

Instructions for Completing the Report

For items designated **Voting** by NCWM:

- Express regional support as written
- Express regional support with recommended modifications
- Express regional opposition or concern and a recommendation to downgrade to Informational, Developing, or Withdrawn, **OR**
- Take no regional position on the item.

For items designated **Informational, Assigned** or **Developing**:

- Provide comments and suggestions to improve the item and, if appropriate, recommend a status change,
- Recommend the item be withdrawn with justification, **OR**
- Indicate that the item was reviewed and there were no comments.

For **New Items** which have no assigned status:

- Forward the item to NCWM with comments and recommended status of Voting, Informational, Assigned, Developing, **OR**
- Do not forward to NCWM and provide justification for this action. In this instance, you will recommend a Withdrawal of the item in case it was forwarded to NCWM by another region, **OR**
- Select the final option of “No Recommendation”. This option is used when the region lacks insight on whether the proposal has merit. The proposal will not be forwarded to NCWM by your region.

1. Provide the recommendation to NCWM for each item along with comments to appear in NCWM Publication 15.
2. If your region receives any additional new items after this agenda was distributed, copy an item template and paste as needed at the end of this report to record them.
3. You may update the Table of Contents:
 - a. Right-click inside the Table of Contents
 - b. Select “Update Field”
 - c. If prompted, select “Update entire table”
4. To indicate recommended item status:
 - a. Double-click square next to desired status
 - b. Under “Default value” select Checked
 - c. Select OK
5. Make any corrections to the committee chair (on the first page) and the committee members (listed at the end of the report).
6. If you find any errors in the document, please submit a separate copy to don.onwiler@ncwm.com with track changes.

Return final reports as soon as possible to don.onwiler@ncwm.com. Your reports will be posted on the regional website.

CWMA Specifications and Tolerances (S&T) Committee 2022 Annual Meeting Report Template

Mr. Charles Stutesman, Committee Chair
Kansas

INTRODUCTION

The S&T Committee will address the following items in Table A during the Interim Meeting. Table A identifies the agenda items by reference key, title of item, page number and the appendices by appendix designations. The headings and subjects apply to *Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2020 Edition*. The first three letters of an item's reference key are assigned from the Subject Series List. The next 2 digits represent the year the item was introduced. The acronyms for organizations and technical terms used throughout the agenda are identified in Table B. In some cases, background information will be provided for an item. The fact that an item appears on the agenda does not mean it will be presented to the National Conference on Weights and Measures (NCWM) for a vote. The Committee will review its agenda and may withdraw some items, present some items for information meant for additional study, issue interpretations, or make specific recommendations for change to the publications identified, which will be presented for a vote at the Annual Meeting. The Committee may also take up routine or miscellaneous items brought to its attention after the preparation of this document. The Committee may decide to accept items for discussion that are not listed in this document, providing they meet the criteria for exceptions as presented in NCWM Policy 3.1.4. Handbooks, *Procedures to Modify Handbooks*. The Committee has not determined whether the items presented will be Voting or Informational in nature; these determinations will result from their deliberations at the Interim Meeting.

An "Item under Consideration" is a statement of proposal and not necessarily a recommendation of the Committee. Suggested revisions are shown in **bold face print** by ~~striking out~~ information to be deleted and **underlining** information to be added. Requirements that are proposed to be nonretroactive are printed in ***bold faced italics***.

In some cases, there may be proposed changes affecting multiple model laws or regulations that share the same purpose or proposed changes to one model law or regulation may be dependent on the adoption of proposed changes to another. The Committee may group such items into "Blocks" to facilitate efficient handling for open hearings and voting. These blocks are identified in Committee's agenda.

All sessions are open to registered attendees of the conference. If the Committee must discuss any issue that involves proprietary information or other confidential material; that portion of the session dealing with the special issue may be closed if (1) the Chairman or, in his absence, the Chairman-Elect approves; (2) the Executive Director is notified; and (3) an announcement of the closed meeting is posted on or near the door to the meeting session and at the registration desk. If possible, the posting will be done at least a day prior to the planned closed session.

Note: It is policy to use metric units of measurement in publications; however, recommendations received by NCWM technical committees and regional weights and measures associations have been printed in this publication as submitted. Therefore, the report may contain references to inch-pound units

Subject Series List

Handbook 44 – General Code.....	GEN Series
Scales.....	SCL Series
Belt-Conveyor Scale Systems	BCS Series
Automatic Bulk Weighing Systems	ABW Series
Weights.....	WTS Series
Automatic Weighing Systems	AWS Series
Weigh-In-Motion Systems used for Vehicle Enforcement Screening.....	WIM Series
Liquid-Measuring Devices	LMD Series
Vehicle-Tank Meters	VTM Series
Liquefied Petroleum Gas and Anhydrous Ammonia Liquid-Measuring Devices	LPG Series
Hydrocarbon Gas Vapor-Measuring Devices.....	HGV Series
Cryogenic Liquid-Measuring Devices.....	CLM Series
Milk Meters	MLK Series
Water Meters	WTR Series
Mass Flow Meters	MFM Series
Carbon Dioxide Liquid-Measuring Devices.....	CDL Series
Hydrogen Gas-Metering Devices	HGM Series
Electric Vehicle Refueling Systems	EVF Series
Vehicle Tanks Used as Measures	VTU Series
Liquid Measures	LQM Series
Farm Milk Tanks	FMT Series
Measure-Containers.....	MRC Series
Graduates.....	GDT Series
Dry Measures	DRY Series
Berry Baskets and Boxes.....	BBB Series
Fabric-Measuring Devices.....	FAB Series
Wire-and Cordage-Measuring Devices	WAC Series
Linear Measures	LIN Series
Odometers	ODO Series
Taximeters.....	TXI Series
Timing Devices	TIM Series
Grain Moisture Meters (a).....	GMA Series
Grain Moisture Meters (b).....	GMB Series
Near-Infrared Grain Analyzers.....	NIR Series
Multiple Dimension Measuring Devices	MDM Series
Electronic Livestock, Meat, and Poultry Evaluation Systems and/or Devices.....	LVS Series
Transportation Network Measuring Systems	TNS Series
Other Items	OTH Series

