

# NTEP - Measuring Sector Summary

September 16-17, 2025

## Contents

NTEP - Measuring Sector Meeting Agenda.....	1
Carry-over Items: .....	3
1. ADM-23.1 (I) Acceptance of OIML-CS Test Reports Issued for Devices Evaluated to the OIML R117 Recommendation for Issuing NTEP Certificates of Conformance. ....	3
2. ADM-24.2 (I) Implement Metrological Software Version Change Policy .....	3
New Items:.....	4
1. Items that were adopted during the NCWM 2025 Annual Meeting .....	4
2. LMD-24.2 D N.4. Normal Tests.....	4
3. Loading Rack Meter Controllers with Blending Capabilities .....	4
4. 3.31 VTM Table S.2.2., 3.32 LPG&AALM Table S.2.2., 3.34 CLM Table S.2.5., 3.35 MM Table S.2.3., 3.36 WM Table S.2.1., 3.37 MFM Table S.3.5., 3.38 CDLM Table S.2.5., 3.39 HGM Table S.3.3, 3.40 EVFS Table S.3.3., 3.4.1 NUEMS Table S.2.2.....	5
5. 38. Credit Card or Debit Card-Activated Retail Motor Fuel Dispenser Review .....	5
6. 38.8 Cash Value Card “remove initial cash value” .....	5
7. LMD 40 Test Method .....	6
8.. Modify Handbook 44 to codify that density correction may be used to account for the volume growth that occurs when gasoline is blended with ethanol to make a finished motor fuel. See attachments for details.....	6
NCWM Form 15 - HB 44 - Density Correction CLEAN 8-14-25.docx.....	6
API Proposal - HB 44 proposed language 8-15 CLEAN .docx .....	6
NCWM Form 15 - HB 130 Density Correction Method of Sale FINAL.docx.....	6
API Proposal - HB130 proposed language 8-15 CLEAN Method of Sale.docx.....	6
Closing Items.....	7
1. Meeting Location and Date of 2026 Measuring Sector Meeting.....	7
2. Meeting Attendees. ....	7

<b>Glossary of Acronyms</b>			
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:**

### **1. ADM-23.1 (I) Acceptance of OIML-CS Test Reports Issued for Devices Evaluated to the OIML R117 Recommendation for Issuing NTEP Certificates of Conformance.**

Source: Dmitri Karimov/ Advanced Flow Solution

Update the manufacturer's positions on this issue and understand the next steps by the BOD/NTEP Committee.

Discussion/Conclusion: The Meter Manufacturers Association (MMA) cannot support this proposal as there was no consensus. This has been an item for two years on the NTEP committee agenda. The NTEP committee will decide whether to send this item to the Board for consideration at the October 2025 board meeting. The outcome will be listed in upcoming Interim meeting in January 2026.

We heard comments from a manufacturer with concern of questionable lab data, and there may be devices from other labs that have not gone through rigorous NTEP evaluation. It was also stated that NTEP inspectors can always travel to witness OIML lab testing.

There were other manufacturers present that support this item. Example is a meter series of different size, and the USA labs are limited in their test flowrate for large meters. So the manufacturer may have to go to OIML or other labs for larger meters. Another example was that NIST had shut down a cryogenic lab, so the only capable lab was overseas.

Other comments: there is a difference between reciprocal approval of a device versus approval of data provided by OIML CS lab. Per the NTEP administrator for this proposal there would be no difference whether it is an approval for an all new devices or an addendum to an existing device.

### **2. ADM-24.2 (I) Implement Metrological Software Version Change Policy**

Source: NTEP Administrator

Background: To encourage companies to inform NTEP of metrological changes to software and have an easier more economical application to submit the changes.

