TNI Credentials Committee Meeting
Wednesday, August 27, 2025 1:00 pm Eastern

1. Welcome, Roll Call, and Agenda Review

Agenda revised to include a review of a presentation for the St. Louis meeting.
And then approved by unanimous consent.

2. Approval of July minutes

Motion to approve: David
Second: Theresa
Vote: unanimous

3. Update on Administrative Support for this Committee

Jerry Parr informed the committee he will take on the role of Program Administrator for this committee

4. Consideration of Mei Beth Shepherd as a Voting Member

See Attachment 2.

5. Update on the exam in St. Louis

5.1 Exam Results

A total of 17 individuals took the exam and 16 passed. See Attachment 3. The 17th individual did not attempt to answer about 1/3 of the questions and missed many others. Excluding the one individual who failed, of the 123 valid questions in the QMS portion of the exam, the average score was 88% and the range 76-94%. Of the 123 valid questions, the average correct response was 14 of 16. For chemistry, the average score was also 88% and the range 73% to 93%. For microbiology, the average was 78% and the range 70-100%. These individuals had an average of 21 years of experience. 15 of the 16 had college degrees in science, but one individual with only a high school degree scored very well.

In hindsight, the individual who failed should not have been admitted. This person only has experience as an analyst at a small water utility.

5.2 Exam Questions

Of the 135 questions in the QMS portion of the exam, 10 of them were missed by >50% of the attendees. These are shown below with the correct answer highlighted and the number of correct responses in parentheses. The committee should review each of these to determine if the questions needs to be reworded or eliminated.

Applying an established correction factor to a measurement is a
- Calibration (5/17)
- Verification
- Fudge factor
- Any of the above
- a and b

Calibration standards must be stored separately from samples, extracts, and digestates.
- TRUE
- FALSE (1/17)

Does a reference method approved in the EPA Code of Federal Regulations for drinking water or wastewater testing need to have the laboratory validate the method?
Yes
No (5/17)

During the annual internal audit, the laboratory QA Officer observed in another area of the laboratory and not the area currently being audited, laboratory analyst was recording balance weights of their TSS samples onto scrap paper, then transferring the data to actual raw data record log. What should the QA Officer do?
Notify the Technical Manager
Delay internal audit process, make corrective actions (1/17)
Implement appropriate corrective actions without undue delay
Make a written note of the observation
a and c

Employees must document they participated in data integrity training.
TRUE
FALSE (2/17)

Environmental laboratories are not subject to the provisions specified in the TNI Standard for calibration laboratories.
TRUE
FALSE (6/17)

If an expiration date for a reagent is not provided by the manufacturer or vendor, the laboratory may
Not establish a date
Establish a date one year from purchasing
Establish any date based on professional judgement
Any of the above (6/17)
b or c

If the vendor does not provide an expiration date for a chemical, I need to assign one.
TRUE
FALSE (6/17)

Laboratories must perform corrective action and determine the root cause for PT failures, document the root cause investigation and subsequent corrective action, and provide the root cause investigation and corrective action documentation.
TRUE
FALSE (2/17)

Procedures must be documented.
TRUE
FALSE (4/17)

Of the 17 questions in the chemistry QC portion of the exam one was missed by >50% of the attendees. This question is shown below with the correct answer highlighted and the number of correct responses in parentheses. The committee should review to determine if the question needs to be reworded or eliminated.

A Limit of Quantitation (LOQ) is the minimum result which
Can be reported with confidence
Is greater than 0
Is the low point on a calibration curve
Any number the laboratory picks

a or c (4/16)

Of the 15 questions in the microbiology QC portion of the exam, 5 were missed by >50% of the attendees. This questions are shown below with the correct answers highlighted and the number of correct responses in parentheses. The committee should review to determine if the questions need to be reworded or eliminated.

