**N****TEP - Measuring Sector**

**Meeting Agenda**

September 20, 2022, 8:00 am to 5:00 pm EDT and September 21, 2021, 8:00 am to 5:00 pm EDT

Historic Inns of Annapolis, 58 State Circle, Annapolis, MD

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| Glossary of Acronyms | | | |
| CC | Certificate of Conformance | NTETC | National Type Evaluation Technical Committee |
| DMS | Division of Measurement Standards | OIML | International Organization of Legal Metrology |
| ECR | Electronic Cash Register | OWM | Office of Weights and Measures (NIST) |
| EVFS | Electric Vehicle Fueling Systems | PD | Positive Displacement |
| HB 44 | NIST Handbook 44 “Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices” | Pub 14 | NCWM Publication 14 |
| LMD | Liquid Measuring Devices | RMFD | Retail Motor-Fuel Dispenser |
| mA | milliamp | SI | International System of Units |
| MFM | Mass Flow Meters | S&T | Specifications and Tolerances |
| NCWM | National Conference on Weights and Measures | TG | Task Group |
| NIST | National Institute of Standards and Technology | VTM | Vehicle Tank Meter |
| NTEP | National Type Evaluation Program | W&M | Weights and Measures |
| This glossary is meant to assist the reader in the identification of acronyms used in this agenda and does not imply that these terms are used solely to identify these organizations or technical topics. | | | |

# Carry-over Items:

## Change to Handbook 44, 3.30. Liquid-Measuring Devices Code, Table T.2 Accuracy Class and Tolerances for Liquid Measuring Devices Covered in NIST Handbook 44, Section 3.30. (2022 S&T Committee Agenda Item LMD-22.1)

Background: This item started in 2019 when changes to Handbook 44 were adopted that changed the reference to a “Retail Motor-Fuel Devices” to “Retail Devices” and added a reference for a “DEF” device. All of the proposed changes were adopted in 2019. The members of the Measuring Sector reviewed and acted on these changes by proposing similar changes to Publication 14, LMD Checklist. These changes were presented to the members of the Measuring Sector at their 2021 meeting, during which the members agreed to include the changes. At the same Measuring Sector Meeting, the membership agreed that one additional change to the handbook should be proposed to the S&T Committee. A Form 15 was written and submitted on behalf of the Measuring Sector for inclusion in the 2022 NCWM Meeting cycle.

The proposal was added to the S&T Committee agenda as Item LMD-22.1 and recommended the addition of the words “and retail DEF” to footnote 1 of Table T.2.

During the 2021 Measuring Sector Meeting, the members agreed that if this item pass at the 2022 NCWM Annual Meeting, the item being discussed from 2019 to 2021 would be considered complete and removed from the Sector’s agenda.

During the 2022 NCWM Annual Meeting, Item LMD-22.1 was adopted via the Consent Calendar.

Recommendation: No additional work on this item is needed.

Discussion:

## **Increase the Automatic Timeout at Pay-At-Pump Retail Motor-Fuel Devices**

**Background:** At its 2020 Annual Meeting, the NCWM adopted changes to the LMD Code in Handbook 44 related to the de-authorize timeout at pay-at-pump retail motor fuel devices. The Measuring Sector members review and agreed to proposed changes to the 2021 edition of Publication 14, LMD Checklist. However, during the Measuring Sectors 2021 meeting an additional change was proposed for the 2022 edition of Publication 14, LMD Checklist.

During the 2021 Measuring Sector Meeting, the members agreed that if the change was made, this item would be considered complete and removed from the Sector’s agenda.

Recommendation: The 2022 edition of Publication 14, LMD Checklist was made. No additional work on this item is needed.

Discussion:

# New Items:

## **Permanence of ID Badge**

**Source:** California NTEP Laboratory

**Background:** It was noted that the Permanence section of Pub 14 LMD does not include anything about leaving a “footprint or destroys itself” when attempting to remove an ID badge. It is necessary to point out that in Publication 14 under Checklists and Test Procedures for Common Specific Code Requirements, item 1.11 on page LMD-23, it states “1.1. The identification badge must be permanent”. However, it offers no method to confirm this requirement.

The question to the membership is weather some guidance should be added to the Checklist for testing the permanence of the attachment of the badge.

