

## **CWMA Specifications and Tolerances (S&T) Committee 2020 Interim Meeting Report**

Mr. Jason Smith, Committee Chair  
South Dakota

### **INTRODUCTION**

The Specifications and Tolerances (S&T) Committee (hereinafter referred to as “Committee”) submits its Report to the Central Weights and Measures Association (CWMA). The Report consists of the CWMA Agenda (NCWM Carryover and NEW items) and this Addendum. Page numbers in the tables below refer to pages in this Addendum. Suggested revisions to the handbook 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**.

Presented below is a list of agenda items considered by the CWMA and its recommendations to the NCWM Specifications and Tolerances Committee.

---

**Subject Series List**

---

NIST 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**

<b>Reference Key</b>	<b>Title of Item</b>	<b>S&amp;T Page</b>
<b>GEN – GENERAL CODE ..... 6</b>		
GEN-20.1	W G-T.3. Application and Appendix D – Definitions: true value .....	6
GEN-21.1	D Use-for-Fee Vehicle and Axle-Load Scales .....	6
GEN-21.3	G-UR.4.1. Maintenance of Equipment.....	7
<b>BLOCK 2 ITEMS (B2) A DEFINE TRUE VALUE FOR USE IN ERROR CALCULATIONS ..... 7</b>		
<b>SCL – SCALES ..... 7</b>		
SCL-16.1	W Sections Throughout the Code to Include Provisions for Commercial Weigh-in-Motion Vehicle Scale Systems.....	7
SCL-21.1	W S.1.1. Zero Indication .....	8
SCL-20.9	D S.1.1.3. Zero Indication, Load Receiving Elements Separate from Weighing Elements. and Appendix D – Definitions: no load reference value .....	8
SCL-20.10	V S.1.2.2.2. Class I and II Scales Used in Direct Sale and S.1.2.2.3. Deviation of a “d” Resolution. ....	9
SCL-17.1	V S.1.8.5. Recorded Representations, Point of Sale Systems .....	9
SCL-20.13	V N.1.5. Discrimination Test. ....	9
SCL-19.2	V UR.5. Coupled-in-Motion Railroad Weighing Systems. ....	10
SCL-20.12	D Multiple Sections to Add Vehicle Weigh-in-Motion to the Code and Appendix D – Definitions; vehicle scale and weigh-in-motion vehicle scale.....	10
<b>ABW – AUTOMATIC BULK WEIGHING SYSTEMS..... 11</b>		
ABW-16.1	D A. Application, S Specifications, N. Notes, UR. User Requirements and Appendix D – Definitions: automatic bulk weighing system. ....	11
<b>BLOCK 4 ITEMS (B4) V ELECTRONICALLY CAPTURED TICKETS OR RECEIPTS ..... 11</b>		
<b>BLOCK 1 ITEMS (B1) A TERMINOLOGY FOR TESTING STANDARDS (VERIFICATION STANDARDS, FIELD STANDARDS, TRANSFER STANDARDS, FIELD REFERENCE STANDARDS, ETC.), TOLERANCES ON TESTS WHEN TRANSFER STANDARDS ARE USED, MINIMUM QUANTITY FOR FIELD REFERENCE STANDARD METER TESTS ..... 12</b>		
<b>LMD – LIQUID MEASURING DEVICES ..... 12</b>		
LMD-20.2	V S.1.6.10. Automatic Timeout – Pay-at-pump Retail Motor-Fuel Devices. ....	12
LMD-19.1	V UR.4.2. Security for Retail Motor-Fuel Devices.....	13
<b>BLOCK 5 ITEMS (B5) D CATEGORY 3 METHODS OF SEALING ..... 13</b>		
<b>VTM – VEHICLE TANK METERS ..... 14</b>		
VTM-18.1	D 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. ....	14
VTM-20.1	D S.3.1. Diversion of Measured Liquid. ....	14
VTM-20.2	A Table T.2. Tolerances for Vehicle Mounted Milk Meters.....	15
<b>LPG – LPG AND ANHYDROUS AMMONIA LIQUID-MEASURING DEVICES..... 15</b>		
LPG-20.1	V S.2.5. Zero-Set-Back Interlock and S.2.6. Automatic Timeout.....	15
<b>WTR – WATER METERS 16</b>		
WTR-20.2	V S.1.1.4. Advancement of Indicating and Recording Elements. ....	16
WTR-21.1	NR S.2.2. <del>Batching Measuring Systems</del> Air/Vapor Elimination. ....	16
WTR-20.1	V S.3.2. Meter size and Directional Flow Marking Information.....	17
<b>MFM – MASS FLOW METERS ..... 17</b>		
MFM-20.1	V S.1.3.3. Maximum Value of Quantity Divisions. ....	17