**Table A
Table of Contents**

Reference Key	Title of Item	S&T Page
GEN – GENERAL CODE		7
GEN-22.1	V G.A.1. Commercial and Law-Enforcement Equipment	7
GEN-19.1	D G-T.5. Tolerances on Tests When Transfer Standards are Used., Appendix A, Section 3.2. Tolerances for Standards., and Appendix D – Definitions: standards, field., transfer standard. and standard, transfer, Error! Bookmark not defined.	7
SCL – SCALES		7
SCL-20.9	W S.1.1.3. Zero Indication, Load Receiving Elements Separate from Weighing Elements. and Appendix D – Definitions: no load reference value	7
SCL-22.2	A UR.1. Selection Requirements, UR.1.X. Cannabis	7
LMD – LIQUID MEASURING DEVICES		8
LMD-21.1	V Table S.2.2. Categories of Device and Method of Sealing	8
LMD-22.1	V Table T.2. Accuracy Classes and Tolerances for Liquid Measuring Devices Covered in NIST Handbook 44, Section 3.30	9
VTM – VEHICLE TANK METERS		9
VTM-18.1	V S.3.1 Diversion of Measured Liquid and S.3.1.1. Means for Clearing the Discharge Hose and UR.2.6. Clearing the Discharge on a multiple-product, single discharge hose	9
VTM-20.2	A Table T.2. Tolerances for Vehicle Mounted Milk Meters.	10
LPG – LIQUIFIED PETROLEUM GAS AND ANHYDROUS AMMONIA LIQUID-MEASURING DEVICES		10
LPG-22.1	V A.1. General., and Appendix D – Definitions. Liquefied Petroleum Gas Retail Motor Fuel Device.	10
LPG-15.1	D N.3. Test Drafts.	11
LPG-22.2	W S.2.6. Zero-Set-Back Interlock, for Stationary Customer-Operated Retail Motor-Fuel Devices, Electronic.	13
LPG-22.3	D S.2.5. <i>Zero-Set-Back Interlock.</i> , S.2.5.2. <i>Zero -Set-Back Interlock for Stationary Customer -Operated Electronic Retail Motor-Fuel Devices.</i>	13
MFM – MASS FLOW METERS		14
MFM-15.1	D N.3. Test Drafts.	14
MFM-22.1	V Table T.2. Accuracy Classes and Tolerances for Mass Flow Meters.	16
EVF – ELECTRIC VEHICLE FUELING SYSTEMS		16
EVF-21.1	D A.1. General.	16
EVF-20.1	V S.1.3.2. EVSE Value of the Smallest Unit.	17
EVF-21.5	D T.2. Load Test Tolerances.	17
TXI – TAXIMETERS		18
TXI-22.1	V Table S.5. Categories of Device and Methods of Sealing.	18
GMA – GRAIN MOISTURE METERS 5.56 (A)		18
GMA-19.1	D Table T.2.1. Acceptance and Maintenance Tolerances Air Oven Method for All Grains and Oil Seeds.	18
MDM – MULTIPLE DIMENSION MEASURING DEVICES		19
MDM-22.1	D S.1.7. Minimum Measurement.	19
OTH – OTHER ITEMS		19
OTH-16.1	D Electric Watthour Meters Code under Development	19

OTH-22.1	D	Appendix A: Fundamental Considerations, 3. Testing Apparatus... Error! Bookmark not defined.	
OTH-22.2	V	Appendix D – Definitions: face	20
ITEM BLOCK 1 (B1)		TERMINOLOGY FOR TESTING STANDARDS	21
B1: SCL-18.1	W	N.2. Verification (Testing) Standards	21
B1: ABW-18.1	W	N.2. Verification (Testing) Standards	21
B1: AWS-18.1	W	N.1.3. Verification (Testing) Standards, N.3.1. Official Tests, UR.4. Testing Standards	21
B1: CLM-18.1	W	N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards	21
B1: CDL-18.1	W	N.3.2. Transfer Standard Test, T.3. On Tests Using Transfer Standards	21
B1: HGM-18.1	W	N.4.1. Master Meter (Transfer) Standard Test, T.4. Tolerance Application on Test Using Transfer Standard Test Method	21
B1: GMA-18.1	W	5.56(a): N.1.1. Air Oven Reference Method Transfer Standards, N.1.3. Meter to Like-Type Meter Method Transfer Standards and 5.56(b): N.1.1. Transfer Standards, T. Tolerances ¹	21
B1: LVS-18.1	W	N.2. Testing Standards	21
B1: OTH-18.1	W	Appendix A: Fundamental Considerations, 3.2. Tolerances for Standards, 3.3. Accuracy of Standards	21
B1: OTH-18.2	W	Appendix D – Definitions: fifth-wheel, official grain samples, transfer standard and Standard, Field	21
BLOCK 2 ITEMS (B2)		DEFINE TRUE VALUE FOR USE IN ERROR CALCULATIONS	22
B2: SCL-20.3	A	S.5.4. Relationship of Minimum Load Cell Verification Interval to the Scale Division	22
B2: SCL-20.4	A	Table 3. Parameters of Accuracy Classes.	22
B2: SCL-20.5	A	Table S.6.3.a. Marking Requirements, Note 3.	22
B2: SCL-20.6	A	T.N.1.2. Accuracy Classes and T.N.1.3. Scale Division.	22
B2: SCL-20.7	A	Table 7. Maintenance Tolerances	22
B2: SCL-20.8	A	Table 8. Recommended Minimum Load	22
BLOCK 3 ITEMS (B3)		TOLERANCES FOR DISTANCE TESTING IN TAXIMETERS AND TRANSPORTATION NETWORK SYSTEMS	23
B3: TXI-20.1	D	T. Tolerances	23
B3: TNS-20.1	D	T. Tolerances	23
BLOCK 4 ITEMS (B4)		ELECTRONICALLY CAPTURED TICKETS OR RECEIPTS	25
B4: GEN-21.2	D	G-S.5.6. Recorded Representations.	25
B4: LMD-21.2	D	S.1.6.5. Money Value Computations., UR.3. Use of a Device.	25
B4: VTM-21.1	D	S.1.1. Primary Elements., UR.2. User Requirements	25
B4: LPG-21.1	D	S.1.1. Primary Elements., UR.2. User Requirements	25
B4: CLM-21.1	D	S.1.4.1. Printed Ticket Recorded Representation., UR.2.6.3. Printed Ticket Recorded Representation	25
B4: MLK-21.1	D	S.1.4.2. Printed Ticket Recorded Representation., UR.2.6.3. Printed Ticket Recorded Representation.	25
B4: MFM-21.2	D	S.6. Printer Recorded Representations., UR.2.6. Ticket Printer, Customer Ticket, Recorded Representation., UR.3.4. Printed Ticket. Recorded Representation.	25
B4: CDL-21.1	D	S.1.4.1. Printed Ticket Recorded Representations., UR.2.4.2. Tickets or Invoices. Recorded Representation.	25
B4: HGM-21.1	D	S.2.6. Recorded Representations, Point of Sale Systems., S.6. Printer. Recording Element., UR.3.2. Vehicle-mounted Measuring Systems Ticket Printer Recording Element., UR.3.3. Printed Ticket. Recorded Representation.	25
B4: OTH-21.2	D	Appendix D - Definitions.: recorded representations, recording element.	25
ITEM BLOCK 5 (B5)		DEFINE “FIELD REFERENCE STANDARD”	26
B5: CLM-18.2	W	N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards	26
B5: CDL-18.2	W	N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards	26

B5: HGM-18.2	W	N.4.1. Master Meter (Transfer) Standard Test and T.4. Tolerance Application on Test Using Transfer Standard Test Method	26
B5: OTH-18.3	W	Appendix D – Definitions: field reference standard meter and transfer standard	26
BLOCK 6 ITEMS (B6)		COMMERCIAL AND LAW ENFORCEMENT, AXLE AND AXLE GROUP WEIGHTS	26
B6: SCL-22.1	D	Recorded Representation of Axle or Axle Group Weights	26
B6: SCL-22.3	D	UR.3.3. Single-Draft Vehicle Weighing., and UR.3.4. Axle and Axle Group Weight Values.	26
BLOCK 7 ITEMS (B7)		TOLERANCES ON TESTS USING TRANSFER STANDARDS	27
B7: CLM-22.1	D	T.3. On Tests Using Type 2 Transfer Standards	27
B7: CDL-22.1	D	T.3. On Tests Using Type 2 Transfer Standards	27
B7: HGM-22.1	D	T.4. Tolerance Application on Tests Using Type 2 Transfer Standard Test Method.	27
BLOCK 8 ITEMS (B8)		TOLERANCES ON TESTS USING TRANSFER STANDARDS, APPENDIX A - TOLERANCES FOR STANDARDS, AND APPENDIX D – FIELD STANDARDS AND TRANSFER STANDARDS	28
B8: GEN-19.1	D	G-T.5. Tolerances on Tests When Transfer Standards are Used., Appendix A, Section 3.2. Tolerances for Standards., and Appendix D – Definitions: standards, field., transfer standard and standard, transfer.	28
B8: OTH-22.1	D	Appendix A: Fundamental Considerations, 3. Testing Apparatus	28