Discussion/Conclusion: The purpose of this item is to develop a lower cost application fee for software version changes, and to update the Publication 14 Administrative Policy to specifically call out software metrological changes. There is a need to remove the "version xxx or higher" statement that is on many certificates. It was stated that the water meter industry is one example of having many instances of not complying with notifying NTEP for metrological software changes. It was also stated that POS (point of sale) devices are often not compliant with notifying NTEP for metrological software changes. The NTEP Administrator will draft language for Section 20 of the Publication 14 Administrative Policy. There has been no opposition to this proposal at past interim/annual meetings, however there was concern over the increased workload for the NTEP program. The NTEP committee will decide whether to send this item to the Board for consideration at the October 2025 board meeting. The outcome will be listed in upcoming Interim meeting in January 2026. The application selection on the NCWM website will have to be developed to allow a selection for a metrological software only change. The reduced fee of the software application will be determined by the Board.

## **New Items:**

### **1. Items that were adopted during the NCWM 2025 Annual Meeting**

There were no items that were adopted during the NCWM 2025 Annual meeting that require changes to Publication 14 Measuring Devices.

### **2. LMD-24.2 D N.4. Normal Tests**

Source:

Dmitri Karimov/ Advanced Flow Solutions

Background:

Review the NIST analysis provided at the annual meeting and provide Measuring Sector input. This item can impact the field testing of meters subject to Normal and Special tests.

Discussion/Conclusion: Dmitri Karimov (Advanced Flow Solutions) reviewed and determined that NTEP evaluation was more stringent than placed in service testing, so this item is not an issue and withdraws his concern.

### **3. Loading Rack Meter Controllers with Blending Capabilities**

Source:

Michael Keilty  
Endress + Hauser

Background:

In addition to the Common and General Code Criteria and applicable sections of the Wholesale and Loading Rack Meters and other Checklists, the following applies to tests of Loading Rack Meter Controllers with Blending Capabilities:

1. For NTEP testing, it is acceptable for the sum of the total quantity printed/displayed for each component of the blend to be different from the total quantity delivered due to intermediate rounding of each component. For example, if the quantity for each component has a higher internal resolution than that displayed, the displayed/printed quantity will be a rounded value. If each component of the blend is rounded in this way, the sum of the components may be different (due to rounding) than the actual quantity delivered by the system.

2. Only mathematical corrections prescribed by the American Petroleum Institute (API) Manual of Petroleum Measurement Standards (MPS) is permitted to account for growth or shrinkage due to blending of product.

Specifically, I would like to review the minutes from the 2023 meeting. I don't see where the MS agreed that the proposed language would be added to the Policy O. There is currently no supporting language in NIST Handbook 44 to support this procedure and no defined field test protocol. There is no language to support NTEP evaluation testing.

**2023 Measuring Sector Summary is attached to the agenda**

Discussion/Conclusion: The Measuring Sector decided to remove line 2 from Section O of Publication 14 Technical Policy for Liquid Measuring Devices. This line was added in 2024 edition after the 2023 Measuring Sector meeting. There is currently no Handbook 44 or Handbook 130 specification for “blending” compensation. The 2023 Measuring Sector summary concerns from Jim Pettinato (FMC) were resolved with a certificate wording change.

**4. 3.31 VTM Table S.2.2., 3.32 LPG&AALM Table S.2.2., 3.34 CLM Table S.2.5., 3.35 MM Table S.2.3., 3.36 WM Table S.2.1., 3.37 MFM Table S.3.5., 3.38 CDLM Table S.2.5., 3.39 HGM Table S.3.3, 3.40 EVFS Table S.3.3., 3.4.1 NUEMS Table S.2.2**

Source:

Michael Keilty  
Endress + Hauser

Background:

Discussion/Conclusion:

Michael Keilty (Endress + Hauser) had submitted a Form 15 proposal looking for Measuring Sector support. After lengthy discussion the proposal was re-worked to align all the measuring device codes language for Category 3 sealing. The Measuring Sector will submit the proposal on a Form 15 and use the language from the EVSE Category 3 section (changing the word EVSE to “device” in the last sentence). This promotes consistency with all measuring device codes (EVSE, LMD, and the ones listed in the original Form 15). Existing LMD devices with category 3 sealing approval will not be impacted with this adoption of the EVSE Category 3 language. The Measuring Sector reviewed final edits and approved the Form 15 that will be sent to NCWM.