Borosilicate glass and soda glass can be used for media preparation.
- TRUE
- FALSE (6/13)

How is heat sensitive media sterilized?
- Autoclaving
- Through a 0.2 µm filter (5/13)
- Boiling
- UV light
- Any of the above

Matrix Interferences in micro testing can be cause by which characteristics?
- Turbidity and color
- Competition by non-target organisms
- pH, salinity, temperature, heavy metals, disinfectants, and antibiotics (0/13)
- None of the above
- All of the above

Per the Standard Methods 23rd Edition: It is preferable to use opened bottles of media with _____ months:
- One
- Three
- Six (4/13)
- Nine
- None of the Above

Would Klebsiella pneumonia be used as a positive or negative control for Total Coliform testing?
- Positive control (6/13)
- Negative control

Of the 15 questions in the radiochemistry QC portion of the exam 5 were missed by >50% of the attendees (n = 4). The questions are shown below with the correct answers highlighted and the number of correct responses in parentheses. The committee should review to determine if the question needs to be reworded or eliminated, or maybe these questions should have been included in the tally. Note: 3 of 4 attendees taking this exam had 8 or more correct answers of the 10 questions remaining.

A recorded count in an alpha spectrometer is the result of:
- Both photomultiplier tubes receiving a photon pulse within a few nanoseconds or each other
- An alpha particle transferring its energy to electrons in the active volume of an alpha particle detector (1/4)
- An alpha particle striking the surface of an alpha particle detector
- An alpha particle creating anion pair in the test source
- A and b.

Gross gamma counting is an effective means to identify gamma-emitting nuclides in a sample.
- TRUE
- FALSE (1/4)

Which does not apply to method blanks?

The method blank must be handled using the same processes as samples in the associated batch (0/4)

The laboratory must have procedures in place to determine if method blank results are greater than the sample specific minimum detectable activity (MDA) to determine whether analyte is detected in the quality control sample

The size of the aliquot used for the method blank must be similar to that of routine samples unless acceptance criteria compensate for differing aliquot sizes

The MB sample Test Source must simulate quality system matrix characteristics that significantly affect results, such as geometry, size, and other factors, as appropriate.

A and c.

Which of the following phenomena are used in GPC to minimize detector background?

Pulse pile-up
Coincidence
Anti-coincidence (1/4)
Background subtract gate
All of the above.

Which of the following phenomena are used in LSC to minimize detector background?

Pulse pile-up
Coincidence (0/4)
Anti-coincidence
Background subtract gate
Any of the above

Only one individual took the WET exam and passed with a score of 93%.

5.3 Class Survey

Do you think the exam was fair? 4.3/5

- Some questions a bit ambiguous, but within acceptable limits for first time exam/

Did the questions fully cover the role of a QMS Professional? 4.4/5

Did the proctor act professionally? 4.9/5

- Ken was great!

Why did you sign up for this exam?

1. Find value in having credentials
2. To become certified as a QMS professional for career advancement and professional development.
3. Many reasons, mainly to prove to myself I am qualified for my role & can excel in all situations.
4. I feel this is a valuable credential and demonstrates a commitment to function as a quality professional to the highest standard.
5. Mostly curiosity.
6. To see what areas I need to work on.
7. To confirm my knowledge of the standards and have it documented by someone other than my opinion.
8. To broaden horizons and expand career opportunities.

9. My manager encouraged me for professional development.
10. Professional development and knowledge/skills test.
11. To develop myself professionally.
12. I am a lab tech pursuing a QA officer position and would like to have this credential to show my capability to fulfill that position.
13. To further develop my skills, add the weight of certification to my position, and become more involved.
14. Professional development.
15. Boost my resume; my work was willing to pay for it. I like taking tests!
16. Knowledge.

What suggestions do you have for improving the exam process?

1. Remove the ambiguity/conditionality in some of the questions.
2. Make it online so that physical presence at the TNI meeting is not required. (ABs do not approve all travel requests, especially out of state.) Having a fee for the exam is a given and acceptable.
3. A simple study guide.
4. This would be difficult to implement, would provide a structural? sectional? judgment questions (similar to SHRM certification) fore robust qualifications assessment.
5. Able to start subject matter immediately after Part II.
6. 10-15 questions n microbiology impossible to be representative of the scope.
7. There were several questions that could have different answers based on the matrix (e.g., drinking water) and the matrix was not specified.
8. Check for typos and make sure words make sense in questions.
9. Some of the questions were not clear or fair – these seemed to be multiple answers possible for some questions.
10. Some questions could be worded better.
11. Re-read questions in bank for clarify, grammar, and spelling. Review the formatting of the exam. One question had one answer on another page.
12. Need to be able to clarify questions. Some were not worded the best. Need more power outlets to charge laptops.
13. More thorough review of the questions. Some did not have unequivocal answers and some were worded strangely. Have larger margin at the top so staple does not obscure question. Let attendees take exam in one chunk so they do not have to sit and wait for others to finish. Tell attendees they cannot use a search engine since AI provides the top results.