Table B
Glossary of Acronyms and Terms

Acronym	Term	Acronym	Term
ABWS	Automatic Bulk Weighing System	NEWMA	Northeastern Weights and Measures Association
AAR	Association of American Railroads	NIST	National Institute of Standards and Technology
API	American Petroleum Institute	NTEP	National Type Evaluation Program
CNG	Compressed Natural Gas	OIML	International Organization of Legal Metrology
CWMA	Central Weights and Measures Association	OWM	Office of Weights and Measures
EPO	Examination Procedure Outline	RMFD	Retail Motor Fuel Dispenser
FHWA	Federal Highway Administration	S&T	Specifications and Tolerances
GMM	Grain Moisture Meter	SD	Secure Digital
GPS	Global Positioning System	SI	International System of Units
HB	Handbook	SMA	Scale Manufacturers Association
LMD	Liquid Measuring Devices	SWMA	Southern Weights and Measures Association
LNG	Liquefied Natural Gas	TC	Technical Committee
LPG	Liquefied Petroleum Gas	USNWG	U.S. National Work Group
MMA	Meter Manufacturers Association	VTM	Vehicle Tank Meter
MDMD	Multiple Dimension Measuring Device	WIM	Weigh-in-Motion
NCWM	National Conference on Weights and Measures	WWMA	Western Weights and Measures Association

Details of All Items
(In order by Reference Key)

GEN – GENERAL CODE

GEN-22.1 V G.A.1. Commercial and Law-Enforcement Equipment.

CWMA Report: GEN-22.1
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Jan Konijnenburg – NIST OWM – Stated fully developed and ready for a vote. Russ Vires – SMA – Supports the item Konrad Crockford – ND – Supports the item Charlie Stutesman – KS – Believes final determination of a device should be decided by the local jurisdiction and item should not move forward Doug Musick – KS – The word commercial should be stricken from Line 13 on page 149 as well as Line 6 on page 150. The CWMA S&T Committee believes this item is fully developed and should remain a voting item with the following changes: Page 149 Line 13, <u>(1) To commercial weighing and measuring equipment; that is:</u></p>

SCL – SCALES

SCL-20.9 W S.1.1.3. Zero Indication, Load Receiving Elements Separate from Weighing Elements. and Appendix D – Definitions: no load reference value

SCL-22.2 A UR.1. Selection Requirements, UR.1.X. Cannabis

CWMA Report: SCL-22.2
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input checked="" type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda

<p><i>(To be developed by source of the proposal)</i></p> <p><input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i></p> <p><input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i></p>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Doug Musick – KS – Welcomed the attempt to define suitability; Recommended the following: <i>SCL-22.2 UR.1. Selection Requirements, UR.1.X. Cannabis</i> <i>UR.1.X. Cannabis. – A retail Cannabis scale shall not be used to weigh net loads smaller than 100 displayed scale divisions “d”,</i> <i>(a) 0.01g for net weighments 10g or less,</i> <i>(b) 0.1g for net weighments greater than 10g and up to 100g, and</i> <i>(c) 1g for net weighments greater than 100g.</i> <i>(Added 20XX)</i></p> <p>Russ Vires – SMA – The addition of a User Requirement is not the best approach in this situation; User Requirements do not typically apply to a specific commodity. Supports continuing as developing and the following proposed changes should be considered instead:</p> <ul style="list-style-type: none"> - <i>The words “retail cannabis” should be added to the “Class II” section of Table 7a.</i> - <i>The words “bulk cannabis processing and sales” should be added to the “Class III” section of Table 7a.</i> <p>Charlie Stutesman – KS – Questions why only metric units are referenced and not also include inch-pound units. The CWMA S&T Committee recommends this item remain with the NCWM Cannabis Task Group and that the suggested changes are considered.</p>

LMD – LIQUID MEASURING DEVICES

LMD-21.1 V Table S.2.2. Categories of Device and Method of Sealing

<p>CWMA Report: LMD-21.1</p>
<p>Regional recommendation to NCWM on item status:</p> <p><input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></p> <p><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></p> <p><input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i></p> <p><input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i></p>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Brent Price – Gilbarco - On behalf of Gilbarco and industry, appreciate the support to allow electronic format for event logger. Printed copy on site is difficult when the system doesn’t contain printers. Taxi meters and EVSE allow digital versions of event logger. The CWMA S&T Committee recommends this item to remain a voting item.</p>

LMD-22.1 V Table T.2. Accuracy Classes and Tolerances for Liquid Measuring Devices Covered in NIST Handbook 44, Section 3.30

CWMA A Report: LMD-22.1	
Regional recommendation to NCWM on item status:	
<input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>	
Comments and justification for the regional recommendation to NCWM: (This will appear in NCWM reports)	
<p>Michael Keilty – Endress+Hauser, Chair of NTEP Measuring Sector - Possibility of confusion that would allow retail DEF dispensers to have a different tolerance. Recommend moving forward as voting item.</p> <p>Brent Price – Gilbarco - Supports the item. When DEF dispensers were built, they built them along the same guidelines as RMFD. This provides clarity.</p> <p>The CWMA S&T Committee recommends this item to remain a voting item.</p>	

VTM – VEHICLE TANK METERS

VTM-18.1 V S.3.1 Diversion of Measured Liquid and S.3.1.1. Means for Clearing the Discharge Hose and UR.2.6. Clearing the Discharge on a multiple-product, single discharge hose.

CWMA Report: VTM-18.1	
Regional recommendation to NCWM on item status:	
<input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>	
Comments and justification for the regional recommendation to NCWM: (This will appear in NCWM reports)	
<p>No comments from the floor.</p> <p>The CWMA S&T Committee recommends this item to remain a voting item.</p>	

VTM-20.2 A Table T.2. Tolerances for Vehicle Mounted Milk Meters.

CWMA Report: VTM-20.2
<p>Regional recommendation to NCWM on item status:</p> <p> <input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input checked="" type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i> </p>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Charlie Stutesman – KS, Chair of Milk Meter Tolerance Task Group (MMTTG) – Following 2022 NCWM Interim meeting, this item was sent back to the MMTTG. Moving forward with staying with original tolerances that were proposed. Request to expand scope has been submitted. There will be a MMTTG meeting prior to the July annual meeting. Hoping to move forward and elevate to voting status for next cycle.</p> <p>The CWMA S&T Committee recommends this item to remain an assigned item.</p>

LPG – LIQUIFIED PETROLEUM GAS AND ANHYDROUS AMMONIA LIQUID-MEASURING DEVICES

LPG-22.1 V A.1. General., and Appendix D – Definitions. Liquefied Petroleum Gas Retail Motor Fuel Device.