MFM-21.1	D	UR.3.3. Ticket Printer: Customer Ticket.....	18
<b>EVF – ELECTRIC VEHICLE FUELING SYSTEMS .....</b>			<b>18</b>
EVF-21.1	D	A.1. General .....	18
EVF-21.2	W	A.2. Exceptions .....	19
EVF-20.1	D	S.1.3.2. EVSE Value of the Smallest Unit. ....	19
EVF-21.3	D	S.1.2. EVSE Indicating Elements, S.2.4.1. Unit Price, S.2.5. EVSE Money-Value Computations., S.2.7. Indication of Delivery .....	20
EVF-21.4	V	S.3.3. Provision for Sealing.....	20
EVF-19.1	V	S.3.5. Temperature Range for System Components. and S.5.2. EVSE Identification and Marking Requirements .....	21
EVF-21.5	D	T.2. Load Test Tolerances.....	21
EVF-21.6	V	Definitions: minimum measured quantity (MMQ).....	22
EVF-20.2	V	Definitions: submeter .....	22
<b>TXI – TAXIMETERS .....</b>			<b>23</b>
See Block 3 Items: Tolerances for Distance Testing.....			23
<b>TIM – TIMING DEVICES CODE.....</b>			<b>23</b>
TIM-20.1	V	S.1.1.3. Value of Smallest Unit. ....	23
<b>GMA – GRAIN MOISTURE METERS 5.56 (A) .....</b>			<b>23</b>
GMA-20.1	V	S.2.5. Provisions for Sealing. ....	23
GMA-19.1	D	Table T.2.1. Acceptance and Maintenance Tolerances Air Oven Method for All Grains and Oil Seeds.....	24
<b>MDM – MULTIPLE DIMENSION MEASURING DEVICES.....</b>			<b>24</b>
MDM-20.1	V	S.1.3. Negative Values, S.1.6. Customer Indications and Recorded Representations, S.1.7. Minimum Measurement, S.1.8. Indications Below Minimum and Above Maximum, S.2. Design of Zero <del>Tare</del> Dimensional Offset and Appendix D – Definitions: dimensional offset .....	24
<b>BLOCK 3 ITEMS (B3) D TOLERANCES FOR DISTANCE TESTING IN TAXIMETERS AND TRANSPORTATION NETWORK SYSTEMS .....</b>			<b>25</b>
<b>OTH – OTHER ITEMS .....</b>			<b>25</b>
OTH-16.1	D	Electric Watthour Meters Code under Development.....	25
OTH-21.1	V	Appendix A – 2.1. Acceptance and Maintenance Tolerances. ....	26
OTH-20.1		Appendix D – Definitions: submeter (Now Item EVF-20.2) .....	26



**Table B**  
**Glossary of Acronyms and Terms**

<b>Acronym</b>	<b>Term</b>	<b>Acronym</b>	<b>Term</b>
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-20.1     D   G-T.3. Application and Appendix D – Definitions: true value**

GEN-20.1
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard from numerous regulatory officials questioning that if the purpose of this item is to provide clarity, it seems to provide more confusion. We feel this item is not a necessary addition to the handbook, and recommend this item be withdrawn.</p>

**GEN-21.1                    Use-for-Fee Vehicle and Axle-Load Scales**

GEN-21.1
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee received comments from both regulatory officials and industry representatives discussing the numerous issues that this item has brought to light. The developer requested this item be given a developing status. We agree with the developer and recommend a developing status.</p>

**GEN-21.3            G-UR.4.1. Maintenance of Equipment**

**This item was not submitted to your region.**

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

<b>ITEM BLOCK 2</b>
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><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></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard an update from Doug Musick (KS &amp; Chair of Verification Scale Division (e) Task Group) on the progress of this item. The committee looks forward to the work of the task group.</p>

**SCL – SCALES**

**SCL-16.1            A    Sections Throughout the Code to Include Provisions for Commercial Weigh-in-Motion Vehicle Scale Systems**

<b>SCL-16.1</b>
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard from both regulatory officials and industry representatives requesting this item be withdrawn for lack of progress. Loren Minnich (KS &amp; NCWM S&amp;T Chair) advised that Rinstrum, Inc. has been</p>

given a deadline of December 2020 to produce the data that has been requested by the WIM Task Group. We feel that due to a lack of progress on this item, we recommend the item be withdrawn.