**5. 38. Credit Card or Debit Card-Activated Retail Motor Fuel Dispenser Review**

Source:

2025 NTEP Laboratory Meeting

Background:

There are parts of this section that need “Corrected and or cleaned up”

Discussion/Conclusion:

Change timeout from two minutes to three minutes in section 38 of Publication 14. Handbook 44 changed from two to three minutes back in 2021.

**6. 38.8 Cash Value Card “remove initial cash value”**

Source:

2025 NTEP Laboratory Meeting

Background:

There are parts of this section that need “Corrected and or cleaned up”

Discussion/Conclusion: After discussion the Measuring Sector concluded that the entire 38.8 section should be deleted. This section applied only to gift cards and remaining balances and initial balances and deemed not prudent to have these test procedures.

## 7. LMD 40 Test Method

Source:

2025 NTEP Laboratory Meeting

Background:

There are parts of this section that need “Corrected and or cleaned up”.

Discussion/Conclusion:

The Measuring Sector supported changing within section 40.2 all references to two minute timeout shall be changed to three minutes. Reference Handbook 44 Section 3.30 S.1.6.10 automatic timeout.

Other discussion:

The Measuring Sector discussed and questions other section with 40.2. For example Section 40.2.5 for MPD’s had a 15 second callout whereas 40.2.4 for non MPDs has no time requirement. Some measuring sector members agreed to perform some data gathering on section 40.2 and report back to the Measuring Sector chair. This item will return on the agenda next year.

## 8.. **Modify Handbook 44 to codify that density correction may be used to account for the volume growth that occurs when gasoline is blended with ethanol to make a finished motor fuel. See attachments for details.**

Source:

James M. (Jim) Pettinato Jr.  
Guidant Measurement

Background:

NCWM Form 15 - HB 44 - Density Correction CLEAN 8-14-25.docx  
API Proposal - HB 44 proposed language 8-15 CLEAN .docx  
NCWM Form 15 - HB 130 Density Correction Method of Sale FINAL.docx  
API Proposal - HB130 proposed language 8-15 CLEAN Method of Sale.docx

**All four documents are attached to the agenda.**

Discussion/Conclusion:

The Measuring Sector discussed the API Form 15 proposal for density correction of ethanol blends at wholesale loading racks. Jim Pettinato gave a presentation that was provided by Prentiss Searles of API. It was mentioned that

validation testing with video documentation is being undertaken to demonstrate the volume growth of the final blended product. The Measuring Sector did not make any recommendations on this Form 15 proposal.

**Other discussion:**

**ADM 25.1 Addition of water meters to VCAP (Verified Conformity Assessment Program)**

This proposal originated from concerns brought forth by California regulators due to excessive water meter failure rates. California is only state in which the W&M agencies regulate water sub-meters. At the Interim 2025 there were only comments heard from regulatory officials. At the 2025 Annual meeting Badger (a water meter manufacturer) provided commentary and letters were submitted from multiple water meter manufacturers. It was recommended that water meter manufacturers come to the conferences and make comments. The NTEP committee will determine whether to send to BOD for consideration, and this is not a general voting item.

California regulators are assembling failure data, and it is expected to be available by the Interim 2026 meeting.

VCAP is an audit of the manufacturer's quality management system. Any additional VCAP information along with VCAP documents and checklists for manufacturers is available on the NCWM website. VCAP would be mandatory for NTEP approved water meters if this item goes through.

## **Closing Items**

### **1. Meeting Location and Date of 2026 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.

Pensacola Beach FL, San Antonio TX, Clearwater FL, St. Petersburg FL, Austin TX, Tampa FL, Myrtle Beach SC, Annapolis MD

Next meeting date: September 15th and morning of September 16th, 2026 for Measuring Sector  
Note the Software Sector meeting will be afternoon of Sept 16<sup>th</sup> and the 17<sup>th</sup>, 2026.

### **2. Meeting Attendees.**

The final list of attendees will be available from the NCWM for the 2025 Measuring Sector meeting and can be obtained by emailing [info@ncwm.com](mailto:info@ncwm.com) and requesting the list.