CWMA Report: LPG-22.1
<p>Regional recommendation to NCWM on item status:</p> <p> <input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i> </p>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>No comments from the floor.</p> <p>The CWMA S&T Committee recommends this item to remain a voting item.</p>

LPG-15.1 **VD N.3. Test Drafts.**

CWMA Report: LPG-15.1
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Micheal Keilty – Endress+Hauser – Mr. Keilty presented calibration data at the 2022 NCWM Interim meeting. No recommendations from NCWM have been released. Recommended a minor change that re-includes the word “meters” because it was confusing how to apply testing requirements. Both items explain the amount of test drafts that differ from other volume standards. Field standard meter provides flexibility for use across many different products and densities. Field Standards are tested against OIML and API standards using gravimetric methods that are NIST traceable. Accuracy and repeatability are long term, it is a maintenance free system with no moving parts. These systems save time and space, contain embedded diagnostics, are easy to use, and easy to maintain. It is easy to train the operator of these systems. NMi has issued a test report on this system. Various setups can be mounted to a rack and easily transported. SWMA and CWMA recommended this item move forward as voting item in the 2021 Interim meeting. Recommending placing as voting today and move forward for a vote this week.</p> <p>Jan Konijnenburg – NIST OWM - State and industry have a need to use various types of field test standards to evaluate commercial devices installed in the marketplace. NIST OWM recognizes the need to use various standards to test commercial devices and support the use of these standards when test data supports its use. The NIST OWM is also supporting the use of various types of field test standards through the purchase of several meters and the collection of data throughout the U.S. The purpose statement for Items LPG-15.1 (LPG & Anhydrous Ammonia Liquid-Measuring Devices Code) indicates the goal of this items is: “to amend Handbook 44 to allow field reference standard meters to be used to test and place into service dispensers and delivery system flow meters.” The proposed changes in Items LPG-15.1 suggest changes to the test draft criteria for devices covered under this code, which is not necessary to allow field reference standard meters to be used to test and place into service dispensers and delivery system flow meters. Amongst the concerns raised to the S&T Committee over the proposed changes for LPG-15.1 is that it conflicts with existing test draft criteria and confusion over the application of the proposed requirement. As such, given the long debate over multiple iterations of the proposals, OWM proposes that since the purpose of the proposal is to allow field reference standard meters to be used to test and place into service dispensers and delivery system, and the responsibility for allowance of these field test standards are already addressed in the NIST Handbook 44 Fundamental Considerations and Item Block 8 clarifies these responsibilities, that Consideration be given to the proposal in Item Block 8 which clearly states the responsibility for allowance of field standards along with a new proposal to add a general code requirement. (See Item Block 8 of the NIST OWM Analysis for the S&T Annual Meeting)</p> <p>OWM Recommendation OWM recommends that this item be withdrawn and that consideration be given to Item Block 8.</p> <p>Mike Johnson – NE – Supports this item and agrees with Mr. Keilty. Nebraska has had great success over the last 18 years using this method. Nebraska has over 300 mass flow meters and gravimetric testing isn’t practical.</p>

Bob Murnane – Seraphin –

The stated purpose on these proposals to amend Handbook 44 and to allow field standards meters to be used to test and place into service dispensers and delivery system flow meters. The current language adding N.3.2., has nothing to do with the purpose statement nor does have any effect at all on whether meters can be accepted or used as field standards.

Handbook 44 under fundamental considerations already allows for the use of field standards and /or equipment, as approved by the Director. There are already numerous meters in the field being used as standards that have been approved by State Directors under these fundamental considerations.

Note: Seraphin has a proposal, item OTH-22-1 that supports the Directors authority.

What is the reason and justification for N.3.2 when we already have a test draft size in N.3.1?

What data and analysis has been provided regarding the uncertainties associated with the field standard meters and the sizes of the drafts proposed in N.3.2.?

The proposal MFM-15.1., N.3.2 would impose constraints on the capability of the W&M officials to test mass flow meters.

Under the current paragraph N.3., W&M officials can conduct tests at any flow rate for any quantity that is equal to or greater than minimum measured quantity (MMQ) specified by the manufacture of the meter.

Under the proposed N.3.2., the minimum size of the test drafts must be greater than or equal to the quantity delivered in one minute at the flow rate at which the test is being conducted. Depending upon the measurement application and the test equipment available, this could substantially increase the size of the required test drafts for almost all flow rates for mass flow meters.

Example: Recently there was CNG testing performed in Colorado. The test drafts were for 1/3 of the capacity of the test cylinder (as specified in the EPO) and it took less than one minute to complete. In this case the proposed change to the size of the test draft on MFM15.1. would have prevented Weights & Measures officials from conducting the tests.

Weights and Measures officials should be able to test mass flow meters using any test draft size, equal to or greater than the MMQ over the range of flow rates. I did not do an extensive review but I did find six NTEP Certificates of Conformance that would not be able to be tested using the proposed MFM-15.1., N.3.2. What happens to them? If the proposal were adopted with its current purpose statement it could be interrupted that every meter is acceptable for use as a field standard. How do you know which meters are acceptable for use as a field standard and which ones are not? For example, if a meter is brought into the United States from another country, can it be used as a field standard. This proposal will cause confusion for both Weights and Measure officials and testing companies.

Additional Notes:

NIST and Seraphin requested Mike Keilty's participation in a meeting on these items and he declined.

There has been a total of six changes to the wording on these items since they were introduced.

Again, I would like to remind the committee that states are already using meters as field standards and this is permitted by the existing fundamental considerations. There is no need for these proposals. Seraphin Test Measures opposes items LPG-15.1. and MFM-15.1 and ask the committee to withdraw this item from consideration.

Comment: Years on an agenda are not part of criteria for deciding if an item should be made a voting item.

Charlie Stutesman – KS - Regarding Fundamental Considerations: states already have the ability to decide what's allowed. It already falls within The Director's authority, but we have other existing codes in HB44 which reference transfer standards and specifically allowing their use for testing particular devices. The NIST EPOs are still in draft status and are a resource tool only. Flow rate will be more important going forward as gravimetric testing becomes more prevalent. Recommends sending to voting status. Does this only apply to mass flow meters as the standard? NIST stated they are using Coriolis meters. But the decision to use non-mass flow meters as the field standard rests with The Director. This will apply to any meter technology, not just mass flow meters.

Michael Keilty – Endress+Hauser - Other codes in HB44 contain advice on specific test drafts when using transfer standards. These proposals give test draft advice to handle slow flow devices. The EPO for CNG testing uses small containers but the EPO can be changed.

Ivan Hankins – IA – Mr. Hankins has witnessed these tests using these transfer standards at multiple flow rates and drafts. It took much less time. This technology will allow jurisdictions to test at a quicker pace, using less staff. Supports this proposal.

Bob Murnane – Seraphin – Mr. Murnane questioned if the draft size is merely a suggestion.

The CWMA S&T Committee recommends this moves forward as a voting item.

LPG-22.2 **W** **S.2.6. Zero-Set-Back Interlock, for Stationary Customer-Operated Retail Motor-Fuel Devices, Electronic.**

LPG-22.3 **VD** **S.2.5. Zero-Set-Back Interlock., S.2.5.2. Zero -Set-Back Interlock for Stationary Customer -Operated Electronic Retail Motor-Fuel Devices.**

CWMA Report: LPG-22.3

Regional recommendation to NCWM on item status:

- Recommend as a Voting Item on the NCWM agenda
- Recommend as an Information Item on the NCWM agenda
- Recommend as an Assigned Item on the NCWM agenda
(To be developed by an NCWM Task Group or Subcommittee)
- Recommend as a Developing Item on the NCWM agenda
(To be developed by source of the proposal)
- Recommend Withdrawal of the Item from the NCWM agenda
(In the case of new proposals, do not forward this item to NCWM)
- No recommendation from the region to NCWM
(If this is a new proposal, it will not be forwarded to the national committee by this region)

Comments and justification for the regional recommendation to NCWM: *(This will appear in NCWM reports)*

Konrad Pilatowicz – U-Haul International – (submitted comments via email prior to meeting) This proposal was developed by the National Propane Gas Association’s Technology, Standards and Safety Committee, a volunteer organization comprised of 2500+ members, including propane retail marketers and others providing products or services to the propane industry.

Addressing proposed S.2.5.2, motor fuel, within the context of NFPA 58, refers to any container that has the potential to provide propane to fuel an engine. This can include a multitude of DOT cylinders and ASME containers that are not for the propulsion of an automobile. Current mechanical meter technology utilized in a standard propane dispenser for the filling of portable containers, such as those utilized in NFPA 58 for motor fuel applications or those that do power automobiles, are not capable of being equipped with a zero-set-back interlock and the technology will not be potentially available until 2022, per meter manufacturers.