**SCL-21.1                      S.1.1. Zero Indication**

<b>SCL-21.1</b>
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee received comments from both regulatory officials and industry representatives that this item is not a needed addition to the handbook and recommended this item be withdrawn. We agree with the comments received, and recommend this item be withdrawn.</p>

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

<b>SCL-20.9</b>
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard from the developer of this item, who requested this item remain developing to allow more time for input from all parties.</p>



**SCL-20.10 V S.1.2.2.2. Class I and II Scales Used in Direct Sale and S.1.2.2.3. Deviation of a “d” Resolution.**

SCL-20.10
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard comments from the SMA and NIST OWM. The committee recommends the item moving forward as a voting item with the proposed amendments by the NCWM S&amp;T Committee.</p>

**SCL-17.1 V S.1.8.5. Recorded Representations, Point of Sale Systems**

SCL-17.1
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard comments in opposition from the SMA. Many regulatory officials made comments in support of the item. The committee recommends the item moving forward as a voting item with the proposed amendments by the NCWM S&amp;T Committee.</p>

**SCL-20.13 V N.1.5. Discrimination Test.**

SCL-20.13
<p><b>Regional recommendation to NCWM on item status:</b></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><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard comments in support of this item moving forward as a voting item from the SMA and NIST OWM. Charlie Stutesman (KS) made comments of concern with this item opening the door to future exceptions from the discrimination test. The committee recommends this item moving forward as a voting item.</p>

**SCL-19.2 V UR.5. Coupled-in-Motion Railroad Weighing Systems.**

<b>SCL-19.2</b>
<p><b>Regional recommendation to NCWM on item status:</b></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><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard only comments in opposition to this item from the SMA, NIST OWM and state regulators. The committee feels this item, with the proposed amendments by the NCWM S&amp;T Committee, is developed to the extent that it can be and recommends this item move forward as a voting item.</p>

**SCL-20.12 D Multiple Sections to Add Vehicle Weigh-in-Motion to the Code and Appendix D – Definitions; vehicle scale and weigh-in-motion vehicle scale.**

<b>SCL-20.12</b>
<p><b>Regional recommendation to NCWM on item status:</b></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

<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><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>Russell Vires (Mettler-Toledo, LLC) gave a presentation to the S&amp;T committee on this item. The presenter answered a number of questions from the committee and from both regulatory officials and industry representatives on this item. A concern that was highlighted questioned if placing the reference scale into high resolution, the reference scale may not comply with the N max requirement. Another concern of regulatory officials was the need to test the reference scale to used capacity with known field standards. This could require an additional burden to both the regulatory officials and the device owners. Russell Vires commented that this item was still being developed with the goal of presenting a final version at the NCWM meeting in January. Not having seen the final version of the item, the committee recommends this item remain a developing item.</p>

**ABW – AUTOMATIC BULK WEIGHING SYSTEMS**

**ABW-16.1 D A. Application, S Specifications, N. Notes, UR. User Requirements and Appendix D – Definitions: automatic bulk weighing system.**

<p><b>ABW-16.1</b></p>
<p><b>Regional recommendation to NCWM on item status:</b></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><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>Loren Minnich (KS) the developer of the item gave an update to the item to the S&amp;T committee and requested the item remain developing to allow for more time to fully develop the item. We ask the NCWM S&amp;T Chair to give the developer a deadline of one year to present substantial progress on this item or withdraw it.</p>

**BLOCK 4 ITEMS (B4) ELECTRONICALLY CAPTURED TICKETS OR RECEIPTS**

<p><b>ITEM BLOCK 4</b></p>
<p><b>Regional recommendation to NCWM on item status:</b></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>

<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i> Charlie Stutesman (KS) the developer of the item gave a presentation to the S&T committee updating the current changes on the item. The committee received comments from both regulatory officials and industry representatives expressing a need for this item. The committee feels this item is fully developed and we recommend this item move forward as a voting item.

