a lab we have a primary and a confirmation column but sometimes we might have to report from the other column based on failing/passing QC, so shouldn't the MDL and verifications work on both columns? I guess as a lab you could choose to do that, but wouldn't it be best if all labs were consistent in how to deal with dual columns?"

Val said the standard does not address this and the committee agreed with Jerry's comment that this is a laboratory decision.

"Appendix 1 (after Section 3.5): Should we add to the Table the Student's t values when the Degrees of Freedom are 2, 3, 4, and 5, just in case?"

The committee agreed with Jerry that the standard requires at least 7 spikes, or 6 degrees of freedom, so this is not an issue.

Val said she would go through the remaining comments to see if anything needed to be changed. If she found anything substantive she would send it to the committee for consideration. Otherwise, Val would circulate the final guidance documents for committee review.

5 – Adjournment

The meeting was adjourned at 3:00 pm EDT. The next conference call would be November 7.