NFPA 58 does not currently explicitly allow the public to refuel its automobiles. All automobiles or other containers must be filled by a specially trained employee. A proposed change has been introduced for consideration in the 2023 20 edition of NFPA 58 that would permit public refueling of automobiles as long as the dispensing system meets specific safety requirements, including a specialized nozzle, and is furnished with visible instructions. Upon the acceptance of this new public refueling allowance the propane industry agrees that Zero-Setback-interlocks are needed. These public self-service automotive dispensing systems will be listed to Underwriters Laboratories Standard 495 and will be dedicated to the filling of motor vehicles.

In view of the above information, existing dispenser systems with mechanical registers that may only be utilized by qualified trained employees should be permitted to continue operations with the existing meter technology and should not be required to include Zero-Set-Back Interlocks. This should include when the dispenser is removed from one location and installed in another, as long as the original meter remains functional. Existing cabinetry and controls utilized in a standard dispenser cabinet generally include non-digital meters and no electronic controls with the exception of a single switch that operates the pump. These simplistic designs are still effective and should not be prohibited from use in future (new) installations in which the transfer process is attended by trained personnel. Limiting the scope of this section will allow attended dispenser operations which are primarily utilized for filling of portable containers to remain consistent in design and construction. Current use of this technology has not

resulted in any known impact to the consumer or over-charge situations. The term “customer-operated” is used in several other locations in Handbook 44.

Michael Keilty – Endress+Hauser – NTEP Measuring Sector – This is a new item that the NTEP Measuring Sector has not reviewed and would like to discuss at their September 2022 meeting.

The CWMA S&T Committee recommends this moves forward as a voting item.

MFM – MASS FLOW METERS

MFM-15.1 ~~V~~ N.3. Test Drafts.

CWMA Report: MFM-15.1
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Micheal Keilty – Endress+Hauser – Mr. Keilty presented calibration data at the 2022 NCWM Interim meeting. No recommendations from NCWM have been released. Recommended a minor change that re-includes the word “meters” because it was confusing how to apply testing requirements. Both items explain the amount of test drafts that differ from other volume standards. Field standard meter provides flexibility for use across many different products and densities. Field Standards are tested against OIML and API standards using gravimetric methods that are NIST traceable. Accuracy and repeatability are long term, it is a maintenance free system with no moving parts. These systems save time and space, contain embedded diagnostics, are easy to use, and easy to maintain. It is easy to train the operator of these systems. NMi has issued a test report on this system. Various setups can be mounted to a rack and easily transported. SWMA and CWMA recommended this item move forward as voting item in the 2021 Interim meeting. Recommending placing as voting today and move forward for a vote this week.</p> <p>Jan Konijnenburg – NIST OWM - State and industry have a need to use various types of field test standards to evaluate commercial devices installed in the marketplace. NIST OWM recognizes the need to use various standards to test commercial devices and support the use of these standards when test data supports its use. The NIST OWM is also supporting the use of field test standards through the purchase of several meters and the collection of data throughout the U.S.</p> <p>The purpose statement for Item MFM-15.1 (Mass Flow Meters Code) indicates the goal of this item is: “to amend Handbook 44 to allow field reference standard meters to be used to test and place into service dispensers and delivery system flow meters.”</p> <p>The proposed changes in Items MFM-15.1 suggest changes to the test draft criteria for devices covered under this code, which is not necessary to allow field reference standard meters to be used to test and place into service dispensers and delivery system flow meters.</p> <p>Amongst the concerns raised to the S&T Committee over the proposed changes for MFM-15.1, is the inability for an inspector or service company to test devices under their conditions of use and as required elsewhere in the MFM code.</p>

As such, given the long debate over multiple iterations of the proposals, OWM proposes that since the purpose of the proposal is to allow field reference standard meters to be used to test and place into service dispensers and delivery system, and the responsibility for allowance of these field test standards are already addressed in the NIST Handbook 44 Fundamental Considerations and Item Block 8 clarifies these responsibilities, that Consideration be given to the proposal in Item Block 8 which clearly states the responsibility for allowance of field standards along with a new proposal to add a general code requirement. (See Item Block 8 of the NIST OWM Analysis for the S&T Annual Meeting)

OWM Recommendation OWM recommends that this item be withdrawn and that consideration be given to Item Block 8.

Mike Johnson – NE – Supports this item and agrees with Mr. Keilty. Nebraska has had great success over the last 18 years using this method. Nebraska has over 300 mass flow meters and gravimetric testing isn't practical.

Bob Murnane – Seraphin –

The stated purpose on these proposals to amend Handbook 44 and to allow field standards meters to be used to test and place into service dispensers and delivery system flow meters. The current language adding N.3.2., has nothing to do with the purpose statement nor does have any effect at all on whether meters can be accepted or used as field standards.

Handbook 44 under fundamental considerations already allows for the use of field standards and /or equipment, as approved by the Director. There are already numerous meters in the field being used as standards that have been approved by State Directors under these fundamental considerations.

Note: Seraphin has a proposal, item OTH-22-1 that supports the Directors authority.

What is the reason and justification for N.3.2 when we already have a test draft size in N.3.1?

What data and analysis has been provided regarding the uncertainties associated with the field standard meters and the sizes of the drafts proposed in N.3.2.?

The proposal MFM-15.1., N.3.2 would impose constraints on the capability of the W&M officials to test mass flow meters.

Under the current paragraph N.3., W&M officials can conduct tests at any flow rate for any quantity that is equal to or greater than minimum measured quantity (MMQ) specified by the manufacture of the meter.

Under the proposed N.3.2., the minimum size of the test drafts must be greater than or equal to the quantity delivered in one minute at the flow rate at which the test is being conducted. Depending upon the measurement application and the test equipment available, this could substantially increase the size of the required test drafts for almost all flow rates for mass flow meters.

Example: Recently there was CNG testing performed in Colorado. The test drafts were for 1/3 of the capacity of the test cylinder (as specified in the EPO) and it took less than one minute to complete. In this case the proposed change to the size of the test draft on MFM15.1. would have prevented Weights & Measures officials from conducting the tests.

Weights and Measures officials should be able to test mass flow meters using any test draft size, equal to or greater than the MMQ over the range of flow rates. I did not do an extensive review but I did find six NTEP Certificates of Conformance that would not be able to be tested using the proposed MFM-15.1., N.3.2. What happens to them? If the proposal were adopted with its current purpose statement it could be interrupted that every meter is acceptable for use as a field standard. How do you know which meters are acceptable for use as a field standard and which ones are not? For example, if a meter is brought into the United States from another country, can it be used as a field standard. This proposal will cause confusion for both Weights and Measure officials and testing companies.

Additional Notes:

NIST and Seraphin requested Mike Keilty's participation in a meeting on these items and he declined.

There has been a total of six changes to the wording on these items since they were introduced.

Again, I would like to remind the committee that states are already using meters as field standards and this is permitted by the existing fundamental considerations. There is no need for these proposals. Seraphin Test Measures opposes items LPG-15.1. and MFM-15.1 and ask the committee to withdraw this item from consideration.

Comment: Years on an agenda are not part of criteria for deciding if an item should be made a voting item.

Charlie Stutesman – KS - Regarding Fundamental Considerations: states already have the ability to decide what's allowed. It already falls within The Director's authority, but we have other existing codes in HB44 which reference transfer standards and specifically allowing their use for testing particular devices. The NIST EPOs are still in draft

status and are a resource tool only. Flow rate will be more important going forward as gravimetric testing becomes more prevalent. Recommends sending to voting status. Does this only apply to mass flow meters as the standard? NIST stated they are using Coriolis meters. But the decision to use non-mass flow meters as the field standard rests with The Director. This will apply to any meter technology, not just mass flow meters.