**BLOCK 1 ITEMS (B1) TERMINOLOGY FOR TESTING STANDARDS (VERIFICATION STANDARDS, FIELD STANDARDS, TRANSFER STANDARDS, FIELD REFERENCE STANDARDS, ETC.,) TOLERANCES ON TESTS WHEN TRANSFER STANDARDS ARE USED, MINIMUM QUANTITY FOR FIELD REFERENCE STANDARD METER TESTS**

<b>ITEM BLOCK 1</b>
<b>Regional recommendation to NCWM on item status:</b> <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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i> G. Diane Lee (NIST OWM), a member of the Field Standards Task Group gave an update of the progress of this item to the S&T committee. We look forward to the work of the task group.

**LMD – LIQUID MEASURING DEVICES**

**LMD-20.2 V S.1.6.10. Automatic Timeout – Pay-at-pump Retail Motor-Fuel Devices.**

<b>LMD-20.2</b>
<b>Regional recommendation to NCWM on item status:</b>

<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>
<b>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></b>
<p>The S&amp;T committee heard comments in support of this item from NIST OWM and state regulatory officials. We feel this item is fully developed and recommend this item move forward as a voting item.</p>

**LMD-19.1 V UR.4.2. Security for Retail Motor-Fuel Devices.**

<b>LMD-19.1</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></b>
<p>The only comments that the S&amp;T committee heard during open hearings on this item were from NIST OWM, who expressed concerns as to how this item would be enforced and what added burdens this item would place on device owners. The committee would like to thank the skimmer task group for the work that they put into this item. We feel this item is fully developed and recommend that it move forward as a voting item.</p>

**BLOCK 5 ITEMS (B5) CATEGORY 3 METHODS OF SEALING**

<b>ITEM BLOCK 5</b>
<b>Regional recommendation to NCWM on item status:</b>
<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

<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><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>G. Diane Lee (NIST OWM) advised the S&amp;T committee that the developers of both of these items are working together to present one item in the future. We recommend this item remain developing and look forward to collaborative results to come.</p>

**VTM – VEHICLE TANK METERS**

**VTM-18.1 D 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.**

<p><b>VTM-18.1</b></p>
<p><b>Regional recommendation to NCWM on item status:</b></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><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>Tina Butcher (NIST OWM) requested that the committee recommend this item remain a developing item.</p>

**VTM-20.1 S.3.1. Diversion of Measured Liquid.**

<p><b>VTM-20.1</b></p>
<p><b>Regional recommendation to NCWM on item status:</b></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>

<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
Tina Butcher (NIST OWM) requested that the committee recommend this item remain a developing item.

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

VTM-20.2
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
Charlie Stutesman (KS & Chair of Milk Meter Tolerance Task Group) updated the committee that the task group was hard at work on this item.

**LPG – LPG AND ANHYDROUS AMMONIA LIQUID-MEASURING DEVICES**

**LPG-20.1      V    S.2.5. Zero-Set-Back Interlock and S.2.6. Automatic Timeout.**

LPG-20.1
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>

The only comments the S&T committee heard during open hearings were an interest to keep language uniform in Handbook 44. The CWMA S&T committee recommends this item be amended as follows:

**S.2.6.2. Automatic Timeout Pay-at-Pump Retail Motor-Fuel Devices. – Once a device has been authorized, it must de-authorize within ~~two~~ **three** minutes if not activated. Re-authorization of the device must be performed before any product can be dispensed. If the time limit to de-authorize the device is programmable, it shall not accept an entry greater than ~~two~~ **three** minutes.**

**[Nonretroactive as of 2021]**

**(Added 2020)**

We believe this item, as amended, is fully developed and recommend this item move forward as voting.

## WTR – WATER METERS

### WTR-20.2 V S.1.1.4. Advancement of Indicating and Recording Elements.

#### WTR-20.2

##### 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)*

The only comments heard during open hearings were from Charlie Stutesman (KS) who supported the item as amended. The committee recommends the item moving forward as a voting item with the proposed amendments by the NCWM S&T Committee.

### WTR-21.1 S.2.2. ~~Batching Measuring Systems~~ Air/Vapor Elimination.

#### WTR-21.1

##### 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)*



<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 checked="" 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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
<p>The committee heard comments from a number of regulatory officials expressing technical problems with this item. The committee feels this item is not a needed addition to Handbook 44, and makes no recommendation.</p>

**WTR-20.1 V S.3.2. Meter size and Directional Flow Marking Information.**

<b>WTR-20.1</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
<p>The S&amp;T committee heard no comments during open hearings on this item. We feel this item is fully developed and recommend this item move forward as a voting item.</p>

**MFM – MASS FLOW METERS**

**MFM-20.1 V S.1.3.3. Maximum Value of Quantity Divisions.**

<b>MFM-20.1</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
The S&T committee heard no comments during open hearings on this item. We feel this item is fully developed and recommend this item move forward as a voting item.

