Specifications and Tolerances (S&T) Committee 2025 Interim Meeting Report Addendum Sheet

Mr. David Aguayo, Committee Chair San Luis Obispo County, California

INTRODUCTION

The S&T Committee submits its Committee Interim Report for consideration by National Conference on Weights and Measures (NCWM). This addendum sheet contains the report items published in NCWM Publication 16: Committee Reports for the 110th Annual Meeting. The addendum sheet will address the following items during the Annual Meeting.

Items are grouped according to item status:

- (VC) Voting Consent Calendar: The Committee has grouped these items for a single vote.
- (V) Voting Item: The Committee is making recommendations requiring a vote by the active members of NCWM.
- (I) Informational Item: The item is under consideration by the Committee but, not proposed for Voting.
- (A) Assigned Item: The Committee assigned development of the item to a recognized subcommittee or task group.
- **(D) Developing Item:** The Committee determined the item has merit; however, the item was returned to the submitter or other designated party for further development before any action can be taken at the national level.
- (W) Withdrawn Item: The item has been removed from consideration by the Committee.

Consent Calendar Item(s)		
Reference Key	Title of Item	Addendum S&T Page
SCL – SCALES		7
SCL-25.5	VC T.N.2.4. Multi-Interval and Multi-Range (Variable Division	-Value) Scales8
AWS – AUTOMA	ATIC WEIGHING SYSTEMS CODE	8
AWS-24.1	VC N.1.5. Test Loads., N.1.5.1 Initial Verification., Table N. Loads, N.1.5.2. Subsequent Verification., N.2. Test Procedu N.2.1. Non-Automatic Tests., N.2.1.3. Shift Test., N.2.2.1. Automatic for Weigh-Labelers., N.2.2.2. Automatic Tests fo Checkweighers., N.3. Test Procedures Automatic Checkwe Automatic., N.3.2. Automatic Tests., Table N.23.2.2. Numb per Test for Automatic Checkweighers	res - Weigh Labelers ., Automatic Tests Non- r Automatic igher., N.3.1. Tests Non- er of Sample Weights

Voting Item(s) Addendum S&T Page Title of Item Reference Key GEN-25.1 SCL-25.4 SCL-25.2 Multiple Sections Regarding Adding Volumetric Measuring Devices to Section 5.58....10 V MDM-25.1 OTH-25.1 B3-VTM-20.2 V B3-MLK-23.2 V

Developing Item(s) Title of Item Addendum S&T Page **Reference Key** SCL-24.2 D SCL-25.3 HGV - HYDROCARBON GAS VAPOR-MEASURING DEVICES9 S.1.1.4. Advancement of Indicating and Recording Elements., S.11.5. Proving HGV-25.1 Indicator., S.2.2. Provision for Sealing., S.4.3. Temperature Compensation., S.4.4. Badge Identification., N.3. Test Drafts., N.4.1. Normal Tests., and Appendix D. Definitions register9 FMT-25.1 UR.1. Installation 10

	Assigned Item(s)			
Reference Key		Title of Item	Addendum S&T Page	
SCL – SCALES.			7	
SCL-22.2	A	UR.3.1.X. Required Minimum for Cannabis Products	7	

Informational Item(s) Title of Item Addendum S&T Page **Reference Key** S.5.2., S.6., and UR.3.1..... SCL-25.1 Ι LMD - LIQUID MEASURING DEVICES.....9 N.4.1. Normal Tests. 9 LMD-24.2 ITEM BLOCK 1 (B1) – TRANSPORTATION-FOR-HIRE SYSTEMS......13 B1-TNS-25.1 B1-TXI-25.1

Withdrawn Item(s) Reference Key Title of Item Addendum S&T Page VTM – VEHICLE TANK METERS 9 VTM-25.1 W UR.2.2. Recording Element 9 HGM – HYDROGEN GAS-MEASURING DEVICES 9 HGM-23.1 W UR.3.8. Safety Requirement 9 MDM – MULTIPLE DIMENSION MEASURING DEVICES 10 MDM-25.2 W N.1 Test Procedures 12 MDM-25.3 W T.3. Tolerance Values 12

Details of All Items

(In order by Reference Key)

GEN – GENERAL CODE

GEN-25.1 V G-S.5.6. Recorded Representations

GEN-25.1		
Comments:		
No changes.		