Michael Keilty – Endress+Hauser - Other codes in HB44 contain advice on specific test drafts when using transfer standards. These proposals give test draft advice to handle slow flow devices. The EPO for CNG testing uses small containers but the EPO can be changed.

Ivan Hankins – IA – Mr. Hankins has witnessed these tests using these transfer standards at multiple flow rates and drafts. It took much less time. This technology will allow jurisdictions to test at a quicker pace, using less staff. Supports this proposal.

Bob Murnane – Seraphin – Mr. Murnane questioned if the draft size is merely a suggestion.

The CWMA S&T Committee recommends this moves forward as a voting item.

MF22-1 V Table T.2. Accuracy Classes and Tolerances for Mass Flow Meters.

CWMA Report: MF22-1
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Michael Keilty – Endress+Hauser – The proposed table T.2. mentions hydrogen. Hydrogen is a separate section. Would this apply to hydrogen mixed with CNG? Asked for explanation from NIST.</p> <p>Lisa Warfield – NIST OWM – NIST will provide clarification regarding the question about hydrogen mixing with CNG.</p> <p>The CWMA S&T Committee recommends this moves forward as a voting item.</p>

EVF – ELECTRIC VEHICLE FUELING SYSTEMS

EVF-21.1 D A.1. General

CWMA Report: EVF-21.1
<p>Regional recommendation to NCWM on item status:</p>

<input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Francesca Wahl – Tesla - Working with NIST EVFE Subgroup to revamp proposal and focusing on DC. Wants to remain development status. Supports current HB44 3.40 tentative code acceptance in the very near future.</p> <p>The CWMA S&T Committee recommends this item remain as a developing item per the request of the submitter.</p>

EVF-20.1 V S.1.3.2. EVSE Value of the Smallest Unit.

<p>CWMA Report: EVF-20.1</p>
<p>Regional recommendation to NCWM on item status:</p> <input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>No comments from the floor.</p> <p>The CWMA S&T Committee recommends this moves forward as a voting item.</p>

EVF-21.5 D T.2. Load Test Tolerances.

<p>CWMA Report: EVF-21.5</p>
<p>Regional recommendation to NCWM on item status:</p> <input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i>

<input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i> Keith Bradley – Electrify America - Thanks to NIST for forming the work group. Industry has worked hard to determine compliance for existing devices. DC fast chargers already installed will have a larger retroactive tolerance. Recommended to remain as developing. Francesca Wahl – Tesla - Minor modifications outside of tolerances will still be needed in order for manufacturers to comply with changes to devices already in commercial use. Charlie Stutesman – KS – HB44 3.40 tentative code has been in place for 7 years. It needs to become active and enforceable. The CWMA S&T Committee recommends this item remain as a developing item per the request of the submitter.

TXI – TAXIMETERS

TXI-22.1 V Table S.5. Categories of Device and Methods of Sealing

CWMA Report: TXI-22.1
Regional recommendation to NCWM on item status: <input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i> No comments from the floor. The CWMA S&T Committee recommends this moves forward as a voting item.

GMA – GRAIN MOISTURE METERS 5.56 (A)

GMA-19.1 D Table T.2.1. Acceptance and Maintenance Tolerances Air Oven Method for All Grains and Oil Seeds.

CWMA Report: GMA-19.1

<p>Regional recommendation to NCWM on item status:</p> <p><input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></p> <p><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></p> <p><input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i></p> <p><input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i></p>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Doug Musick – KS - Some feel that rice won't be able to meet the tighter tolerance. Supports moving to voting. No data has been submitted regarding the concern, so they can do this at a later date if desired.</p> <p>The CWMA S&T Committee recommends this moves forward as a voting item.</p>

MDM – MULTIPLE DIMENSION MEASURING DEVICES

MDM-22.1 WD S.1.7. Minimum Measurement.

<p>CWMA Report: MDM-22.1</p>	
<p>Regional recommendation to NCWM on item status:</p> <p><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></p> <p><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></p> <p><input checked="" type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i></p> <p><input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i></p>	
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Russ Vires – SMA - The SMA opposes this item. The justification provided by the submitter does not adequately identify the issue this item is attempting to resolve, and why mobile tape-based MDMD devices should be exempted compared to all other MDMD devices. The SMA recommends that the submitter work with the MDMD Workgroup to develop a suitable solution to this issue.</p> <p>The CWMA S&T Committee recommends this item to be withdrawn.</p>	

OTH – OTHER ITEMS

OTH-16.1 D Electric Watthour Meters Code under Development

<p>CWMA Report: OTH-16.1</p>	
-------------------------------------	--

<p>Regional recommendation to NCWM on item status:</p> <p><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></p> <p><input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></p> <p><input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i></p> <p><input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i></p>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Lisa Warfield – NIST – An extensive group of industry and regulators are working to understand each others’ roles as this code develops. The NIST work group is quite active and making progress.</p> <p>The CWMA S&T Committee recommends this item to remain as developing.</p>

OTH-22.2 V Appendix D – Definitions: face

<p>CWMA Report: OTH-22.2</p>	
<p>Regional recommendation to NCWM on item status:</p> <p><input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></p> <p><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></p> <p><input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i></p> <p><input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i></p>	
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>No comment from the floor.</p> <p>The CWMA S&T Committee recommends this moves forward as a voting item.</p>	

ITEM BLOCK 1 (B1) TERMINOLOGY FOR TESTING STANDARDS

- B1: SCL-18.1 W N.2. Verification (Testing) Standards**
- B1: ABW-18.1 W N.2. Verification (Testing) Standards**
- B1: AWS-18.1 W N.1.3. Verification (Testing) Standards, N.3.1. Official Tests, UR.4. Testing Standards**
- B1: CLM-18.1 W N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards**
- B1: CDL-18.1 W N.3.2. Transfer Standard Test, T.3. On Tests Using Transfer Standards**
- B1: HGM-18.1 W N.4.1. Master Meter (Transfer) Standard Test, T.4. Tolerance Application on Test Using Transfer Standard Test Method**
- B1: GMA-18.1 W 5.56(a): N.1.1. Air Oven Reference Method Transfer Standards, N.1.3. Meter to Like-Type Meter Method Transfer Standards and 5.56(b): N.1.1. Transfer Standards, T. Tolerances¹**
- B1: LVS-18.1 W N.2. Testing Standards**
- B1: OTH-18.1 W Appendix A: Fundamental Considerations, 3.2. Tolerances for Standards, 3.3. Accuracy of Standards**
- B1: OTH-18.2 W Appendix D – Definitions: fifth-wheel, official grain samples, transfer standard and Standard, Field**

BLOCK 2 ITEMS (B2) DEFINE TRUE VALUE FOR USE IN ERROR CALCULATIONS

- B2: SCL-20.3 A S.5.4. Relationship of Minimum Load Cell Verification Interval to the Scale Division**
- B2: SCL-20.4 A Table 3. Parameters of Accuracy Classes.**
- B2: SCL-20.5 A Table S.6.3.a. Marking Requirements, Note 3.**
- B2: SCL-20.6 A T.N.1.2. Accuracy Classes and T.N.1.3. Scale Division.**
- B2: SCL-20.7 A Table 7. Maintenance Tolerances**
- B2: SCL-20.8 A Table 8. Recommended Minimum Load**

CWMA Report: B2: SCL-20.3
CWMA Report: B2: SCL-20.4
CWMA Report: B2: SCL-20.5
CWMA Report: B2: SCL-20.6
CWMA Report: B2: SCL-20.7
CWMA Report: B2: SCL-20.8
<p>Regional recommendation to NCWM on item status:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input checked="" type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Russ Vires – SMA – <u>B2. SCL-20.3</u>- The SMA supports the further development of this item and the work of the Verification Scale Division (e) Task Group. Recommendation: The SMA would also like to encourage the use of the terminology “Verification Interval” for “e” and “Scale Division” for “d” in every instance that it appears in this item.</p> <p>Loren Minich – KS - Items shown under consideration are not the items the task group has submitted. The SMA recommendations conflict with current task group verbiage.</p> <p>Doug Musick – KS – This proposal got put into the National Committee Agenda Appendix for some reason. Hope to rebuild the task group and get cleaned up before 2022 national. “verification interval” should be “verification scale division” (e), and “displayed scale division” (d). Having (d) and (e) in the same original table was confusing to inspectors. The current task group changes won’t be in Pub 16 for the 2022 National meeting.</p>

Loren Minich – KS - Prefers the S&T committee to evaluate the Appendix since it’s more up to date.

