

**SUMMARY OF THE  
TNI CHEMISTRY EXPERT COMMITTEE MEETING  
NOVEMBER 1, 2017**

The Committee held a conference call on Wednesday, November 1 2017, at 2:00 pm EDT. Chair Valerie Slaven led the meeting.

**1 – Roll call**

Francoise Chauvin, NYC DEP (Lab)	Present
Eric Davis, Austin Water Utility (Lab)	Present
Deb Gaynor, Independent Consultant (Other)	Present
Shawn Kassner, Neptune (Other)	Present
Scott Siders, PDC Labs (Lab)	Absent
Valerie Slaven, Consulting Services (Other)	Present
Gale Warren, NYSDOH (Accreditation Body)	Absent
Colin Wright, Florida DEP (Lab)	Present
Ken Jackson, Program Administrator	Present

Associate Committee Members present: Travis Bartholomew; Jim Brownfield; Richard Burrows; Nicole Cairns; Mike Carpinona; Arthur Denny; Reed Jeffery; Ammie Martin; Nevin Neroux; Chuck Neslund; Chrystal Sheaff; Ann Strahl

**This was a public meeting, announced on the TNI website, to consider voters' comments on the Volume 1 Module 4 Voting Draft Standard, published for voting September 1, 2017.**

**1 - Previous Minutes**

It was moved by Shawn and seconded by Colin to approve the minutes of October 4, 2017. All were in favor. It was moved by Shawn and seconded by Francoise to approve the minutes of October 18. All were in favor.

**3 – Consideration of Comments**

The committee considered every comment made. Several comments merited changes to the standard, but they were all editorial; i.e., they would not require a substantive change to the standard, and hence would not be ruled persuasive.

**Comment 1; Section 1.5.2.2.2 b)** The commenter had a problem with "Any samples analyzed in a batch associated with a failing LOQ verification shall be reanalyzed or reported with qualifiers", because the EPA office of water publically stated data are not be qualified for compliance reporting. The Committee agreed this was non-persuasive, because the most stringent rules shall always apply, and there are many instances in which state regulations are more stringent than the standard. Ann Strahl pointed out the commenter had mis-typed the section number and this would be corrected.

**Comment 2; Section 1.5.2.2.2 a)** It was suggested the laboratory's normal acceptance ranges for recovery should not be applicable because by definition concentrations below the Reporting Limit have

significantly higher variation and therefore will fall outside acceptance limits derived from higher concentrations. The committee considered this non-persuasive, because the standard only states that the laboratory shall determine the acceptance criteria if the method does not provide any, and not that it needs to be the laboratory's normal acceptance criteria. Colin suggested editing the standard to state "...as established by Section 1.5.2.2. d), and it was agreed to modify the response. There was some discussion over the use of "quantitated" in the standard, and whether "calculated" would be better. However, it was agreed to leave this wording alone.

**Comment 3; Section 1.5.2.1.1** The commenter said any definition of DL should allow the use of the lowest standard on the curve as the DL. This was non-persuasive, and it was agreed that Val should shorten the committee's original response to state the requirements of DL in the standard currently reflect the need for any detection limit determinations to include all preparatory steps. The lowest standard of a calibration curve is not always suitable as a detection limit.

**Comment 4; Sections 1.5.2.2 d) and 1.5.2.2.1 c)** It was questioned, if there not 20 points available or established yet for the method being performed for an LOQ, whether the arbitrary 70-130% should be applied as is done per SW-846, or if additional guidance could be provided for clarity. This was non-persuasive. If the method provides guidance limits for a low level spike then those should be used, and if not the laboratory should establish limits. The committee agreed to clarify this in the guidance document, but did not feel as though guidance could be added to the standard given the wide range of methods the standard covers.

**Comment 5; Section 1.5.2.2** The commenter said Limit of Quantitation has always been based on the lowest Standard in the calibration, and not something that has been digested or extracted. Françoise said Section 1.5.2.2 a) in the 2009 standard required all sample processing steps to be included in the LOQ determination, and it was agreed to state this in the response. It was also added that the procedures for both the detection limit and the limit of quantitation now clarify the requirement that the determinations take into account the entire method as opposed to only the analytical method. The comment was non-persuasive.

