

**Microbiology Expert Committee (MEC)
Meeting Summary**

April 12, 2022

1. Roll Call:

Cody, Chair, called the meeting to order at 1:40pm Eastern on April 12, 2022 by teleconference. Attendance is recorded in Attachment A – there were 10 voting members present. Associates present: Carl Kircher, Bryan Mercer, Thekkekalathil Chandra, Jennifer Best, Nigel Allison, Diuto Esiobu, Dwayne Burkholder and Joe Guzman.

Jessica Hoch has been voted back onto the Committee (see March 2022 minutes).

Mary Robinson will be rotating off the Committee, so we have 14 members. We need more Other or AB members.

2. Review of Comments to the DRAFT Standard

Cody reminded the group of the discussion last month regarding Comment 9. There was agreement that the language does need to change, and the comment is Persuasive.

Comment 9:

DS Section	Comment	DS language
1.7.3.2.a	<i>VIM5 1.7.3.2.a This seems like a change rather than a clarification. This could mean an increase in media plate consumption of close to 200% for laboratories using one filtration unit per sample (2 blanks for every 1 sample). This will likely lead to a shift from one filtration unit per sample to one filtration unit for the entire batch in order to cut down on the number of blanks. If the filtration units are sterilized (and checked), and stored appropriately, then it should not be necessary to run blanks on each one. Please consider striking this change.</i>	"For filtration technique, the laboratory shall conduct method blanks per the analytical method.. The filtration series may include single or multiple filtration units, which have been sterilized prior to beginning the series. At a minimum, the filtration series shall include a beginning and ending blank for each filtration unit."

Last month we discussed several ideas before we had to end the call, including various options like:

- taking the language in the DS that combines funnels, filtration units, manifolds, filtration series like language and split it up
- defining ‘filtration series’ in the definitions of M5
- removing the language that is duplicative to the method and MCLAWD regarding filtration series (regarding 30 minutes and rinse water and sterilized prior to)
- changing language to make it clear when we are talking about a funnel, a manifold port and a filtration series to include what to do with the different kinds of funnels and what to do with multiple manifold ports

We decided that the language for the following sections needs to be edited and were working out how we want it to read. We know we need to change it so that the fact that each manifold port used requires a start and end blank.

- a. For filtration technique, the laboratory shall conduct method blanks per the analytical method. The filtration series may include single or multiple filtration units, which have been sterilized prior to beginning the series. At a minimum, the filtration series shall include a beginning and ending blank for each filtration unit.
- b. The filtration series is considered ended when more than thirty (30) minutes elapses between successive filtrations. During a filtration series analysis, filter funnels shall be rinsed with three (3) 20-30 ml portions of sterile rinse water after each sample filtration. In addition, laboratories shall insert a method blank after every ten (10) samples or sanitize filtration units by UV light (254-nm) after sample filtration.

We left off considering changing the second sentence of b) from “During a filtration series” to “During analysis.”

Cody pulled up language from the 2016 Standard, DW Manual and our DRAFT Standard. Cody tried to DRAFT some language as a starting place. She tried to simplify the paragraph. Changing a) and b). She took everything out that is already in the method.

Jennifer noted that you cannot sterilize the funnels by UV according to the Coliform Rule. It has to start with autoclave. Can use disposable funnels.

Robin found some name options on vendor sites: Filtration assembly, filtration apparatus, filter funnel manifold in 3 or 6. Units are called filtration assembly, filtration apparatus.

Jennifer Best looked in Bob Warner’s 1979 (page 71) document and suggests – membrane filtration units. She can also ask someone in Standard Methods.

The group has to ask themselves if they believe that each setup should have a series of beginning and ending blanks. If we do ... then each manifold used has to have a beginning and ending blank. Every time you add another station ... does it have to have a beginning and ending blank? If you have 20 samples and one set-up – 3 blanks. If you have two set-ups – you have more blanks to run.

The intent of the standard was that each set-up has its own blanks. Jennifer thinks there will be pushback on this.

It was suggested that each filtration unit on a manifold should have its own blanks. This will be a greater expense. Jennifer noted that this would mean the TNI Standard will be stricter than Standard Methods or DW.

If you use 3 ports on the manifold ... each set-up would have its own blanks.

What do you want to call it? The manifold is the entire filtration. What are the “ports” typically called. Some people call them “stations”. A picture may help. It could be put in the implementation document. (Action Item).

Sterile rinse water sample is another term used in some requirements, but it means the same things as method blank in how it is being used in the TNI Standard.

Call it: single or multiple vacuum supply ports/positions?

Change language to text below:

1.7.3.2.a: For filtration technique, the laboratory shall conduct method blanks per the analytical method. ~~The filtration series may include single or multiple filtration units, which have been sterilized prior to beginning the series~~ The analysis may utilize a filter funnel manifold with single or multiple vacuum supply ports/positions. At a minimum, the laboratory shall include a beginning and ending blank for each ~~filtration unit manifold port/position used~~. In addition, the laboratory shall insert a method blank after every ten (10) samples filtered per port/position unless the laboratory uses single-use funnel sets or sanitizes filtration units by UV light (254-nm) after sample filtration.