SCL - SCALES

SCL-24.2 D Multiple Sections Regarding Tare

	SCL-24.2	
Comments:		
No changes.		

SCL-22.2 A <u>UR.3.1.X. Required Minimum for Cannabis Products.</u>

	SCL-22.2	
Comments:		
No changes.		

SCL-25.4 V S.1.2.2.2. Class III, III L, and IIII Scales. and S.1.2.2.2.2. Weight Classifiers.

SCL-25.4 Comments:

The Committee corrected the amended dates in paragraph S.1.2.2.2. to align with NCWM formatting standards.

S.1.2.2.2. Class III, III L, and IIII Scales. – The value of "e" is specified by the manufacturer as marked on the device. Except for dynamic monorail scales and weight classifiers, "e" must be equal to "d." (Added 1999) (Amended 2024 and 20XX)

SCL-25.1 I S.5.2., S.6., and UR.3.1.

	SCL-25.1	
Comments:		
No changes.		

SCL-25.2 V Table S.6.3.a. Marking Requirements and Definitions

SCL-25.2 Comments:

The e_{min} definition attributed to Section 2.20 that is being proposed is a new definition and therefore should not have appeared with the "(Added 1997) (Amended 20XX)" dates. The Committee amended the date to align with NCWM formatting standards.

emin (minimum verification scale interval). – The smallest verification scale interval for which a weighing element complies with the applicable requirements. [2.20]

(Added 20XX)

SCL-25.3 D UR.3.14. Zero-Balance Recorded Weight for Forklift Scales

	SCL-25.3
Comments:	
No changes.	

SCL-25.5 VC T.N.2.4. Multi-Interval and Multi-Range (Variable Division-Value) Scales.

	SCL-25.5
Comments:	
No changes.	

AWS – AUTOMATIC WEIGHING SYSTEMS CODE

AWS-24.1 VC N.1.5. Test Loads., N.1.5.1. Initial Verification., Table N.1.5.1. Initial

Verification Test Loads, N.1.5.2. Subsequent Verification., N.2. Test

Procedures -Weigh-Labelers., N.2.1. Non-Automatic Tests., N.2.1.3. Shift

Test., N.2.2.1. Automatic Tests Non-Automatic for Weigh-Labelers., N.2.2.2.

Automatic Tests for Automatic Checkweighers., N.3. Test Procedures
Automatic Checkweigher., N.3.1. Tests Non-Automatic., N.3.2. Automatic

Tests., Table N.23.2.2. Number of Sample Weights per Test for Automatic

Checkweighers

		AWS-24.1
Comments:		
No changes.		
IMD IIO	IIID M	IEASURING DEVICES
LNID – LIQ	UID NI	LEASURING DEVICES
LMD-24.2	I	N.4.1. Normal Tests.
		LMD-24.2
Comments:		
No changes.		
VTM – VEH	IICLE	TANK METERS
VTM-25.1	W	UR.2.2. Recording Element
		VTM-25.1
Comments:		
No changes.		
HGV – HYI HGV-25.1	DROC <i>i</i>	ARBON GAS VAPOR-MEASURING DEVICES S.1.1.4. Advancement of Indicating and Recording Elements., S.11.5. Proving Indicator., S.2.2. Provision for Sealing., S.4.3. Temperature Compensation., S.4.4. Badge Identification., N.3. Test Drafts., N.4.1. Normal Tests., and Appendix D. Definitions register
		HGV-25.1
Comments:		
No changes.		
HGM – HYI	DROG W	EN GAS-MEASURING DEVICES <u>UR.3.8. Safety Requirement.</u>
		HGM-23.1
Comments:		
No changes.		

FMT – FARM MILK TANKS

FMT-25.1 D UR.1. Installation

	FMT-25.1	
Comments:		
No changes.		

MDM - MULTIPLE DIMENSION MEASURING DEVICES

MDM-25.1 V Multiple Sections Regarding Adding Volumetric Measuring Devices to Section 5.58.

MDM-25.1

Comments:

The Committee corrected the formatting of the amended dates for paragraph S.1.6.1. to align with NCWM formatting standards.

<u>S.1.6.1. Multiple Dimension Measuring Devices.</u> – Multiple dimension measuring <u>devices</u> or systems must provide information as specified in Table S.1.6.<u>1.</u> Required Information to be Provided by Multiple Dimension Measuring Systems. As a minimum, all devices or systems must be able to meet either column I or column II in Table S.1.6.<u>1.</u> Required Information to be Provided by Multiple Dimension Measuring Systems.