Russ Vires – SMA –Provides the following recommendations on the specific items:

B2:SCL-20.4- The SMA recommends the following change to Table 3, Footnote 1: *Class I and II scales may be designed ~~such that the verification scale division~~ verification interval e does not be equal to the scale division d.*

B2: SCL20.6- The SMA recommends the following change: “... except that (d) is not used in reference...”

B2: SCL-20.7- The SMA recommends the following change: **Table 6. Maintenance Tolerances**

B2: SCL-20.8- The SMA recommends striking the following language from the submitter’s proposal: ~~Scales manufacturers are permitted to design scales where the value a verification scale division e differs from the displayed scale division d.~~ When taken with the SMA’s recommendation for SCL-20.4, this will avoid duplication in the HB44 code.

The CWMA S&T Committee recommends this item remain as assigned.

BLOCK 3 ITEMS (B3) TOLERANCES FOR DISTANCE TESTING IN TAXIMETERS AND TRANSPORTATION NETWORK SYSTEMS

B3: TXI-20.1 ~~VD~~ T. Tolerances

CWMA Report: B3: TXI-20.1

Regional recommendation to NCWM on item status:

- Recommend as a Voting Item on the NCWM agenda
- Recommend as an Information Item on the NCWM agenda
- Recommend as an Assigned Item on the NCWM agenda
(To be developed by an NCWM Task Group or Subcommittee)
- Recommend as a Developing Item on the NCWM agenda
(To be developed by source of the proposal)
- Recommend Withdrawal of the Item from the NCWM agenda
(In the case of new proposals, do not forward this item to NCWM)
- No recommendation from the region to NCWM
(If this is a new proposal, it will not be forwarded to the national committee by this region)

B3: TNS-20.1 ~~WD~~ T. Tolerances

CWMA Report: B3: TXI-20.1

Regional recommendation to NCWM on item status:

- Recommend as a Voting Item on the NCWM agenda
- Recommend as an Information Item on the NCWM agenda
- Recommend as an Assigned Item on the NCWM agenda
(To be developed by an NCWM Task Group or Subcommittee)
- Recommend as a Developing Item on the NCWM agenda
(To be developed by source of the proposal)
- Recommend Withdrawal of the Item from the NCWM agenda
(In the case of new proposals, do not forward this item to NCWM)
- No recommendation from the region to NCWM

(If this is a new proposal, it will not be forwarded to the national committee by this region)

Comments and justification for the regional recommendation to NCWM: (This will appear in NCWM reports)

Charlie Stutesman – KS – Interested to know why the tolerance isn't consistent with underregistration and overregistration.

The submitter of this item provided an updated proposal on March 23, 2022, which is posted on the NCWM website. This update clarified the tolerances for TXI-20.1 and recommended withdrawal of TNS-20.1.

B3: TXI-20.1

The CWMA S&T Committee recommends withdrawal of TNS-20.1 per the submitter's request. The Committee recommends that TXI-20.1 proceed to voting status as presented in the March 23, 2022, updated proposal:

T.1. Tolerance Values.

T.1.1. On Distance Tests. – Maintenance and acceptance tolerances for taximeters shall be as follows:

T.1.1.1 Meters Using Distance generated from sources physically connected to the vehicle (e.g OBD sensor).

- (a) On Overregistration: 1 % of the interval under test.
- (b) On Underregistration: 4 % of the interval under test, with an added tolerance of 30 m or 100 ft whenever the initial interval is included in the interval under test.

T.1.1.2 Meters Using Distance generated from sources not physically connected to the vehicle (e.g navigation satellite system such as GPS and /or other location services).

- (a) On Overregistration: 2.5 %
- (b) On Underregistration: 2.5 %

BLOCK 4 ITEMS (B4) ELECTRONICALLY CAPTURED TICKETS OR RECEIPTS

- B4: GEN-21.2** D G-S.5.6. Recorded Representations.
- B4: LMD-21.2** D S.1.6.5. Money Value Computations., UR.3. Use of a Device.
- B4: VTM-21.1** D S.1.1. Primary Elements., UR.2. User Requirements
- B4: LPG-21.1** D S.1.1. Primary Elements., UR.2. User Requirements
- B4: CLM-21.1** D ~~S.1.4.1. Printed Ticket~~Recorded Representation., UR.2.6.3. ~~Printed Ticket~~Recorded Representation
- B4: MLK-21.1** D ~~S.1.4.2. Printed Ticket~~ Recorded Representation., UR.2.6.3. ~~Printed Ticket~~Recorded Representation.
- B4: MFM-21.2** D ~~S.6. Printer~~Recorded Representations., UR.2.6. ~~Ticket Printer, Customer Ticket,~~ Recorded Representation., UR.3.4. ~~Printed Ticket.~~ Recorded Representation.
- B4: CDL-21.1** D ~~S.1.4.1. Printed Ticket~~Recorded Representations., UR.2.4.2. ~~Tickets or Invoices.~~ Recorded Representation.
- B4: HGM-21.1** D S.2.6. Recorded Representations, Point of Sale Systems., S.6. Printer. Recording Element., UR.3.2. Vehicle-mounted Measuring Systems Ticket Printer Recording Element., UR.3.3. Printed Ticket. Recorded Representation.
- B4: OTH-21.2** D Appendix D - Definitions.: recorded representations, recording element.

CWMA Report: B4: GEN-21.2
CWMA Report: B4: LMD-21.2
CWMA Report: B4: VTM-21.1
CWMA Report: B4: LPG-21.1
CWMA Report: B4: CLM-21.1
CWMA Report: B4: MFM-21.2
CWMA Report: B4: MLK-21.1
CWMA Report: B4: CDL-21.1
CWMA Report: B4: HGM-21.1
CWMA Report: B4: OTH-21.2

<p>Regional recommendation to NCWM on item status:</p> <p><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</p> <p><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></p> <p><input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></p> <p><input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i></p> <p><input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i></p>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Charlie Stutesman – KS – Should remain as developing. The item will be ready to present for status upgrade during the 2023 Interim meeting, or will be withdrawn.</p> <p>Russ Vires – SMA - The SMA supports this item. The SMA recognizes the importance of providing flexible options for recorded representations to the consumer.</p> <p>The CWMA S&T Committee recommends this item remain as developing per the submitter’s request.</p>

ITEM BLOCK 5 (B5) DEFINE “FIELD REFERENCE STANDARD”

B5: CLM-18.2 W N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards

B5: CDL-18.2 W N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards

B5: HGM-18.2 W N.4.1. Master Meter (Transfer) Standard Test and T.4. Tolerance Application on Test Using Transfer Standard Test Method

B5: OTH-18.3 W Appendix D – Definitions: field reference standard meter and transfer standard

BLOCK 6 ITEMS (B6) COMMERCIAL AND LAW ENFORCEMENT, AXLE AND AXLE GROUP WEIGHTS

B6: SCL-22.1 D Recorded Representation of Axle or Axle Group Weights

B6: SCL-22.3 D UR.3.3. Single-Draft Vehicle Weighing., and UR.3.4. Axle and Axle Group Weight Values.

