

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

May 29, 2014

1. Roll Call and Minutes:

Robin Cook, Chair, called the meeting to order at 1:40pm EST by teleconference. Attendance is recorded in Attachment A – there were 7 members present. The following associate members were also present: Jennifer Best (EPA), Carl Kircher.

This is an additional meeting this month. Minutes will not be reviewed. They will be reviewed at the next meeting.

Associate members need to let Robin and Ilona know they own a copy of ISO 17025 so they can be included in distributions of the draft working standard updates.

2. Standard Review

Robin noted that Colin is still working on possible language changes to the “recertification” of media. She asked for feedback. Jennifer noted that she does not think it is ever OK to use expired media and this option should not be available. Low levels of stressed organisms might be missed when using expired media.

After discussion the following language was left to be worked on at the next meeting. Recertification will be removed. Section 1.7.3.1 b) i):

i) Laboratory-prepared media

1. Media prepared by the laboratory from basic ingredients and/or commercial dehydrated powder shall be tested for performance (e.g., for selectivity, sensitivity, sterility, growth promotion, and growth inhibition). These tests shall be performed at a minimum with first use.
2. Media shall be used within the holding time limits specified in the accredited method.
3. Detailed testing criteria information shall be defined in the laboratory’s methods, SOPs, or similar documentation.

ii) Ready-to-use media

1. See 1.7.3.5 a) i) 1.
2. Any ready-to-use media used past the expiration date shall be verified for usability by running quality control checks comparing the media with

freshly prepared media or by testing recovery with known densities of culture controls.

Dwayne raised an issue about water quality. Jennifer agreed that the DW manual is still using the old terminology and this committee should use the new/current terminology in the TNI Standard.

Robin asked about reagent water being used for rinse water for something like Colilert. Does it need all the testing described in the standard? Or is the water testing only required if you are using it to make media or it comes in contact with the bacteria in some way? Carl noted that if it is a presence/absence test it is not required. Other tests may require it.

Robin went back to the SIR the committee worked on that dealt with a similar topic (SIR #98 and 132). She noted that this needs to be worked on since people are sending in SIRs.

Robin does not think all the checks are needed if the water is being used for rinse water or a blank. Jennifer noted that rinsing does come in contact with the cells – so in this case it would be required. Dwayne thinks this is covered by the text already in the standard under d)i) – Reagent Water. Robin does not think the language is sufficient because the question keeps coming up. Language was drafted and now reads:

The quality of the reagent water used in the laboratory, which will come into contact with test organisms, and used in the preparation of media, solutions and buffers shall be monitored for bactericidal and inhibitory substances. This water shall be distilled water, de-ionized water or reverse-osmosis produced water.

The metals were added into iii): Analysis for metals (Cd, Cr, Cu, Ni, Pb and Zn) and ...

Dwayne raised the question about the term “annually” in d)iii). If there are tests that need to be done annually and it states every 12 months instead – would an assessor give them a finding if it was done at 11 months or 13 months? Carl noted that he would ask why it was done as it was and then take the response into consideration when deciding whether it is a finding. Dwayne probably would not unless he was seeing a pattern. Jennifer thinks it is a finding, but not a serious finding. Po thinks using “12 months” instead of “annual” is more restrictive.

The committee decided to leave the “annual” language.

1.7.3.2 – Method Blanks

No additional comments.

1.7.3.6 – Selectivity

Jennifer had a comment on b). The following changes were made:

To ensure that analysis results are accurate, target organism identity shall be verified as specified in the method (e.g., by use of the completed test, or by use of secondary

verification tests such as a catalase test or by the use a selective media such as brilliant green (BG,E. coli (EC) or EC + MUG broth.)

Culture Controls – i) Negative Culture Controls and ii) Positive Culture Controls

No changes needed.

Dwayne sent the following email for discussion on 5-21-14: *TNI VIM5 1.7.3.7.b old designation FOR DISCUSSION*

- b) *Laboratory Equipment*
 - i) *Temperature Measuring Devices*

Temperature measuring devices such as liquid-in-glass thermometers, thermocouples, and/or platinum resistance thermometers used to assess and document equipment temperatures in incubators, autoclaves and other equipment shall be the appropriate quality to meet specification(s) in the method. The graduation and range of the temperature measuring devices shall be appropriate for the required accuracy and scope of measurement. Temperature measuring devices and they shall be verified to national or international standards for temperature at the temperature of use. Verification shall be done at least annually every 12 months (see TNI Volume 1, Module 2, Section 5.5.13.1).

Comments:

- 1) Reworded first sentence to be clearer*
- 2) Included temperature range of thermometers as a requirement. For example if the method requires 44.5 +/- 0.2C then a thermometer that only goes up to 44.5 is not acceptable. Also the NIST thermometer must span the ranges of all thermometers to be tested (goes with comment 3)*
- 3) Thermometer verification must be at temperature of use. A thermometer to be used at 35.0 +/- 0.5C must be verified at that temperature not at 5C or 25C etc.*
- 4) Split the sentence to separate different concepts.*
- 5) Clarification: define annually as 12 months.*

The committee reviewed the language and the following changes were made to the standard:

- b) *Laboratory Equipment*
 - i) *Temperature Measuring Devices*

Temperature measuring devices such as liquid-in-glass thermometers, thermocouples, or platinum resistance thermometers used to assess and document equipment temperatures shall be the appropriate quality to meet specification(s) in the method. The graduation and range of the temperature

measuring devices shall be appropriate for the required accuracy of the measurement. Temperature measuring devices shall be verified at the temperature of use, to national or international standards for temperature. Verification shall be performed at least annually (see TNI Volume 1, Module 2, Section 5.5.13.1).

ii) Sterilization Equipment

This section moved.

Robin asked if more information is needed under this heading – especially when using ovens as sterilization equipment.

The information provided in this section has been the accepted practice for a long time ... so no additional changes are needed.

Dwayne provided the following email on 5-21-14: *TNI VIM5 1.7.3.7.b.iii old designation FOR DISCUSSION*

iii) Volumetric Equipment

Except for Class A labware Volumetric equipment shall be verified as follows:

- 1. equipment with movable parts such as automatic dispensers, dispensers/diluters, and mechanical hand pipettes shall be verified for accuracy quarterly every 3 months.*
- 2. when graduation marks on re-usable equipment, such as filter funnels, sample collection/analysis bottles, non-Class A glassware, and pipettes and other containers with volumetric markings (including sample analysis vessels) are used to measure volumes, are they shall be verified once per lot prior to first use and every 12 months. This verification may be volumetric or gravimetric.*
- 3. the volume of the disposable volumetric equipment such as sample collection/analysis bottles, and disposable pipettes used to measure volumes shall be checked once per lot.*
- 4. Verification of volume shall be considered acceptable if the accuracy of the volumetric equipment is within 2.5% of the expected value. Volumetric equipment that does not meet a 2.5% tolerance shall not be used to measure volume.*

Comments

- 1) *Reworded section to clearly distinguish the requirements for each type of volumetric supply. Equipment with movable parts checked every 3 months, reusable labware is checked initially and every 12 months (I think in case of changes due to repeated autoclaving??), and disposable supplies once per lot.*
- 2) *Added criteria for acceptability for these quality control since none exists. What level of accuracy or tolerance do we want?*
- 3) *Do we need to mention that labs can use volumetric or gravimetric at all? It currently is only associated with one item (moved somewhere else?).*

The committee agreed to the following changes to this section:

iii) Volumetric Equipment

Volumetric equipment shall be verified as follows:

1. equipment with movable parts such as automatic dispensers, dispensers/diluters, and mechanical hand pipettes shall be verified for accuracy quarterly.
2. equipment such as filter funnels, bottles, non-Class A glassware, and other containers with volumetric markings (including sample analysis vessels) shall be verified once per lot prior to first use.
3. the volume of the disposable volumetric equipment such as sample bottles, and disposable pipettes shall be checked once per lot.
4. **Verification of volume shall be considered acceptable if the accuracy is within 2.5% of the expected value. This verification may be volumetric as compared to a class A or gravimetric.**

The following language was removed from #2 above: This verification may be volumetric or gravimetric. It was added to #4.

The committee will start again at section v) of the standard at the next meeting.

3. Action Items

A summary of action items can be found in Attachment B. The action items were reviewed and updated.

4. New Business

None.

5. Next Meeting and Close

The next meeting will be June 10th at 1:30pm EST.

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

Robin adjourned the meeting. The meeting ended at 3:10 pm EST.

Attachment A
Participants
Microbiology Expert Committee (MEC)

Members	Affiliation	Balance	Contact Information	
Robin Cook (Chair) Present	City of Daytona Beach EML	Lab	(386)671-8885	cookr@codb.us
Patsy Root (Vice-chair) Present	IDEXX Laboratories, Inc	Other	(207)556-8947	patsy-root@idexx.com
Karla Ziegelmann- Fjeld Present	Microbiologics, Inc	Other		kfjeld@microbiologics.com
Donna Ruokonen Present	Microbac Laboratories, Inc	Lab	(219)769-8378 Ext 110	druokonen@microbac.com
Colin Fricker Absent	Analytical Services, Inc	Lab		colinfricker@aol.com
Deb Waller Absent	NJ DEP	AB	(609)984-7732	debra.waller@dep.state.nj.us
Dwayne Burkholder Present	Pennsylvania DEP	AB	(717)346-8213	dburkholde@pa.gov
Mary Robinson Present	Indiana State DOH	AB	(317)921-5523	mrobinson@isdh.in.gov
Elizabeth Turner Absent	North Texas Municipal Water District	Lab	(972)442-5405 Ext 535	eturner@ntmwd.com
Po Chang Present	Texas Commission on Environmental Quality	AB	(512)239-4876	Po.chang@tceq.texas.gov
Gary Yakub Absent	Environmental Standards, Inc.	Other	(610)935-5577	gyakub@envstd.com
Ilona Taunton (Program Administrator) Present	The NELAC Institute	n/a	(828)712-9242	Ilona.taunton@nelac-institute.org

Attachment B

Action Items – MEC

	Action Item	Who	Expected Completion	Actual Completion
1	Review Method Codes and send comments to Robin for Dan Hickman.	Deb	TBD	
4	Review Handbook and Method Codes before next meeting.	ALL	5/7/13	Handbook Complete.
11	The issue of how to recertify media will be looked at by Colin.	Colin	January Meeting	Closed – See #24 below.
12	Research possible effects of using bromine and whether it needs to somehow be included in the standard. Does not look like it.	Deb	November 2013 Meeting	
19	Provide EPA interpretation on temperature readings to Ilona. She will have it posted on the website.	Robin	1/31/14	
24	Contact Colin and check on Action Item #11. Information needed before the next meeting.	Robin	5/26/14	Checked. The group will move forward with deleting this option.
25				