(Amended 2004 and 20XX)

The Committee agreed with the suggested edits from the MDMD Work Group and amended S.1.6.3. to clarify that it applied only to Volumetric Measuring Devices.

S.1.6.3. Recorded Representations, Volumetric Measuring Devices. – When interfaced with the elements that are necessary for a point-of-sale system, the recorded representation provided shall contain:

- (a) the net volume of the commodity
- (b) the identity of the commodity
- (c) the unit price of the commodity
- (d) the total price of the commodity

(Added 20XX)

Table T.3.1. Maintenance Tolerances as it appeared in the agenda incorrectly stated the range of divisions for each tolerance column in the table. The Committee corrected the range of divisions to align them with the intent of the original justification.

<u>Table T.3.1.</u>					
Maintenance Tolerances					
(All values in this table are in measuring divisions)					
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>		
$0-200^{1}$	201 - 400	<u>401- 800</u>	<u>801 +</u>		
¹ See S.1.7. Minimum Measurement (12 d).					

For consistency, the Committee added the word "axis" to each dimension and changed the abbreviations for length (L), width (W), and height (H) in the definition of dimensional volume to align with other paragraphs in Section 5.58.

dimensional volume (DV). - Volume of the smallest rectangular box which fully encloses the object, and is the product of the indicated values of length axis (x), width axis (y) and height axis (z) (DV = $x \times y \times z$). [5.58] (Added 20XX)

MDM-25.2 W N.1 Test Procedures

MDM-25.2	
Comments:	
No changes.	

MDM-25.3 W T.3. Tolerance Values

	MDM-25.3	
Comments:		
No changes.		

OTH – OTHER ITEMS

OTH-25.1 V 2.26 Weigh-in-Motion Systems Used for Vehicle Direct Enforcement

OTH-25.1 Comments:

For consistency with other code sections, the Committee removed the words "for Accuracy" from T.2. and corrected the references to Table T.2.3. Maintenance Tolerances in paragraphs S.1.6., T.3.3., and T.4.

- S.1.6. Identification of a Fault. Fault conditions affecting accuracy as specified in Table T.2.3. Maintenance Tolerances shall be presented to the operator in a clear and unambiguous means. No weight values shall be indicated or recorded when a fault condition is detected. The following fault conditions shall be identified:
 - (a) Vehicle speed is below the minimum or above the maximum system specified speed.
 - (b) The maximum number of vehicle axles as specified has been exceeded.
 - (c) A change in vehicle speed greater than that specified has been detected.
 - (d) Imbalanced weight between the left and right wheels has exceeded the specified values.
 - (e) Vehicle has changed lanes between or in the proximity of the first and the last sensors.
 - (f) Any axle or wheel, or part of each is not on the load-receiving element of the sensors.
 - (g) Vehicle direction of travel is not valid for the installation.

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T.2. Tolerance Values.

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Maintenance Toler at 60 Hz or the volta	Supply. – System shall satisfy the tolerance requirements in Table T.2.3. ances under voltage ranges of -15% to +10% of the marked nominal line voltage(s) age range marked by the manufacturer at 60 Hz. The battery-operated systems shall be requirements in Table T.2.3. Maintenance Tolerances when the battery power ive or deficient.	
difference between the	cy Interference (RFI) and Other Electromagnetic Interference Susceptibility. – The weight indication due to the disturbance and the weight indication without the ceed the tolerance value as stated in Table T.2.3. Maintenance Tolerances.	
ITEM BLOCK 1 (B1) – TRANSPORTATION-FOR-HIRE SYSTEMS	
B1-TNS-25.1 I	Section 5.60. Transportation Network Measurement Systems Tentative Code	
B1-TXI-25.1 I	5.54 Taximeters Transportation-For-Hire Systems	
ITEM BLOCK 1		
Comments:		
No changes.		
ITEM BLOCK 3 (B3	s) – MILK METER TOLERANCES	
B3-VTM-20.2 V	Table T.2. Tolerances for Vehicle Mounted Milk Meters.	
B3-MLK-23.2 V	Table T.1. Tolerances for Milk Meters	
	ITEM BLOCK 3	
Comments:		
No changes.		



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