<p>CWMA Report: B6: SCL-22.1</p>
<p>CWMA Report: B6: SCL-22.3</p>
<p>Regional recommendation to NCWM on item status:</p> <p><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</p>

<input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<p>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></p> <p>Jan Konijnenburg – NIST OWM – This proposal has been amended and items are in developing status. Soliciting additional feedback from the community for each item in Block 6.</p> <p>Russ Vires – SMA - The SMA recommends that Block 6 be broken apart into two (2) individual items. Each of these items deals with a separate topic that needs to be discussed individually.</p> <p><u>Regarding B6: SCL-22.1:</u> The SMA supports this item with the following changes: <u>“S.1.14.1. Axle and Axle Group Loads. - All recorded representations of the different axle and axle group loads of a vehicle when weighed in a single draft on a multi-independent platform vehicle scale system shall be identified by providing indication of either:”</u></p> <p>Identifying the recorded weight values for the axle/axle groups as required in S.1.14.1.(a) is only necessary when the vehicle can be weighed in a single draft.</p> <p>Russ Vires – SMA - <u>Regarding B6: SCL-22.3-</u> The SMA supports the intent of this item, and believes that additional work is necessary.</p> <p>The CWMA S&T Committee recommends this item remain in developing status per the submitter’s request.</p>

BLOCK 7 ITEMS (B7) TOLERANCES ON TESTS USING TRANSFER STANDARDS

B7: CLM-22.1 V ~~Ø~~ T.3. On Tests Using Type 2 Transfer Standards.

B7: CDL-22.1 V ~~Ø~~ T.3. On Tests Using Type 2 Transfer Standards.

B7: HGM-22.1 V ~~Ø~~ T.4. Tolerance Application on Tests Using Type 2 Transfer Standard Test Method.

CWMA Report: B7: CLM-22.1
CWMA Report: B7: CDL-22.1
CWMA Report: B7: HGM-22.1
<p>Regional recommendation to NCWM on item status:</p> <input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i>

<input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i> Bob Murnane – Seraphin - Remain developing, can't move to voting item unless OTH-22.1 does move to voting. The CWMA S&T Committee recommends this moves forward as a voting item, with the understanding that Block 8 must first pass.

BLOCK 8 ITEMS (B8) TOLERANCES ON TESTS USING TRANSFER STANDARDS, APPENDIX A - TOLERANCES FOR STADARDS, AND APPENDIX D – FIELD STANARDS AND TRANSFER STANDARDS

B8: GEN-19.1 **V** ~~**D**~~ **G-T.5. Tolerances on Tests When Transfer Standards are Used., Appendix A, Section 3.2. Tolerances for Standards., and Appendix D – Definitions: standards, field., transfer standard. and standard, transfer.**

B8: OTH-22.1 **V** ~~**D**~~ **Appendix A: Fundamental Considerations, 3. Testing Apparatus**

CWMA Report: B8: GEN-19.1
CWMA Report: B8: OTH-22.1
Regional recommendation to NCWM on item status: <input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda <input type="checkbox"/> Recommend as an Information Item on the NCWM agenda <input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i> <input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i> <input type="checkbox"/> Recommend Withdrawal of the Item from the NCWM agenda <i>(In the case of new proposals, do not forward this item to NCWM)</i> <input type="checkbox"/> No recommendation from the region to NCWM <i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i> Bob Murnane – Seraphin - Transfer standard is already included in HB44 but it isn't defined. This doesn't preclude the ability for The Director to approve transfer standards. HB44 doesn't specify the frequency of testing intervals; cast iron vs stainless steel weights as an example. G.UR.4.1 already states the owner or operator must maintain the equipment, which includes the accuracy. States have different interval requirements. Recommends moving to a voting item. Jan Konijnenburg – NIST OWM - State and industry have a need to use various types of test standards to evaluate commercial devices installed in the marketplace. NIST OWM recognizes the need to use various standards to test commercial devices and support the use of these standards when test data supports its use.

Block 8 clarifies the use and definition of three types of standards to be included in NIST HB 44: (1) Fields Standards, (2) Type 1 Transfer Standards and (3) Type 2 Transfer Standards; it provides an equation that should be used to calculate the tolerances when Type 2 transfer standards are used; provides definitions for Field Standards, Type 1 Transfer Standards and Type 2 Transfer Standards, and provides clarification that the State Director has the authority to approve the use of standard and that specific requirements in NIST HB 44 code are not necessary to approve a standard for use.

Two items, LPG-15.1 and MFM-15.1 in the Interim Meeting Report (Publication 16), include a purpose statement that the proposals are added to allow field standard meters to be used to test and place into service dispensers and delivery system flow meters. Block 8 items clarify what has always been recognized in NIST HB 44 concerning the responsibility for acceptance of a standard and notes that specific code changes are not necessary for a field standard to be adequate for use.

In addition to the changes in Block 8, a new form 15 for the 2023 cycle which is not included in the 2022 Publication 16 and has not been addressed separately in the 2022 NIST OWM Technical Analysis but has been circulated to the Spring 2022 Regional Associations (NEWMA and CWMA)

This new Form 15 adds a General Code requirement so that rather than revising a specific code in Handbook 44 every time a new field or transfer standard is proposed or developed, an overall statement in the General Code recognizes the use of other field and transfer standards that meet the requirements for use as field or transfer standards. The proposal is as follows:

G-N.3. Test Methods. – Permissible test methods for verifying compliance of weighing and measuring systems with the provisions of the General Code and Specific Codes include, but are not limited to, test methods and apparatus that have been approved by the State Director of weights and measures as outlined in Appendix A - Fundamental Considerations, Section 3. Testing Apparatus.

NIST OWM also observed that the definitions in Block 8 should include appropriate references to the NIST HB 44 codes.

OWM Recommendation: The submitters agree that these items, GEN-19.1 and OTH-22.1 are fully developed and requested that this S&T committee consider that Block 8 item be a Voting Item in 2023.

Charlie Stutesman – KS – GEN-19.1 line 29 – strike “as determined by the Director”
“short term” and “extended term” are ambiguous phrases.

Loren Minich – KS – Page 277 line 41 regarding a Type 2 transfer standard not being stable or valid over extended time, but OTH-22.1 page 279 line 28 says the Type 2 standard must be stable and valid. Mr. Minich would like to keep as developing.

Doug Musick – KS - Page 277 definitions: having the 1/3 rule in the code (and not in an appendix) is helpful. Suggested that Type 2 should go away and just have a single “transfer standard” definition.

Michael Keilty – Endress+Hauser – “Short term”, “extended period of time”, “short period of time”, “stable”, “valid” are arbitrary; who defines this? Who is going to establish this time period and qualifications of devices? Are we establishing a program for that? API chapter 4.8 dictates 5 year calibration intervals for small volume provers, for example.

The CWMA S&T Committee recommends this moves forward as a voting item.

Russ Vires – SMA - Supports OTH-22.1 as developing. Stakeholders need to review and provide input to the submitter.

The CWMA S&T Committee recommends this moves forward as a voting item.

Mr. Charles Stutesman, Kansas | Committee Chair
Mr. Daniel Walker, Ohio | Member
Mr. Brett Willhite, Minnesota | Member
Mr. Brandon Wahlfeldt | North Dakota |Member
Mr. Nick Owens, Stark County, Ohio | NCWM Representative

Specifications and Tolerances Committee