**MFM-21.1                      UR.3.3. Ticket Printer: Customer Ticket**

<b>MFM-21.1</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
The S&T committee heard a number of comments from regulatory officials about the merits of this item. We recommend this item move forward as a developing item and suggest that the developer of this item and the Block 4 items work together on this issue.

**EVF – ELECTRIC VEHICLE FUELING SYSTEMS**

**EVF-21.1                      A.1. General**

<b>EVF-21.1</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>

The S&T committee heard numerous comments of concern from regulatory officials on this item. The key issues addressed were the 10-year exemption, the blanket exemption from the EVFS codes, and the competitive advantage this item may present to the industry. We feel this item has merit and feel a more appropriate course of action would be to request exemptions from specific requirements vs. a blanket exemption. We recommend this item move forward as a developing item.

**EVF-21.2            A.2. Exceptions**

<b>EVF-21.2</b>
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard a number of concerns from regulatory officials about a blanket exemption from the EVFS code for EVSE devices located at a multi-unit residence, workplace, or other locations not open to the public. Concerns were also heard from regulatory officials about a blanket exemption for EVSE devices used exclusively for fleet sales and other price contract sales. We feel this issue is likely already covered by G-A.1. paragraph (a). We recommend this item be withdrawn.</p>

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

<b>EVF-20.1</b>
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The only comments heard on this item by the S&amp;T committee were from Tina Butcher (NIST OWM) giving an update from the USNWG on EVFS for this item have yet to reach a consensus on the proposed or alternate language</p>

and asked the committee to recommend a developing status for this item. The committee concurs with her recommendation.

**EVF-21.3                    S.1.2. EVSE Indicating Elements, S.2.4.1. Unit Price, S.2.5. EVSE Money-Value Computations., S.2.7. Indication of Delivery**

EVF-21.3
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></b></p> <p>The S&amp;T committee heard several concerns on this item from regulatory officials. Some of the concerns dealt with the availability of access to the apps/integrated vehicle display at the time of inspection or following up on a consumer complaint. Another concern is the security of the communication between the device and the display. These devices may need to be submitted to NTEP for type evaluation similar to POS systems and software used to generate scale tickets even if they are not the primary indicating element. We feel this item has merit and recommend this item move forward as a developing item.</p>

**EVF-21.4                    S.3.3. Provision for Sealing**

EVF-21.4
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM: <i>(This will appear in NCWM reports)</i></b></p> <p>The only comments heard by the S&amp;T committee on this item were from Tina Butcher (NIST OWM). She advised that this item has come out of the work of the USNWG EVF&amp;S and is fully developed and recommended this item for voting status. The committee agrees.</p>

**EVF-19.1 V S.3.5. Temperature Range for System Components. and S.5.2. EVSE Identification and Marking Requirements.**

EVF-19.1
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard no comments during open hearings on this item. We feel this item is fully developed and recommend this item move forward as a voting item.</p>

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

EVF-21.5
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input checked="" type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard concerns from regulatory officials that this item does not have a sunset date, so devices installed prior to January 1, 2033 would be allowed a higher tolerance for the life of those devices. The committee also heard comments that a limited amount of data was available to support the higher tolerances. We feel that this item has merit and recommend it move forward with a developing status.</p>

**EVF-21.6                      Definitions: minimum measured quantity (MMQ)**

EVF-21.6
<p><b>Regional recommendation to NCWM on item status:</b></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><b>Comments and justification for the regional recommendation to NCWM: (This will appear in NCWM reports)</b></p> <p>The only comments received by the S&amp;T committee were from Tina Butcher (NIST OWM). She explained that this item is to correct an inadvertent omission to the EVFS code. She also advised that the submitted item should be changed as follows to add this definition to the EVFS code and not Appendix D.</p> <p><b>Item Under Consideration:</b> Amend NIST Handbook 44 NIST, Section 3.40. Definitions as follows:</p> <p><b><u>minimum measured quantity (MMQ). – The smallest quantity delivered for which the measurement is to within the applicable tolerances for that system. [3.37, 3.39, 3.40]</u></b></p> <p>We feel that this item is fully developed with the change made above and recommend this item move forward as a voting item.</p>

**EVF-20.2                      V    Definitions: submeter**

EVF-20.2
<p><b>Regional recommendation to NCWM on item status:</b></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><b>Comments and justification for the regional recommendation to NCWM: (This will appear in NCWM reports)</b></p> <p>The only comments the S&amp;T committee heard, from both NIST OWM and state regulatory officials, expressed a concern with the use of the word “master meter.” Tina Butcher (NIST OWM) explained that the term “master</p>

meter” has a widely accepted definition in the electric vehicle and watt hour industry. We feel this item is fully developed and recommend this item move forward as a voting item.