1.7.3.2.b: ~~The filtration series is considered ended when more than thirty (30) minutes elapses between successive filtrations~~ A filtration series must include filtration units that have been sterilized prior to beginning the series. During a filtration series, filter funnels shall be rinsed with three (3) 20-30 ml portions of sterile rinse water after each sample filtration. ~~In addition, laboratories shall insert a method blank after every ten (10) samples or sanitize filtration units by UV light (254-nm) after sample filtration.~~ The filtration series is considered ended when more than thirty (30) minutes elapses between successive filtrations.

The comment is persuasive.

There are two more comments the Committee needs to review. There was an email talking about silica and reagent water testing.

Comment #11:

1.7.3.1.d.iii	<i>There is not an accredited method that can meet the silica criteria for type I or type II water.</i>
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Moved the last sentence to immediately after the metals and bacteriological water quality test to clarify that the monitoring applies to those tests only (not silica). Includes language changes from Comment #1. There is an ASTM method for silica, and also some states certify to an SOP.

Change to:

1.7.3.1.d.iii: The laboratory shall monitor the quality of the water for metals (Cd, Cr, Cu, Ni, Pb, and Zn) and the Bacteriological Water Quality Test (to determine presence of toxic agents or growth promoting substances) annually. **Analysis may be performed by another laboratory that is in compliance with these standards.** An exception to performing the Bacteriological Water Quality Test shall be given to laboratories that can supply documentation to show that their water source meets the criteria, as specified by the method, for High Quality (Type I) or Medium Quality (Type II) reagent water.

This looks Persuasive.

Comment #10:

1.6.1.1	<i>How about: For all methods that specify a quantitative result, duplicate counts must be performed by qualified analysts monthly on one (1) positive sample for each month that the test is performed. Alternatively, maybe 1.6.1.1 could say something like (could be worded better, I'm sure): An individual who performs any activity involved with preparation, analysis, and/or determination of results for samples must have constant, close supervision (as defined in the laboratory's training procedure) until a satisfactory initial DOC is completed (see Section 1.6.2). Reading the section again, it does state that all analysts recount, "when possible." So, it gives leeway to the "all analysts" bit. I had to remove markup to read correctly.</i>
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Monthly analyst verification counts do not replace a DOC. We are addressing the leeway concern in Comment #5. This is looks like it is Non-persuasive.

Cody will clean-up the table and prepare it for review and voting next month.

3. New Business

None.

4. Next Meeting and Close

The next meeting will be by teleconference on May 10, 2022, at 1:30pm Eastern.

A summary of action items and backburner/reminder items can be found in Attachment B and C.

Cody adjourned the meeting at 3 pm Eastern.

Attachment A

**Participants
Microbiology Expert Committee (MEC)**

Members	Affiliation	Balance	Contact Information
Cody Danielson (Chair) (2022*) Present	Oklahoma	AB	Cody.Danielson@deq.ok.gov
Lily Giles (2022*) Absent	Louisiana	AB	Lily.Giles@LA.GOV
Jessica Hoch (2025) Present	TCEQ	Other	Jessica.Hoch@TCEQ.Texas.Gov
Robin Cook (Vice Chair) (2024*) Present	City of Daytona Beach, EML	Lab	cookr@codb.us
Ashley Larssen (2024*) Present	KC Water	Lab	ashley.larssen@kcmo.org
Jody Frymire (2022*) Present	IDEXX	Other	Jody-Frymire@idexx.com
Vanessa Soto Contreras (2023) Absent	Florida DOH	AB	Vanessa.SotoContreras@flhealth.gov
Elisa Snyder (2023*) Present	City of Austin – Austin Water Division	Lab	elisa.snyder@austintexas.gov
Hunter Adams (2023*) Absent	City of Wichita Falls – Water Purification	Lab	hunter.adams@wichitafallstx.gov
Enoma Omoregie (2024) Absent	NYC DOHMH	Lab	eomoregie@health.nyc.gov
Christabel Monteiro (2024) Present	Pace National, Analytical	Lab	christabel.monteiro@pacelabs.com
Robert Royce (2025*) Present	New Jersey	AB	Robert.royce@dep.nj.gov
Amy Hackman (2025*) Present	PA	AB	ahackman@pa.gov
Matt Graves (2025*) Present – Phone until 2:10.	ERA	Other	Matt_graves@waters.com
Ilona Taunton (Program Administrator) Absent - Recording	The NELAC Institute	n/a	Ilona.taunton@nelac-institute.org

**Attachment B
Action Items – MEC**

	Action Item	Who	Expected Completion	Actual Completion
104	Implementation Guidance for Equilibrium.	Committee	TBD	See note in 5/11/21 minutes.
105	Discuss definition of Lot with Chair of CSDP EC.	Kasey Paul Junio	2/11/21	Started, but ongoing. 7/13/21: Remove
112	Develop Understanding Microbiology Course	Cody Committee	TBD	
113	Complete Response to Draft Comments Process	All	Ongoing	
114				

Attachment C

Backburner / Reminders – MEC

	Item	Meeting Reference	Comments
1	Update charter (if needed) every 5 years.	n/a	Ongoing
2	Review Method codes and send comments to Robin for Dan Hickman.		Moved to back-burner on 6/9/20.
3	Provide an update on what has been done with the method codes and database after Jennifer's review and internal EPA meetings.		This was moved from the Action Items table. Notes: 6/9/20: Ask Jennifer for a follow-up. 11/9/20 – Not available for a follow-up.