5.4 Observations from the Proctor

6. Planning for the QMS Exam in Boston on January 15, 2026

6.1 Comprehensive Exam

The second exam should use the roughly 750-800 questions that have not been used previously in either the exam prep class or the exam in St. Louis. This new exam of 150 questions should be reviewed by volunteers from the committee or possibly by the 16 currently certified individuals.

6.2 Supplemental Exams for Other Sciences

In St. Louis, the class attendees discussed certified professionals being able to take supplemental exams for other quality control areas such as asbestos or radiochemistry. This concept has not been discussed by the committee.

7. Continue with KSAs for Metals

Begin at Section 5.2.3 of the KSA document and use AI to help.

Attachment 1
Credentials Committee Roster

NAME		EMAIL	AFFILIATION	CATEGORY	Present?
Paul	Banfer	paul.banfer@eisc.net	EISC	Other	
Kenneth	Brown	Kenneth.brown@escondido.gov	City of Escondido	Lab	Yes
Paul	Canevero	PCanevaro@Republicservices.com	US Ecology Inc./ Republic Services	Lab	Yes
Patricia	Carvajal	pmcarvajal@sariverauthority.org	San Antonio River Authority	Lab	Yes
Steve	Drielak	drielak-associates@usa.net	Drielak & Associates	Other	
Stacey	Fry	Stacey.fry@cannabis.ca.gov	CA Dept. of Cannabis Control	Other	
Salima	Haniff	Salima.haniff@bvlabs.com	Bureau Veritas Labs	Lab	Yes
Harold	Longbaugh	Harold.Longbaugh@houstontx.gov	City of Houston	Lab	Yes
Theresa	Johnson	Theresa.Johnson@mccampbell.com	McCampbell Analytical, Inc.	Lab	Yes
Melanie	Roshu	melanie.roshu@gmail.com	Matrix Sciences International, Inc.	Lab	Yes
Joann	Slavin	joann.slavin@health.ny.gov	NY DOH	AB	Yes
David	Smith	david.smith@antylia.com	Environmental Express	Other	Yes
Alfredo	Sotomayor	asotomayor@mmsd.com	Milwaukee Metropolitan Sewer District	Lab	Yes
Elizabeth	Turner	Elizabeth.turner@pacelabs.com	Pace Labs, Inc.	Lab	
Guest					
Mei Beth	Shepherd	mbshep@sheptechserv.com	Shepherd Technical Services	Other	
Staff:					
Jerry	Parr	Jerry.parr@nelac-institute.org	Program Administrator		Yes

Attachment 3- Certified Environmental Laboratory Quality Management System Professionals

The individuals listed below all passed a comprehensive examination on August 8, 2025 and have earned the right to be considered a certified professional for environmental laboratory quality management systems for the scientific areas delineated in the table.

Name	Organization	Certified for
Jennifer Bauman	City of Olathe	Chemistry and Microbiology
Alison Boren	Vermont Department of Health	Chemistry and Microbiology
Jenny Cahoon	Legend Technical Services	Chemistry and Microbiology
Alexander Chieh	San Jose-Santa Clara Regional Wastewater	Chemistry, Microbiology and Whole Effluent Toxicity
Scott Giatpaiboon	Irvine Ranch Water District	Chemistry
Salima Haniff	Bureau Veritas Laboratories	Chemistry and Microbiology
Ashley Jesernik	MWRDGC	Chemistry
Bina Kapoor	Las Virgenes Municipal Water District	Chemistry and Microbiology
Ashley Malchow	Microbac Laboratories	Microbiology
Heather Morgan	Alliance Technical Group	Chemistry
Charles Morrow	SPL Laboratories	Chemistry and Microbiology
Fred Norris	City of Garland	Chemistry and Microbiology
Matt Sowards	ACZ Laboratories, Inc.	Chemistry and Radiochemistry
Prasad Subbanna	Tennessee DEC	Chemistry, Microbiology, and Radiochemistry
Kate Verbeten	NEW Water	Chemistry and Microbiology
Virginia Zusman	Metiri Group	Chemistry and Microbiology