**TXI – TAXIMETERS**

See Block 3 Items: Tolerances for Distance Testing.

**TIM – TIMING DEVICES CODE**

**TIM-20.1 V S.1.1.3. Value of Smallest Unit.**

TIM-20.1
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><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></li> </ul>
<p><b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i></p> <p>The S&amp;T committee heard no comments during open hearings on this item. We feel this item is fully developed and recommend this item move forward as a voting item.</p>

**GMA – GRAIN MOISTURE METERS 5.56 (A)**

**GMA-20.1 V S.2.5. Provisions for Sealing.**

GMA-20.1
<p><b>Regional recommendation to NCWM on item status:</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Recommend as a Voting Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Information Item on the NCWM agenda</li> <li><input type="checkbox"/> Recommend as an Assigned Item on the NCWM agenda <i>(To be developed by an NCWM Task Group or Subcommittee)</i></li> <li><input type="checkbox"/> Recommend as a Developing Item on the NCWM agenda <i>(To be developed by source of the proposal)</i></li> <li><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></li> <li><input type="checkbox"/> No recommendation from the region to NCWM</li> </ul>

<i>(If this is a new proposal, it will not be forwarded to the national committee by this region)</i>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
The S&T committee heard no comments during open hearings on this item. The committee recommends the item moving forward as a voting item with the proposed amendments by the NCWM S&T Committee.

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

<b>GMA-19.1</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
The S&T committee heard comments from G. Diane Lee (NIST OWM) giving an update from the NTEP Grain Analyzer Sector work on this item and requested this item remain developing so they can complete their work on this item. The committee recommends this item remain with a developing status.

**MDM – MULTIPLE DIMENSION MEASURING DEVICES**

**MDM-20.1 V S.1.3. Negative Values, S.1.6. Customer Indications and Recorded Representations, S.1.7. Minimum Measurement, S.1.8. Indications Below Minimum and Above Maximum, S.2. Design of Zero Tare Dimensional Offset and Appendix D – Definitions: dimensional offset**

<b>MDM-20.1</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
The S&T committee heard comments in support of this item from both the SMA and NIST OWM. We feel this item is fully developed and recommend this item move forward as a voting item.

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

<b>ITEM BLOCK 3</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>
The only comments received by the committee were from Tina Butcher (NIST OWM). She gave an update of the work of the USN WG and requested these items remain as developing items. The committee agrees.

**OTH – OTHER ITEMS**

**OTH-16.1 D Electric Watthour Meters Code under Development**

<b>OTH-16.1</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM:</b> <i>(This will appear in NCWM reports)</i>

The only comments received on this item were from Tina Butcher (NIST OWM). She requested this item remain developing as the USNWG continues its work. We recommend this item remain developing.

**OTH-21.1            Appendix A – 2.1. Acceptance and Maintenance Tolerances.**

**Source:**

<b>OTH-16.1</b>
<b>Regional recommendation to NCWM on item status:</b>
<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>
<b>Comments and justification for the regional recommendation to NCWM: (This will appear in NCWM reports)</b>
<p>The committee heard from numerous regulatory officials that this item is a good addition to the handbook and recommended this item move forward as a voting item. We feel this item is fully developed and recommend this item as a voting item.</p>

**OTH-20.1            V    Appendix D – Definitions: submeter (Now Item EVF-20.2)**

<b>OTH-20.1 (Now Item EVF-20.2)</b>
<b>Regional recommendation to NCWM on item status:</b>
<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 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>
<b>Comments and justification for the regional recommendation to NCWM: (This will appear in NCWM reports)</b>
<p>See EVF-20.2</p>

---

Mr. Jason Smith, South Dakota | Committee Chair  
Mr. Charlie Stutesman, Kansas | Member  
Mr. Glen Raef, Missouri | Member  
Mr. Brett Willhite, Minnesota | Member  
Mr. Loren Minnich, Kansas | NCWM Representative  
Mr. Nick Owens, Stark County Ohio | NCWM Representative

**Specifications and Tolerances Committee**