**Comment 6; Section; Sections 1.5.2.1.1 and 1.5.2.1.2** This comment compared the standard to 40 CFR that requires a minimum of two spiked samples and two method blank samples prepared and analyzed on different calendar dates for each instrument, but the standard only requires one spike and one blank. Also, during any quarter in which samples are being analyzed, 40 CFR requires a minimum of two spiked samples on each instrument, in separate batches, while the standard only requires one. The committee agreed the standard is less stringent than the EPA MDL procedure, but a state or federal requirement must always be followed if more stringent. Hence, the comment was non-persuasive.

**Comment 7, Section 1.5.2.2.1 a)** In response to a comment made by two voters, the committee agreed to make an editorial change to remove the inconsistency of using both terms "spike blank" and "low level spike" by just using the latter term.

**Comment 8; Sections 1.5.2.1.1, 1.5.2.2 and 1.5.2.2.1** This comment was made by three voters, that the preservative requirement was removed from the MDL procedure (1.5.2.1.1), but was not removed from the LOQ procedure (1.5.2.2 and 1.5.2.2.1). This was an editorial oversight that had already been voted to change by the committee prior to publication of the standard to remove the preservation requirement.

Ann Strahl suggested modifying the response to make it clear the preservative requirement was removed from both. Since it was editorial it was not deemed a persuasive comment.

**Comment 9; Section 1.5.2.2.2** The commenter questioned the need for a full corrective action report, but “corrective action” is merely "An action to determine and eliminate the root cause(s) of a nonconformity to prevent further recurrence of the issue." Shawn said corrective action is determined by the laboratory. Val pointed out it is also used in the calibration section of the module, and care must be taken that it is not misunderstood by laboratories. Francoise suggested adding to the response that a list of acceptable corrective actions is found in section 1.5.2.2 b). Also, it was questioned why any samples analyzed in a batch associated with a failing LOQ verification had to be reanalyzed or reported with qualifiers. The committee felt it would be the laboratory's responsibility to notify the client if their samples were in a batch in which a QC failure occurred. Therefore, these comments were non-persuasive.

**Comment 10; Section 1.5.2.1.1 b)** It was asked if the "analytical process" included sample preparation. The committee felt the term was clear, since it is used in the EPA MDL procedure. Therefore, the comment was non-persuasive. Francoise suggested adding that sample preservation has been removed from the requirements listed in 1.5.2.2 b).

**Comment 11; Section 1.5.2.1.3** It was stated if the determined DL is greater than the LOQ value, the laboratory should evaluate the DL and LOQ data and redetermine the DL or the LOQ value, not just raise the LOQ value. The committee felt the current procedure was statistically sound, so the comment was non-persuasive.

**Comment 12; Section 1.5.2.2.1.c) ii** The commenter said the laboratory established accuracy acceptance criteria should be based on in-house limits, not just an arbitrary limit; but TNI should set a minimum criterion considering the laboratory is reporting data at this concentration. The committee response was that the standard only states that the laboratory shall determine the acceptance criteria. Although this was non-persuasive they agreed to clarify in the guidance document how to determine these limits.

**Comment 13; Section 1.5.2.2.1.c)iii.** It was suggested if the LOQ is less than the DL, the laboratory should evaluate the DL and LOQ data and redetermine the DL or the LOQ value, not just raise the LOQ value. This was non-persuasive because the committee considered the current procedure statistically sound.

**Comment 14; Section 1.5.2.2 c).** It was argued the LOQ should be at or below the lowest corresponding calibration standard concentration, and not above it as stated in the standard. This was non-persuasive, because it would contradict the requirement in Section 1.7.1.1 g).

**Vote on the response to comments** It was moved by Shawn and seconded by Deb to approve the responses, including the changes made during this call, and to move the standard forward as a final TNI standard. All were in favor.

#### **4 – Adjournment**

The meeting was adjourned at 3:35 pm EDT