**Recommendation:** No specific recommendation is being offered, however, if the members agree that there should be something in the Checklist, I offer the following extract from the 2022 edition of the Publication 14, Checklist for Digital Electronic Scales,

Permanence of Attachment of Badge

Attempt to remove the badge by pulling it off or prying off a metal badge that is attached using only adhesive; removal must be "difficult" at all temperatures. If the badge can be removed, it must show obvious evidence that the badge was removed. Acceptable indications are destruction of the badge by tearing, permanent and extensive wrinkling, or repeated exposure of the word "VOID" upon removal of the badge.

Discussion:

## **Permanence Test for A Stationary Analog Register**

**Source:** 2022 NTEP Laboratory Meeting

**Background:** During an evaluation, the evaluator noted that Publication 14, LMD Checklist mentions the requirement for a permanence test of analog registers when installed and operated on a Vehicle Tank Meter but is silent if the register is installed in a stationary application.

The NTEP evaluators discussed this and concluded that the checklist should include the requirement of a permanence test for analog registers installed in a stationary application. The evaluators’ reviewed the existing permanence testing requirements and agreed that the test should be for a length of 20 days.

A small group consisting of Randy Ramsey (NC NTEP Evaluator), Tina Butcher (NIST), and Darrell Flocken (NTEP Administrator) discussed this afterward and suggested that a proposal should be presented to the Measuring Sector Member

**Recommendation:** The NTEP Administrator developed the following proposal.

**Proposed change:** Change: (Pg LMD-119 of the 2022 edition of Pub 14. Measuring)

1. Laboratory and Field Evaluation – Electronic ~~Devices~~ **Indicating Element** and Software

(No other changes to paragraph A.)

**Add the following new information in its entirety.**

1. Laboratory and Field Evaluation – Analog Indicating Element Submitted Separate from a Measuring Element
2. **Use of Simulated Inputs:**

The use of simulated inputs is not accepted when evaluating analog indicating elements submitted separate from a measuring element.

**2. Field and Permanence Test of Analog Devices Subject to Evaluation:**

*Field Evaluations and Permanence Testing - General*

When necessary, permanence testing consists of conducting an initial test followed by a subsequent test. The device shall be used under conditions of normal use during the permanence period. The conditions of use and duration of the test shall be as agreed upon between the evaluating laboratory and the manufacturer.

A permanence test is required for all mobile analog “devices”. The term “devices” refers to indicators/calculators, controllers, and registers. Permanence testing shall be conducted as follows to satisfy the permanence testing criteria for mobile analog devices.

During the permanence period, the device must perform, and function correctly and not be serviced.

1. *Mobile Analog Devices:* *?should this be called a “Mobile Analog Indicating Device”?*

* Initial Evaluation:

The device will be installed on a vehicle and testing according to the NTEP checklist criteria and performance requirements by the evaluating NTEP laboratory.

* Permanence Period Requirements:

The device will be put into normal use for a period of 20-days under the following conditions:

1. For each “day” of the 20-day period, the device must be used to make at least one delivery; each delivery shall consist of at least 10 gallons. It is not necessary for these days to be consecutive.
2. There must be a minimum of 150 deliveries over the permanence period.
3. The vehicle on which the electronic indicator/register is mounted shall travel at least 400 miles during the permanence period.

* Subsequent Evaluation:

Following the defined permanence period, the device will be tested again by the evaluating NTEP laboratory to ensure the device continues to comply with applicable requirements.

1. *Stationary Analog Devices: ?should this be called a “Stationary Analog Indicating Device”?*

*Note: Analog indicating elements having been evaluated to the permanence tests for a mobile device, do not require stationary permanence testing to be used in a stationary application.*

* Initial Evaluation:

The device will be installed on a vehicle and testing according to the NTEP checklist criteria and performance requirements by the evaluating NTEP laboratory.

* Permanence Period Requirements:

The device will be put into normal use under the following conditions:

1. Four test drafts for each flow rate
2. A minimum of four flow rates shall be used with one being near minimum and one being near maximum as defined by the evaluation requirements for the meter it is going to be used with. If the analog device is intended to be across a range of meters, the testing will be expanded to include the flow rates of the additional meters.
3. The analog device must be reset to zero between tests.

* Subsequent Evaluation:

Following the defined permanence test, the device will be tested again by the evaluating NTEP laboratory to ensure the device continues to comply with applicable requirements.

Renumber all following items appropriately

**Discussion:**

## **Discussion on Adding Hydrogen to the Product Family Table in Publication 14**

**Source:** Michael Keilty, Endress+Hauser Flow

**Background:** The Hydrogen Gas-Measuring Devices Code was adopted as a full code in 2019. The sector has not integrated the HB 44 requirements into Publication14. One part of that process is to integrate Hydrogen Gas into the Product Family Table. Other parts of 3.39 Hydrogen Gas-Measuring Devices Code should be reviewed for inclusion in Pub 14.

**Discussion:**

## **General Discussion Regarding the NTEP Committee Agenda Item ADM-21.5**

**Source:** NTEP Administrator

**Background:** The NTEP Committee has item ADM-21.5 on its agenda to receive comments from NCWM industry members that will be impacted if the proposed amendment to the Verified Conformity Assessment Program (VCAP) Policy is recommended for and adopted by the NCWM Board of Directors. The item is titled:

ADM-21.5 I Expand VCAP to Include Devices That do not Require Influence Factor Testing during the

NTEP Certification Evaluation

In summary, the proposal is an Informational item intended to extend the list of devices where the holder of an Active NTEP Certificate of Conformance, for the device, must comply with the requirements of the VCAP Policy. A copy of the NTEP Committee agenda item is being distributed with this meeting agenda and will be available on the Measuring Sectors web page under the 2022 Meeting Documents.

If this VCAP Policy change is approved, it will most likely impact each manufacturer or private label Certificate of Conformance holder of a measuring device. In addition, seeing that the NTEP Committee has heard no comments from the NCWM Membership since this item was first presented, one Measuring Sector Member felt this item should be place on this meeting agenda to raise awareness.

Discussion:

# Closing Items:

1. Changes in Meeting Documentation Development Process

Source: NTEP Administrator

Background: The responsibility for the development of the meeting agenda and summary documents has changed. Beginning with the 2021 meeting a member of the Measuring Sector, with the help of NTEP personnel, will assume this responsibility. This change is based on direction from the NTEP Committee and the NCWM Board of Directors and aligns the responsibility with the current action of other Sectors, Work Groups, and Task Groups.

The NTEP Administrator will create a meeting summary report, for the 2020 Measuring Sector Meeting and will distribute to the Sector Members, at a later date.

In addition to the assignment of the individual or individuals responsible for these documents, I would encourage the Sector to develop a timeline document to assist the individual in the ability to develop a meeting agenda in a timely manner and with the least impact to their current responsibilities. Due to meeting time constraints, I would offer my assistance to develop this timeline document offline, with the distribution, review, and acceptance of the document to occur within six months from the adjournment of this meeting. A few items to be addressed in this timeline document would include:

* + 1. A deadline for the submittal of new proposals, and reports from subgroups with specific assigned tasks,
    2. A deadline for the distribution of the agenda and summary documents.

I would suggest that the timeline document be placed on the Measuring Sector’s home page on the NCWM Web Site.

**2021 MS Meeting Discussion:**

During the 2021 MS Meeting, Michael Keilty (MS Chair) opened the item up for discussion. Darrell Flocken asked that this item is to be put on hold pending the outcome of a similar topic with the standing committee reports. This was followed by some discussion on the need to finalize the outcome of an item before moving on to the next item. A second approach saw suggested that the in-meeting work could consist of listing a series of bullet points to make the creation of the meeting summary easier after the fact.

MS member Marc Buttler volunteered to take on the responsibility under certain meeting style conditions where the summary was finalized before moving on to the next item.

Mr. Keilty declared this item as closed.

**2021 MS Meeting Discussion:**

1. Meeting Location and Date of 2023 Measuring Sector Meeting

Background: This Item is included on the Sector’s agenda to allow for input from Sector members on future meetings and to allow NTEP Administration to apprise the Sector of dates that have already been set.

**2022 MS Meeting Discussion:**

1. Meeting Attendees

The following individuals participated in the 2022 Measuring Sector meeting.

Measuring Sector Members: