

## Laws and Regulations (L&R) Committee 2022 Interim Meeting Report

Mr. John McGuire, Committee Chair  
New Jersey

### INTRODUCTION

The L&R Committee (hereinafter referred to as the “Committee”) submits this Committee Interim Report for consideration by National Conference on Weights and Measures (NCWM). This report contains the items discussed and actions proposed by the Committee during the January Interim Meeting. The report will address the 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 acronyms for organizations and technical terms used throughout the agenda are identified in Table B. The headings and subjects apply to NIST Handbook 130, “Uniform Laws and Regulations in the Areas of Legal Metrology and Engine Fuel Quality,” and NIST Handbook 133, “Checking the Net Contents of Packaged Goods.” The first three letters of an item’s reference key are assigned from the Subject Series List. The status of each item contained in the report is designated as one of the following: **(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; **(A) Assigned Item:** the committee has assigned development of the item to a recognized subcommittee or task group within NCWM. **(I) Informational Item:** the item is under consideration by the Committee but not proposed for Voting; **(V) Voting Item:** the committee is making recommendations requiring a vote by the active members of NCWM; **(W) Withdrawn Item:** the item has been removed from consideration by the Committee.

Some Voting Items are considered individually; others may be grouped in a consent calendar. Consent calendar items are Voting Items that the Committee has assembled as a single Voting Item during their deliberation after the Open Hearings on the assumption that the items are without opposition and will not require discussion. The Voting Items that have been grouped into consent calendar items will be listed on the addendum sheets. Prior to adoption of the consent calendar, the Committee will remove specific items from the consent calendar upon request to be discussed and voted upon individually.

Committees may change the status designation of agenda items (Developing, Informational, Assigned, Voting and Withdrawn) up until the report is adopted, except those items which are marked Developing, Informational, Assigned or Withdrawn cannot be changed to Voting Status. Any change from the Committee Interim Report (as contained in this publication) or from what appears on the addendum sheets will be explained to the attendees prior to a motion and will be acted upon by the active members of NCWM prior to calling for the vote.

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***. Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

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.

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**Subject Series List**

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Handbook 130 – General .....	GEN Series
Uniform Laws	
Uniform Weights and Measures Law .....	WAM Series
Uniform Weighmaster Law .....	WMR Series
Uniform Fuels and Automotive Lubricants Inspection Law .....	FLL Series
Uniform Regulations	
Uniform Packaging and Labeling Regulation .....	PAL Series
Uniform Regulation for the Method of Sale of Commodities .....	MOS Series
Uniform Unit Pricing Regulation .....	UPR Series
Uniform Regulation for the Voluntary Registration of Servicepersons and Service Agencies for Commercial Weighing and Measuring Devices .....	RSA Series
Uniform Open Dating Regulation .....	ODR Series
Uniform Regulation for National Type Evaluation .....	NTP Series
Uniform Fuels and Automotive Lubricants Regulation .....	FLR Series
Examination Procedure for Price Verification .....	PPV Series
NCWM Policy, Interpretations, and Guidelines .....	POL Series
Handbook 133 .....	NET Series
Other Items .....	OTH Series

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

<b>Acronym</b>	<b>Term</b>	<b>Acronym</b>	<b>Term</b>
ASTM	ASTM International	NEWMA	Northeastern Weights and Measures Association
API	American Petroleum Institute	NIST	National Institute of Standards and Technology
CFR	Code of Federal Regulations	NCWM	National Conference on Weights and Measures
CWMA	Central Weights and Measures Association	OWM	Office of Weights and Measures
FALS	Fuels and Lubricants Subcommittee	PALS	Packaging and Labeling Subcommittee
FDA	Food and Drug Administration	S&T	Specifications and Tolerances
FTC	Federal Trade Commission	SAE	SAE International
HB	Handbook	SWMA	Southern Weights and Measures Association
ILMA	Independent Lubricant Manufacturers Association	UPLR	Uniform Packaging and Labeling Regulation
L&R	Laws and Regulations	USDA – FSIS	U.S. Department of Agriculture – Food Safety and Inspection Service
LPG	Liquefied Petroleum Gas	USNWG	U.S. National Work Group
MAV	Maximum Allowable Variation	WWMA	Western Weights and Measures Association

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**Details of All Items**  
(In order by Reference Key)

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**WAM – UNIFORM WEIGHTS AND MEASURES LAW**

**WAM-22.2          V      Section 11. Powers and Duties of the Director.**

**Source:**

Northeastern Weights and Measures Association

**Purpose:**

Provide the Director with authority to regulate Cannabis and products containing cannabinoid(s).

**Item Under Consideration:**

Amend the Uniform Weights and Measures Law as follows:

**Section 11. Powers and Duties of the Director**

**I.** The Director shall:

...

**II.** The Director may:

**(a) Establish by regulation for Cannabis and Cannabis-Containing Products:**

**(1) reasonable variations in quantity caused by the unavoidable loss or gain of moisture during current good manufacturing and distribution practices and procedures for moisture determinations;**

**(2) labeling requirements for, and defining reasonable variations in water activity that occur in current good manufacturing and distribution practices, and procedures for the measurement of water activity;**

**(3) labeling requirements for, and defining reasonable variations in levels of cannabinoid that occur in current good manufacturing and distribution practices, and procedures for the measurement of potency; and**

**(4) packaging and labeling requirements that may include, among other requirements, the characteristics of the packaging (e.g., color) and type of packaging (e.g., tamper evident, childproof, product stabilization), requirements for identity, ingredients, product lot code and date of packaging, contact information of the packer, special symbols or warnings, and potency. The requirements may also include prohibitions on packaging that may be misleading or confusing.**

**(b) The Director may prescribe by regulation, programs that utilize accredited testing laboratories and may enter into agreements to utilize conformity assessment programs and other technical services to ensure compliance with any of the prescribed requirements.**

**(Added 20XX)**

**Previous Action:**

N/A

**Arguments in Favor:**

**Regulatory:**

- Many regulators spoke in favor of the item including Florida which has already adopted regulations for cannabis in their state. They and other states expressed a need for clear authority to regulate cannabis if the authority of weights and measures officials to regulate is challenged and for those without current authority.
- NEWMA and other state regulators had no problem with changing “shall” to “may.”

**Industry:**

- The Arizona Dispensaries Association and CPR Squared, Inc., representing the cannabis industry supported this item citing the need for regulation to protect the consumer and ensure a level playing field for industry.

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- One Regulator spoke against this item and requested it be withdrawn.

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee assigned Voting status to this item at the 2022 NCWM Interim meeting.

Due to multiple open hearing statements in favor of adding a "may" distinction in this section, the committee created a new section (2) to distinguish that all references to duties of the Director in reference to Cannabis and Cannabis containing products are permissive. Various other technical and grammatical edits were made to further clarify the new sections.

**Original Justification:**

Many of the states' weights and measures laws may not give the state director authority to regulate the types of Cannabis labeling. Amended language will be required to the Uniform Weights and Measures Law to add the needed authority. The proposed language is from the OWM analysis of the new proposals in Item Block 3 - Cannabis.

**Regional Associations' Comments:**

WWMA 2021 Annual Meeting: This item was not presented to the WWMA.

SWMA 2021 Annual Meeting: This item was not presented to the SWMA.

CWMA 2021 Interim Meeting: This item was not presented to the CWMA.

NEWMA 2021 Interim Meeting: This item originated through the NEWMA 2021 Interim Meeting based on a suggestion by NIST OWM. NEWMA supported the item and recommended Voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

**PAL – UNIFORM PACKAGING AND LABELING REGULATION**

**PAL-22.3                      V      Section 8.2. Calculation of Area of Principal Display Panel for Purposes of Type Size.**

**Source:**

NIST, Office of Weights and Measures

**Purpose:**

Clarify Section 8.2. Calculation of Area of Principal Display Panel for Purposes of Type Sizes and update illustrations.

**Item Under Consideration:**

Amend Handbook 130, Uniform Packaging and Labeling Regulation, as follows:

**8.2. Calculation of Area of Principal Display Panel for Purposes of Type Size.** – The area of the principal display panel shall be:

**(a)** in the case of a rectangular container, one entire side that properly can be considered the principal display panel, the product of the height times the width of that side;

For Figure 3 **Calculation of the Area of the Principal Display Area of a Rectangular Container**, the area of the principal display panel is 20 cm (8 in) × 15 cm (6 in) = 300 cm<sup>2</sup> (48 in<sup>2</sup>).

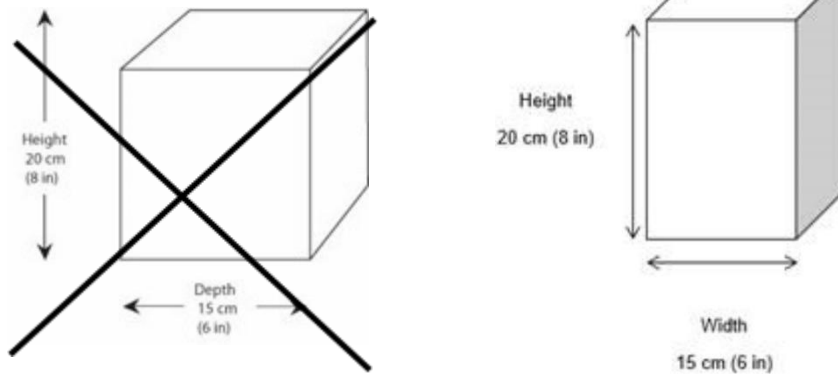


Figure 3. Calculation of the Area of the Principal Display Area of a Rectangular Container

(b) in the case of a cylindrical or nearly cylindrical container, ~~40 % of the product of the height of the container times the circumference;~~ times 40 %.

For Figure 4 Calculation of the Area of the Principal Display Area of a Cylindrical Container, the area of the principal display panel is:

~~$25 \text{ cm (10 in)} \times 5 \text{ cm (2 in)} = 125 \text{ cm}^2 (20 \text{ in}^2) \times 0.40 = 50 \text{ cm}^2 (8 \text{ in}^2)$~~   $5 \text{ cm (2 in)} \times 25 \text{ cm (10 in)} = 125 \text{ cm}^2 (20 \text{ in}^2) \times 0.40 = 50 \text{ cm}^2 (8 \text{ in}^2)$  (See also Section 10.7. Cylindrical Containers).

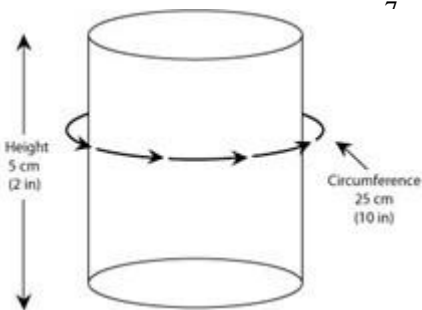


Figure 4. Calculation of the Area of the Principal Display Area of a Cylindrical Container

~~The area of the principal display panel is the same in both examples. The declaration of net quantity of contents must be of the same height in both cases. It is not the size of the label that is used to determine the minimum type size of the quantity statement, but the size of the surface of the package exposed to view to the customer. The package on the right side of the figure has a spot label (see Section 2.12. Spot Label and Section 11.29. Spot Label); and~~

(c) in the case of any other shaped container, 40 % of the total surface of the container, unless such container presents an obvious principal display panel (e.g., the top of a triangular or circular package of cheese, or the top of a can of shoe polish), in which event the area shall consist of the entire such surface. Determination of the principal display panel shall exclude tops, bottoms, flanges at tops and bottoms of cans, and shoulders and necks of bottles or jars. See Figure 5. Other Shaped Containers.



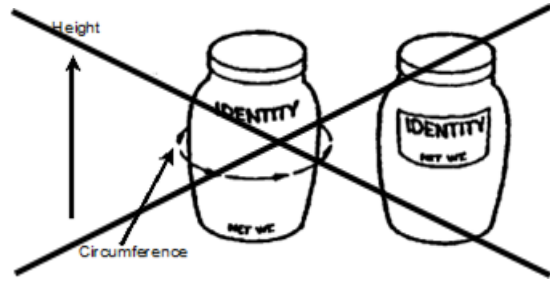


Figure 5. Other Shaped Containers.

**Determination of the principal display panel shall exclude tops, bottoms, flanges at tops and bottoms of cans, and shoulders and necks of bottles or jars.**

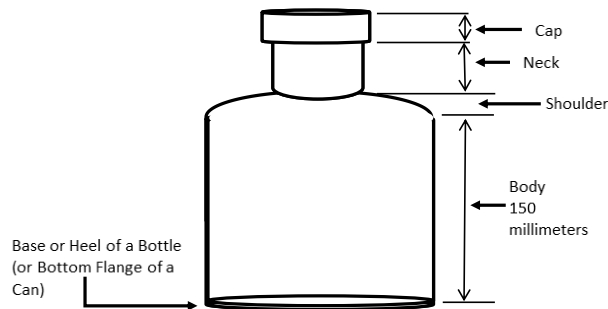


Figure 5. Other Shaped Containers.

**(d) In the case of a spot label, it is not the size of the label that is used to determine the minimum type size of the quantity statement, but the size of the surface of the package exposed (panel) viewable to the customer. The declaration of net quantity of contents must be of the same height in both cases. In Figure 6. Spot Labels, the package on the right side of the figure has a spot label. The area of the principal display panel is the same in both examples. (see Section 2.12. Spot Label and Section 11.29. Spot Label).**

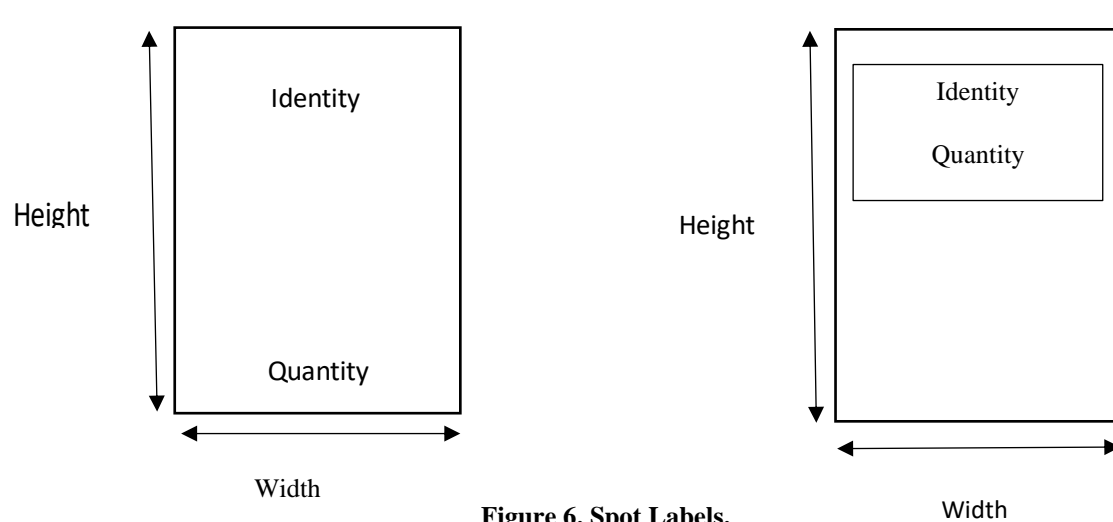


Figure 6. Spot Labels.

**Previous Action:**

N/A

**Arguments in Favor:**

**Regulatory:**

- Several states spoke in support of this item and moving forward as a voting item.

**Industry:**

- None

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee assigned Voting status to this item because it heard only favorable comments during the open hearings and believes the item is fully developed. Some formatting changes were made to the item.

**Original Justification:**

This section is being updated clarify through wording and graphic illustrations s as to how to properly calculate the area of a principal display panel for purposed of type size.

The submitter requested that this be a Voting Item in 2022.

**Regional Associations' Comments:**

WWMA 2021 Annual Meeting: Ms. Lisa Warfield, (NIST OWM) (submitter) – Provided testimony that OWM submitted this item to clarify equations and update graphics. Mr. Matt Douglas (CDFA-DMS) – Provided testimony that the item is fully developed and supports with minor editorial changes to equations and graphics.

The Committee recommends this as a Voting item with editorial formatting changes.

SWMA 2021 Annual Meeting: No comments were received from the floor during open hearings. The Committee believes this item has merit and is fully developed. The Committee recommends this item as a Voting item.

CWMA 2021 Interim Meeting: Lisa Warfield, NIST Technical Advisor commented that this is an update of the language and graphics for this item, and it is fully developed. There were no other comments heard on this item. Based on the supporting documents submitted by NIST, the Committee believes this item is fully developed and ready for voting status.

NEWMA 2021 Interim Meeting: David Sefcik, NIST Technical Advisor commented that this proposal clarifies language in this section and updates graphics. He believes the item is fully developed and ready for Voting status. John McGuire, New Jersey, Jim Willis New York, Walt Remmert, PA and Jim Cassidy, Massachusetts all support the item moving forward with Voting status. The Committee recommends the item be given Voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

**MOS – UNIFORM REGULATION FOR THE METHOD OF SALE OF COMMODITIES**

**MOS-22.3 V Section 2.4. Fireplace and Stove Wood.**

**Source:**

New Hampshire Division of Weights and Measures

**Purpose:**

To correct Part B. Uniform Regulation for the Method of Sale of Commodities and keep it consistent with federal requirements and to recognize products sold in the market that are not represented in current regulations. Also, to fix a couple unit representations.

**Item Under Consideration:**

Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

**2.4. Fireplace and Stove Wood.** – For the purpose of this regulation, this section shall apply to the sale of all wood, natural and processed, for use as fuel or flavoring.  
(Amended 1999)

1           **2.4.1. Definitions.**

2           **2.4.1.1. Fireplace and Stove Wood.** – Any kindling, logs, boards, timbers, or other wood, natural or  
3           processed, split, or not split, advertised, offered for sale, or sold for use as fuel.

4           (Amended 1991)

5           **2.4.1.2. Cord.** – The amount of wood that is contained in a space of 128 ft<sup>3</sup> when the wood is ranked  
6           and well stowed. For the purpose of this regulation, “ranked and well stowed” shall be construed to mean  
7           that pieces of wood are placed in a line or row, with individual pieces touching and parallel to each other,  
8           and stacked in a compact manner.

9           **2.4.1.3. Representation.** – This shall be construed to mean any advertisement, offering, invoice, or the  
10          like that pertains to the sale of fireplace or stove wood.

11          **2.4.1.4. Flavoring Chips.** – Any kindling, logs, boards, timbers, or other natural or processed, split or  
12          unsplit wood that is advertised, offered for sale, or sold for flavoring smoked or barbecued foods.

13          (Added 1999)

14          **2.4.2. Identity.** – A representation may include a declaration of identity that indicates the species group (for  
15          example, 50 % hickory, 50 % miscellaneous softwood). Such a representation shall indicate, within 10 %  
16          accuracy, the percentages of each group.

17          **2.4.3. Quantity.** – Fireplace and stove wood shall be advertised, offered for sale, and sold only by measure,  
18          using the term “cord” and fractional parts of a cord or the cubic meter, except that:

19           (a) **Packaged natural wood.** – Natural wood offered for sale in packaged form in quantities less than  
20           0.45 m<sup>3</sup> (<sup>1</sup>/<sub>8</sub> cord or 16 ft<sup>3</sup>) shall display the quantity in terms of:

21                   (1) liters, ~~to include~~ including fractions **or multiples of the liter. A net quantity of contents**  
22                   **declaration and** may also include a ~~declaration of~~ quantity in **units terms of cubic foot or**  
23                   **feet to include** fractions **or multiples** of a cubic foot **(i.e. cubic feet).**

24           (Amended 2010, ~~and 2016, and 20XX~~)

25          ~~**NOTE: Implementation for the requirement for use of the liter in (1); packages may continue to show**~~  
26          ~~**the cubic decimeter (dm<sup>3</sup>) instead of liters (L) for four years after the effective date of this regulation**~~  
27          ~~**to allow for the use of current packages inventories.**~~

28          ~~**Effective date of enforcement shall be January 1, 2021.**~~

29          ~~**(Added 2016) (Amended 2019)**~~

30           (b) **Artificial compressed or processed logs products.** – ~~**A single fireplace log shall be sold by**~~  
31           ~~**weight, and packages of such individual logs Logs, bricks, or other shaped products greater**~~  
32           ~~**than 15 cm (6 in) in any dimension**~~ shall be sold by weight plus count.

33           **(Amended 20XX)**

34           (c) **Stove wood pellets or chips.** – Pellets or chips not greater than 15 cm (6 in) in any dimension shall  
35           be sold by weight. This requirement does not apply to flavoring chips.

36           (Amended 1976 and 1991)

37           (d) **Flavoring chips.** – Flavoring chips offered for sale in packaged form in quantities less than 0.45 m<sup>3</sup>  
38           (<sup>1</sup>/<sub>8</sub> cord or 16 ft<sup>3</sup>) shall display the quantity in terms of:

(1) liters, ~~to include~~ including fractions or multiples of the liter. A net quantity of contents declaration and may also include a ~~declaration of~~ quantity in units terms of cubic foot or feet to include fractions or multiples of a cubic foot (i.e. cubic feet).

(Added 1998) (Amended 2010 ~~and~~ 2016 and 20XX)

*NOTE: In determining the appropriate Method of Sale, a clear distinction must be made as to whether the wood is being sold primarily as fuel (some wood is sold as fuel but flavoring is a byproduct) or strictly as a wood flavoring.*

(Added 2010)

(Amended 1976, 1991, 1998, 2010, ~~and~~ 2016 and 20XX)

**2.4.4. Prohibition of Terms.** – The terms “face cord,” “rack,” “pile,” “truckload,” or terms of similar import shall not be used when advertising, offering for sale, or selling wood for use as fuel.

**2.4.5. Delivery Ticket or Sales Invoice.** – A delivery ticket or sales invoice shall be presented by the seller to the purchaser whenever any non-packaged fireplace or stove wood is sold. The delivery ticket or sales invoice shall contain at least the following information:

(a) the name and address of the vendor;

(b) the name and address of the purchaser;

(c) the date delivered;

(d) the quantity delivered and the quantity upon which the price is based, if this differs from the delivered quantity;

(e) the price of the amount delivered; and

(f) the identity, in the most descriptive terms commercially practicable, including any quality representation made in connection with the sale.

(Added 1975)

**Previous Action:**

N/A

**Arguments in Favor:**

**Regulatory:**

- Several states spoke in favor of this item as a voting item. NEWMA supported it as a voting item and provided some editorial changes for consideration.

**Industry:**

- None

**Advisory:**

- Lisa Warfield, OWM concurred with the NEWMA position.

**Arguments Against:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee assigned Voting status for this item at the 2022 NCWM Interim Meeting. The Committee heard support from membership for the item and the language proposed in the 2021 NEWMA interim fall report and made changes based on the NEWMA language. The Committee also made editorial changes to the item.

**Original Justification:**

**2.4.3. Quantity. (b) Artificial compressed or processed logs.**

Compressed firewood bricks are a popular product and are sold as a cleaner and more efficient alternative to cordwood. Since the regulation for artificial compressed or processed logs was added to the Handbook in 1976, compressed wood products, other than logs, have entered the market.

Compressed firewood bricks are generally sold in multipacks. There are some manufacturers that provide a net weight declaration on the multipack but there are several manufacturers that provide no declaration. Bulk sales have been advertised and sold by the pallet or skid (no weight representation), by the number of multipacks on a pallet (no weight representation), by the ton, or with a representation that a pallet equals 1 cord of firewood. When compressed firewood bricks are sold by the pallet, by the number of multipacks per pallet, or by the representation that it equals (1) cord (or a portion thereof), the consumer has no way to determine value from one manufacturer to another and no way of knowing what they are purchasing, except through a visual representation. Unless the consumer knows both the weight of each multipack and the total weight representation of the “pallet” of compressed firewood bricks, they would have a very hard time determining whether a bulk purchase is a better value than purchasing a single multipack. Also, if manufacturers are selling bulk products in different ways, it makes it difficult for businesses to compete.

The proposed update will give clarification and direction on how compressed firewood bricks shall be sold. This handbook change will help 1) sellers to compete with other brands on the same playing field, 2) buyers with value comparison, and 3) regulators to know how to enforce the advertising and selling of this type of commodity.

**2.4.3. Quantity. (a) Packaged natural wood. (1) and (d) Flavoring chips. (1)**

The change to the units in these paragraphs is to represent “like for like”.  
“liters are to feet” as “a liter is to a foot” (plural and singular representations)

The submitter acknowledged the following:

- “Artificial compressed and processed logs” could be understood to include other compressed products used for heating fuel.

- As for the units change, this part of the code was amended in 2019 and included both regulators and industry, so individuals may question why it needs to be changed.

The submitter requested that this be a Voting Item in 2022.

#### Regional Associations' Comments:

WWMA 2021 Annual Meeting: Ms. Lisa Warfield (NIST OWM) – Provided testimony to include a declaration of quantity in terms of cubic feet, to include fractions of a cubic foot. Mr. Kevin Schnepf (CDFA-DMS) – Provided testimony the item is well developed and supports with minor editorial changes.

The Committee recommends this as a Voting Item with the following changes for 2.4.3 (a)1 to be added and modified language to 2.4.3 (d):

**2.4.3. Quantity.** – Fireplace and stove wood shall be advertised, offered for sale, and sold only by measure, using the term “cord” and fractional parts of a cord or the cubic meter, except that:

(a) **Packaged natural wood.** – Natural wood offered for sale in packaged form in quantities less than 0.45 m<sup>3</sup> (1/8 cord or 16 ft<sup>3</sup>) shall display the quantity in terms of:

(1) liters, ~~to include~~ including fractions or multiples of the of ~~the~~ liter, ~~and~~ A net quantity of contents declaration may also include a declaration of quantity in ~~terms~~ units of ~~the~~ cubic foot ~~or feet to include~~ fractions or multiples of the cubic foot i.e., cubic feet.

(Amended 2010, ~~and~~ 2016, and 20XX)

***NOTE:** Implementation for the requirement for use of the liter in (1); packages may continue to show the cubic decimeter (dm<sup>3</sup>) instead of liters (L) for four years after the effective date of this regulation to allow for the use of current packages inventories.*

Effective date of enforcement shall be January 1, 2021.

(Added 2016) (Amended 2019 and 20XX)

(d) **Flavoring chips.** – Flavoring chips offered for sale in packaged form in quantities less than 0.45 m<sup>3</sup> (1/8 cord or 16 ft<sup>3</sup>) shall display the quantity in terms of:

(1) liters, including ~~to include~~ fractions or multiples of the liter. A net quantity of contents declaration may also include a declaration of quantity in ~~terms~~ units of the cubic foot ~~or feet to include~~ fractions or multiples of a-cubic foot (i.e., cubic feet).

(Added 1998) (Amended 2010, ~~and~~ 2016, and 20XX)

SWMA 2021 Annual Meeting: There were no comments received from the floor during open hearings. Ms. Lisa Warfield (NIST OWM) – Provided written analysis suggesting some language changes from the original proposal.

The Committee recommends this item as a Voting item with the original language as submitted by New Hampshire Division of Weights and Measures.

CWMA 2021 Interim Meeting: Lisa Warfield, NIST Technical Advisor commented that there is additional language she would like the committee to consider in the NEWMA and WWMA reports. Based on review of the revisions recommended in the 2021 NEWMA Interim L&R Report, the Committee supports the revisions and believes this item is fully vetted and ready for voting status with revisions.

NEWMA 2021 Interim Meeting: Mrs. Cheryl Ayer (New Hampshire) commented that there were issues with the way compressed fire bricks and logs were being sold. NIST Handbook 130 does not clarify and include all processed and compressed products and this item clarifies and includes more of the types of products and clarifies volume statements. Mr. David Sefcik (NIST Technical Advisor) commented that OWM agrees with the changes and provided some minor clarifications in their analysis report. He further stated that the language changes in Section (d) (1) needs to be

mirrored in Section (a) (1) and the Item would be ready for Voting status. Ms. Ayer believes the item is fully developed and ready for Voting status. Mr. Jim Cassidy (Massachusetts) supports this proposal and believes it is ready for Voting status. Mrs. Ayer accepts OWM;’ proposed changes as shown below. Ms. Ayer also provided an editorial change in (b) changing the word “larger” to greater”. The Committee recommends the item as ready for Voting status as amended.

**2.4. Fireplace and Stove Wood.** – For the purpose of this regulation, this section shall apply to the sale of all wood, natural and processed, for use as fuel or flavoring.  
(Amended 1999)

**2.4.1. Definitions.**

**2.4.1.1. Fireplace and Stove Wood.** – Any kindling, logs, boards, timbers, or other wood, natural or processed, split, or not split, advertised, offered for sale, or sold for use as fuel.  
(Amended 1991)

**2.4.1.2. Cord.** – The amount of wood that is contained in a space of 128 ft<sup>3</sup> when the wood is ranked and well stowed. For this regulation, “ranked and well stowed” shall be construed to mean that pieces of wood are placed in a line or row, with individual pieces touching and parallel to each other, and stacked in a compact manner.

**2.4.1.3. Representation.** – This shall be construed to mean any advertisement, offering, invoice, or the like that pertains to the sale of fireplace or stove wood.

**2.4.1.4. Flavoring Chips.** – Any kindling, logs, boards, timbers, or other natural or processed, split or unsplit wood that is advertised, offered for sale, or sold for flavoring smoked or barbequed foods.  
(Added 1999)

**2.4.2. Identity.** – A representation may include a declaration of identity that indicates the species group (for example, 50 % hickory, 50 % miscellaneous softwood). Such a representation shall indicate, within 10 % accuracy, the percentages of each group.

**2.4.3. Quantity.** – Fireplace and stove wood shall be advertised, offered for sale, and sold only by measure, using the term “cord” and fractional parts of a cord or the cubic meter, except that:

(a) **Packaged natural wood.** – Natural wood offered for sale in packaged form in quantities less than 0.45 m<sup>3</sup> (<sup>1</sup>/<sub>8</sub> cord or 16 ft<sup>3</sup>) shall display the quantity in terms of:

(1) liters, including ~~to include~~ fractions or multiples of the liter. A net quantity of contents declaration may also include a declaration of quantity in ~~terms~~ units of the cubic foot ~~or feet to include~~ fractions or multiples of a-cubic foot (i.e., cubic feet).  
(Amended 2010, ~~and~~ 2016, and 20XX)

*NOTE: Implementation for the requirement for use of the liter in (1); packages may continue to show the cubic decimeter (dm<sup>3</sup>) instead of liters (L) for four years after the effective date of this regulation to allow for the use of current packages inventories.*

Effective date of enforcement shall be January 1, 2021.

(Added 2016) (Amended 2019 and 20XX)

(b) **Artificial compressed or processed logs products.** – ~~A single fireplace log shall be sold by weight, and packages of such individual logs.~~ Logs, bricks, or other shaped products larger greater than 15 cm (6 in) in any dimension shall be sold by weight plus count.  
(Amended 20XX)



(c) **Stove wood pellets or chips.** – Pellets or chips not greater than 15 cm (6 in) in any dimension shall be sold by weight. This requirement does not apply to flavoring chips.  
(Amended 1976 and 1991)

(d) **Flavoring chips.** – Flavoring chips offered for sale in packaged form in quantities less than 0.45 m<sup>3</sup> (1/8 cord or 16 ft<sup>3</sup>) shall display the quantity in terms of:

- (1) liters, including ~~to include~~ fractions or multiples of the liter. A net quantity of contents declaration may also include a declaration of quantity in ~~terms~~ units of the cubic foot ~~or feet to include~~ fractions or multiples of a-cubic foot (i.e., cubic feet).

(Added 1998) (Amended 2010, ~~and~~ 2016, and 20XX)

**NOTE:** *In determining the appropriate Method of Sale, a clear distinction must be made as to whether the wood is being sold primarily as fuel (some wood is sold as fuel but flavoring is a byproduct) or strictly as a wood flavoring.*

(Added 2010)

(Amended 1976, 1991, 1998, 2010, ~~and~~ 2016 and 20XX)

**2.4.4. Prohibition of Terms.** – The terms “face cord,” “rack,” “pile,” “truckload,” or terms of similar import shall not be used when advertising, offering for sale, or selling wood for use as fuel.

**2.4.5. Delivery Ticket or Sales Invoice.** – A delivery ticket or sales invoice shall be presented by the seller to the purchaser whenever any non-packaged fireplace or stove wood is sold. The delivery ticket or sales invoice shall contain at least the following information:

- (a) the name and address of the vendor;
  - (b) the name and address of the purchaser;
  - (c) the date delivered;
  - (d) the quantity delivered and the quantity upon which the price is based, if this differs from the delivered quantity;
  - (e) the price of the amount delivered; and
  - (f) the identity, in the most descriptive terms commercially practicable, including any quality representation made in connection with the sale.
- (Added 1975)

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

**MOS-22.4 V Section 2.16. Compressed or Liquefied Gasses in Refillable Cylinders.**

**Source:**

NIST, Office of Weights and Measures

**Purpose:**

Update the Method of Sale of Commodities Regulation, Section 2.16. Compressed or Liquefied Gases in Refillable Cylinders.

**Item Under Consideration:**

Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

**2.16. Compressed or Liquefied Gases in Refillable Cylinders.**

**2.16.1. Application.** – This section does not apply to disposable cylinders of compressed or liquefied gases.

**2.16.2. Net Contents.** – The net contents shall be expressed in terms of cubic ~~volume or weight. meters or~~  
~~cubic feet, kilograms, or pounds and ounces.~~ **For liquefied petroleum gas (LPG),** see Section 2.21.  
Liquefied Petroleum Gas for permitted units of measure expressions of for declarations for net quantity  
of contents ~~for liquefied petroleum gas.~~ A standard cubic foot of gas is defined as a cubic foot at a  
temperature of 21 °C (70 °F) and a pressure of 101.35 kilopascals (14.696 psia), except for liquefied  
petroleum gas as stated in Section 2.21. Liquefied Petroleum Gas.

**2.16.3. Cylinder Labeling.** – Whenever cylinders are used for the sale of compressed or liquefied gases by  
weight, or are filled by weight and converted to volume, the following shall apply:

**2.16.3.1. Tare weights.**

(a) **Stamped or Stenciled Tare Weight.** – For safety purposes, the tare weight shall be legibly  
and permanently stamped or stenciled on the cylinder. All tare weight values shall be  
preceded by the letters “TW” or the words “tare weight.” The tare weight shall include the  
weight of the cylinder (including paint), valve, and other permanent attachments. The weight  
of a protective cap shall not be included in tare or gross weights. The 49 CFR 178.35  
“General Requirements for Specification Cylinders” requires the maker of cylinders to retain  
test reports verifying the cylinder tare weight accuracy ~~to a tolerance of 1%.~~

(b) **Tare Weight for Purposes of Determining the Net Contents.** – The tare weight used in the  
determination of the final net contents may be either:

(1) the stamped or stenciled tare weight; or

(2) the actual tare determined at the time of filling the cylinder. If the actual tare is determined  
at the time of filling the cylinder, it must be legibly marked on the cylinder. ~~or on a tag~~  
~~attached to the cylinder at the time of filling.~~

(c) **Allowable Difference.** – If the stamped or stenciled tare is used to determine the net contents of  
the cylinder, the allowable difference between the actual tare weight and the stamped (or  
stenciled) tare weight, or the tare weight on a tag attached to the cylinder for a new or used  
cylinder, shall be within:

(1)  $\frac{1}{2}$  % for tare weights of 9 kg (20 lb) or less; or

(2)  $\frac{1}{4}$  % for tare weights of more than 9 kg (20 lb).

**Note: Failure of a cylinder tare weight to be within the required allowable difference is considered a Method of Sale violation. The cylinder shall be removed from use until the tare weight is corrected.**

(d) **Average requirement.** – When used to determine the net contents of cylinders, the stamped or stenciled tare weights of cylinders at a single place of business found to be in error predominantly in a direction favorable to the seller and near the allowable difference limit shall be considered to be not in conformance with these requirements.

(e) **Tare Determination.-** The stamped or stenciled tare without applying the allowable difference in (c) above shall be used for purposes of verifying the net contents unless the actual tare weight is determined, then the actual tare weight shall be used for purposes of net content verification. The removable protective cap and label are not included in the stamped or stenciled tare but must be included in the total tare determinations.

#### **2.16.3.2. Water Capacity Weight (WC).**

**The water capacity of the cylinder, used to determine the maximum filling level of a cylinder, must be marked on the cylinder at the time of manufacture. The water capacity shall be abbreviated WC. The water capacity for a cylinder 11.34 kg (25 lb) water capacity or less, shall be allowed an allowable difference of – 1 % and no plus allowance; or for a cylinder exceeding 11.34 kg (25 lb) water capacity, an allowable difference of – 0.5 % and no plus allowance.**

**(Added 20XX)**

**2.16.3.23. Acetylene Gas Cylinder Tare Weights.** – Acetone in the cylinder shall be included as part of the tare weight.

**2.16.3.34. Acetylene Gas Cylinder Volumes.** – The volumes of acetylene shall be determined from the product weight using **NIST Standard Reference Database 23 “Reference Fluid Thermodynamic and Transport Properties Database” (REFPROP)** (see [www.nist.gov/srd/refprop](http://www.nist.gov/srd/refprop)) (Note: Weights and measures officials should contact the NIST Office of Weights and Measures at (301) 975-4004 or [owm@nist.gov](mailto:owm@nist.gov) for access to the database.) ~~and supplemented by additional procedures approved tables such as those published by in NIST Handbook 133~~ or those developed using 70 °F (21 °C) and 14.7 ft<sup>3</sup> (101.35 kPa) per pound at 1 atmosphere as conversion factors.

**2.16.3.45. Compressed Gases such as Oxygen, Argon, Nitrogen, Helium, and Hydrogen.** – The volumes of compressed gases such as oxygen, argon, nitrogen, helium, or hydrogen shall be determined using NIST Standard Reference Database 23 “Reference Fluid Thermodynamic and Transport Properties Database” (REFPROP) (see [www.nist.gov/srd/refprop](http://www.nist.gov/srd/refprop)) (Note: Weights and measures officials should contact the NIST Office of Weights and Measures at (301) 975-4004 or [owm@nist.gov](mailto:owm@nist.gov) for access to the database.) and supplemented by additional procedures ~~and tables in NIST Handbook 133.~~

(Added) 1981) (Amended 1990 **and 20XX**)

#### **Previous Action:**

N/A

#### **Arguments in Favor:**

##### **Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- Concern was raised about referring the user to NIST OWM for the approved tables and opposition to incorporating them into NIST Handbook 133 instead of having the information available in the handbook.
- Many regulators expressed a concern about the changes in TW tolerances by DOT and the lack of data to support them. The Committee heard that substantial increase in those tolerances not only conflict with current ones adopted by the NCWM they also bring uncertainty about the impact they may have in the market for both the industry and consumers, and possible safety issues like appropriate cylinder filling levels.

**Industry:**

- None

**Advisory:**

- An OWM technical advisor indicated that it is believed DOT failed to take into account consideration of existing state tare weight allowances as outlined in NIST Handbook 130 Method of Sale for LPG.

**Neutral Comments:**

**Regulatory:**

After the Committee removed the DOT tare weights from the item, comments shifted from “against” to “neutral.” The Committee heard several neutral comments about DOT’s tare weight change and lack of data to support. It was suggested that a study be conducted to validate the proposed DOT tare weight change.

**Industry:**

- None

**Advisory:**

- OWM expressed concern that the economic impact of the change has not been considered.

**Item Development:**

The Committee assigned Voting status for this item at the 2022 Interim Meeting.

The Committee heard concerns during the open hearings about referring the user to NIST OWM for the approved tables and opposition to incorporating them into Handbook 133. Based on this concern the Committee amended the language and heard from members who initially raised the concern that the changes made by the Committee addressed their original concern.

Several regulators concurred on waiting for the NCWM National Survey on 20-lb Cylinders of Propane results to see if they warrant a petition to DOT to reconsider the changes. Based on this, the part proposing alignment of the tare weight allowances in Handbooks with the ones approved by DOT has been removed from this item. The committee agreed on moving forward the rest of the item with some editorial changes.

The Committee assigned Voting status to this item because while concern was expressed about the new DOT tare weight allowable differences, no one spoke in complete opposition to the item. Additionally, the Committee is awaiting the outcome of the NCWM National survey on 20-lb cylinders of propane and that the item is fully developed and ready for a vote.

**Original Justification:**

Add language to update and to align with Department of Transportation (DOT) Final Rule [Federal Register Volume 85, Number 248 (Monday, December 28, 2020)][Rules and Regulations](See [2020-26264.pdf \(govinfo.gov\)](#)) [Pages 85380-85437] regarding new requirements for the sale of LPG cylinders which is enforceable after December 28, 2022.

The submitter does not believe there will be opposition to this proposal since it is aligning with Federal regulations.

The submitter requested that this be a Voting Item in 2022.

**Regional Associations' Comments:**

WWMA 2021 Annual Meeting: Ms. Lisa Warfield, (NIST OWM) – Provided testimony that these proposed amendments are to avoid conflicts between the tare weight and other labeling requirements for compressed gas cylinders in the Method of Sale of Commodities Regulation and similar Federal regulations published by the U.S. Department of Transportation (DOT). If the conflicting provisions in NIST Handbook 130 are not revised before December 28, 2022, it is likely that the conflicting requirements in the Method of Sale of Commodities Regulation will be found by a court to be preempted by the DOT regulations. This is due to Congress giving DOT the exclusive authority to regulate in this area of law (e.g., safety and interstate commerce).

The Committee recommends this as a Voting Item with the language as it appears in the agenda, and have an effective date of December 28, 2022

SWMA 2021 Annual Meeting: Mr. Steve Benjamin (State of North Carolina) provided an informational update of this item. Mr. Don Onwiler (NCWM) solicited survey participation and requested that those interested provide their contact information to NCWM. Mr. Tim Chesser (State of Arkansas) expressed his disagreement with the statement “Failure of a cylinder tare weight to be within the required allowable difference is considered a Method of Sale violation.” In his opinion this is not a method of sale violation and would not apply to the State of Arkansas. NIST OWM provided written analysis recommending this proposal to be a Voting item and that an effective date of these amendments be December 28, 2022, so they are effective on the same date as the new DOT regulations.

The Committee believes this item has merit and is fully developed. The Committee recommends this item as a Voting item and take into consideration the effective date as recommended by NIST OWM.

CWMA 2021 Interim Meeting: Lisa Warfield, NIST Technical Advisor commented that OWM submitted these items to avoid conflicts between various federal entities and the method of sale section of the handbook. OWM recommends this proposal be a voting item, and the implementation date be December 2022 to align with the U.S. Department of Transportation. Doug Musick, Kansas commented that under tare weights, item C.1 the words “an empty” be added to improve the proposed language. He also asked if this requirement for marking a cylinder is the responsibility of the inspector or the entity selling the cylinder. Charlie Stutesman, Kansas asked for clarification on this item. Ms. Warfield responded that aligning the language in the handbook with USDOT is important, and if USDOT is asked to revise their language related to the sale of LP, it would likely be an arduous and time-consuming process. Ivan Hankins, Iowa commented that NIST and USDOT are discussing this issue and would like input from states. Mr. Stutesman further commented that he believes that while the USDOT rules are posted for comment, he is unsure how many states have read the proposed regulation and know how it affects their specific jurisdictions. He asks the L&R Committee to move cautiously on this item. Ms. Warfield commented that there is additional information in the analysis NIST submitted to NCWM and the regions for each item on the agenda. Based on the time-sensitive nature of this item, the Committee believes the item is ready for voting status with the proposed change to item C.1.

NEWMA 2021 Interim Meeting: David Sefcik (NIST Technical Advisor) commented that this proposal was submitted to reflect new DOT requirements regarding the allowable difference between the stamped tare on an LPG cylinder and the actual tare. This new requirement takes effect December 28, 2022. This language will ensure that the method of sale in NIST HB130 for compressed or liquified gases in refillable cylinders does not conflict with these new federal requirements. Mr. Jim Willis (New York) asked to clarify how the tare weights would be tested without evacuating the cylinder during the test. Mr. Sefcik commented that to verify the stamped or accuracy statement of a tare weight, it should be done in the lab or at the plant with the assistance of a trained professional, rather than in the field. The Committee recommends the item as a Voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

## **MOS-20.5            V    Section 2.21. Liquefied Petroleum Gas**

### **Source:**

Arizona Department of Agriculture, Weights and Measures Services Division

### **Purpose:**

Provide clarity and consistency regarding the method of sale (MOS) for liquefied petroleum gas (LPG) through a meter that has a maximum rated capacity of 20 gal/min or less.

### **Item Under Consideration:**

Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

## **2.21. Liquefied Petroleum Gas.**

**2.21.1. Method of Sale.** – All liquefied petroleum gas, including, but not limited to propane, butane, and mixtures thereof, shall be kept, offered, exposed for sale, or sold by the following methods of sale. If kept, offered, exposed for sale, or sold by:

**(a) Weight:** by the kilogram or pound; or by,

**(b) Gaseous Volume:** by the metered cubic meter of vapor (defined as 1 m<sup>3</sup> at 15 °C); or metered cubic foot of vapor (defined as 1 ft<sup>3</sup> at 60 °F) [See Section 2.21. Note]; or by,

**(c) Liquid:** by the liter (defined as 1 liter at 15 °C) or the gallon (defined as 231 in<sup>3</sup> at 60 °F). ~~All metered sales by the or gallon, except those using meters with a maximum rated capacity of (20 gal)/min or less, shall be accomplished by use of a meter and device that automatically compensates for temperature.~~

**2.21.2. Metered Sales by Liquid Volume.** – All metered sales by liquid volume shall be accomplished using metering systems as follows:

**(a) Sales using metering systems with a maximum rated capacity greater than 20 gal/min shall be accomplished using a metering system that automatically compensates for the effects of temperature.**

**(b) Sales using metering systems with a maximum rated capacity equal to or less than 20 gal/min that were placed into service after January 1, 2026 shall be accomplished by use of a metering system that automatically compensates for the effects of temperature.**

**(c) Effective January 1, 2030, all metered sales (through all capacities of metering devices, regardless of installation and service date) shall be accomplished by use of a metering system that automatically compensates for temperature.**

Section 2.21. NOTE: Sources: ~~American National Standards Institute, Inc.,~~ ANSI B109.1 (20082000), "~~American National Standard~~ For Diaphragm-Type Gas Displacement Meters (~~14.16 Cubic Meters~~ Under 500 Cubic Feet] Per Hour Capacity ~~and Under~~)," and NIST Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices."  
(Added 1986, Amended 20XX)

#### Arguments in Favor:

##### Regulatory:

- Some regulators spoke in favor of moving the item forward as voting stating it is easy to understand while trying to compensate for temperature manually is challenging.
- Industry:
  - The National Propane Gas Association supported with date changes.

##### Advisory:

- None

#### Arguments Against:

##### Regulatory:

- One regulator opposed the item moving forward as voting stating that the small variance in gross and net quantities makes it unnecessary. This was challenged by another regulator who stated that the variances due to temperature variations in his state made it necessary.

##### Industry:

- None

##### Advisory:

- None

#### Neutral Comments:

##### Regulatory:

- A regulator suggested requiring an interlock mechanism.

##### Industry:

- None

##### Advisory:

- None

#### Item Development:

The Committee assigned Voting status for this item at the 2022 Interim Meeting and extended the effective dates to address concerns expressed during the open hearings.

The Committee assigned Voting status to this item because there was support for it and only one regulator spoke against it. Additionally, the National Propane Gas Association supported the item provided the effective dates were extended. The Committee made this change.

**Background/Discussion:**

There appears to be a lack of clarity and consistency regarding the method of sale (MOS) for liquefied petroleum gas (LPG) through a meter that has a maximum rated capacity of 20 gal/min or less. The Uniform Regulation for the Method of Sale of Commodities, Section 2.2. Liquefied Petroleum Gas specifically exempts these meters from the use of automatic temperature compensation but defines a gallon as 231 in<sup>3</sup> at 60 °F [15.6 °C]. With this definition, it can be interpreted that, while automatic temperature compensation is not required, the sale of LPG shall be temperature compensated through manual means (or alternatively sold by weight). Temperature compensation manually requires the use temperature readings and a chart to manually perform conversions to determine the volume sold.

When discussing potential implementation of these requirements, propane industry officials in Arizona noted that other states do not require sale of LPG through these smaller meters to be temperature compensated or sold by weight and cited numerous problems with manual calibration or changing the MOS to sell by weight. An informal survey of western states appears to support that most do not enforce this requirement to sell LPG through these smaller meters by weight or temperature compensated.

Due to the inconsistency with the method of sale between various states and interpretation of this section, it is being proposed to exempt the sale of LPG through these smaller meters from temperature compensation. The item is proposed developing to allow for discussion and submittal of supporting cost analysis and impact to consumers and businesses that supports a requirement to sell LPG through these small meters as temperature compensated (or by weight).

The submitter noted that the sale of propane that is not temperature compensated can vary in quantities dispensed, which may provide a business or consumer with more or less product than stated.

NCWM 2020 Interim Meeting: Mr. Tim Chesser (AR) felt that the current proposal conflicts with language in Handbook 44. Ms. Tina Butcher (NIST OWM) responded the current language in Handbook 44 does not conflict with the language in this item, referencing language from Handbook 44 stating “If a device is equipped with an automatic temperature compensator.” This suggests that language in Handbook 44 does not require modification to accommodate devices with automatic temperature compensation capabilities. Mr. Constantine Cotsoradis (Flint Hill Resources) questioned if this proposal would have any benefit for consumers. Representing the submitter, Mr. Vince Wolpert (AZ) stated that temperature in the state ranges from 32 to 100 degrees Fahrenheit and volume delivered for LP sales varies accordingly. As a result of the lack of consistency with volume delivered the state receives a lot of complaints concerning LP sales. Several regulators commented that the most equitable way to address the issue is to require automatic temperature compensation for all sales. The original submitter received feedback from the fall regions and modified the language (dated January 24, 2020). The submitter, Ms. Wilson recommended this modified language be vetted through the regional meetings and industry for consideration. Currently, the Committee concurs with the recommendation and moved this item forward as the Item Under Consideration as Informational.

On the 2020 NCWM Interim Agenda the item under consideration appeared as:

**2.21. Liquefied Petroleum Gas.** – All liquefied petroleum gas, including, but not limited to propane, butane, and mixtures thereof, shall be kept, offered, exposed for sale, or sold by the pound, metered cubic foot [<sup>NOTE 7, page 132</sup> of vapor (defined as 1 ft<sup>3</sup> at 60 °F [15.6 °C]), or the gallon (defined as 231 in<sup>3</sup> at 60 °F [15.6 °C]). All metered sales by the gallon, except those using meters with a maximum rated capacity of 20 gal/min or less, shall be accomplished by use of a meter and device that automatically compensates for temperature. **Metered sales using a meter with a maximum rated capacity of 20 gal/min or less is exempt from temperature compensation requirements.**

(Added 1986 **Amended 20XX**)

NCWM 2021 Interim Meeting: The language within NCWM Publication 15 appeared as:

**2.21. Liquefied Petroleum Gas.** – All liquefied petroleum gas, including, but not limited to propane, butane, and mixtures thereof, shall be kept, offered, exposed for sale, or sold by the pound, metered cubic foot [<sup>NOTE 7, page 132</sup>



of vapor (defined as 1 ft<sup>3</sup> at 60 °F [15.6 °C]), or the gallon (defined as 231 in<sup>3</sup> at 60 °F [15.6 °C]). ~~All metered sales by the gallon, except those using meters with a maximum rated capacity of 20 gal/min or less, shall be accomplished by use of a meter and device that automatically compensates for temperature.~~

(a) All metered sales by the gallon using a meter with a maximum rated capacity greater than 20 gal/min, shall be accomplished using a meter and device that automatically compensates for temperature.

(b) For equipment placed in service on or after January 1, 2023, all metered sales using a meter with a maximum rated capacity of 20 gal/min or less shall be accomplished by use of a meter and device that automatically compensates for temperature.

(c) Effective January 1, 2030, all metered sales shall be accomplished by use of a meter and device that automatically compensates for temperature.

(Added 1986 Amended 20XX)

Mr. Chesser commented his concern with conflicts between the method of sale and Handbook 44 requirements. Ms. Tina Butcher (NIST OWM) addressed questions that were stated within the reporting for this item. Ms. Butcher also provided an in-depth background and discussion on this item. It was noted that NIST OWM submitted modified language that was posted under the NCWM L&R supporting documents.

Some of the bullet points that were in the NIST analysis of this item were:

- The existing language references a value of “15.6 °C” for temperature determinations in metric units, according to the current industry practice for sales of petroleum products, the reference temperature for sales in metric are based on 15 °C rather than the exact conversion from 60 °F (which is 15.6 °C). Thus, the temperature reference in metric should be 15 °C.
- The current method of sale for LPG requires sales based on a specified reference temperature because of the significant effects of temperature on the volume of LPG. This helps ensure equity for buyer and seller; facilitate value comparisons among competing applications; and deter those who would take advantage of the effects of temperature on volume from using these effects to their advantage during sales under given temperature conditions.
- There is some concern that including effective dates as shown in the Item Under Consideration does have the effect of rescinding the original requirement for certain categories of sales. Additionally, specifying such dates may possibly lead to future extensions of these date or permanent exceptions. However, if this proposal will allow the community to progress toward more uniform implementation of temperature compensation in the commercial measurement of LPG, this approach may prove to be a valuable tool for accomplishing this goal and improve understanding and consistent application of the requirements, and we believe the submitter is to be commended for striving to achieve this clarity and uniformity in application.
- The second clause of the current Item Under Consideration addresses equipment put into service as of January 1, 2023. The generic reference to “equipment placed into service” implies that only newly installed equipment with flow rates of 20 gpm or less needs to include automatic temperature compensation capabilities. This could be misconstrued as negating the first clause in the proposal. We believe the intent of the submitter was to simply expand the requirement for “automatic” temperature compensation capability for metering systems above 20 gpm to include those systems below this flow rate point. Thus, a recommended alternative is included in the suggested changes.

Formatting Changes:

- By formatting the language into sub-sections, it makes the method of sale requirement easier to follow and apply and facilitates consideration of the Item Under Consideration.

- For the next released edition of Handbook 130, NIST OWM will be reformatting the references to “Notes” and their associated page numbers and replacing these with notes formatted as “Section ##. Note.”

Mr. Scott Simmons (Colorado) led a discussion regarding some of the issues that his state has faced regarding LPG sales. Mr. Simmons and many other regulators expressed support for this Item. It was expressed that many were unaware of the NIST modified proposal. L&R Chair McGuire encouraged membership to review the NIST proposal. During the Committee work session both the original and NIST proposals were discussed. A Committee member expressed concern that industry may be unaware of this agenda item. Several Committee members commented that they would reach out to their industry contacts to alert them. The Committee heard many comments that they supported the NIST proposal. The Committee was appreciative that NIST had reformatted the structure to make the language easier to read. The Committee recommends this move forward as a Voting item.

NCWM 2021 Annual Meeting: Mr. Swiecicki (NPGA) expressed concern with the language for temperature compensation and how the mechanical devices have a lag in correcting the temperature. Mr. Swiecicki did request that the date in Section 2.21.2.(b) be moved to 2025, or at least another year added. Mr. Schnepf (CA) remarked that in Section 2.21.2.(a) the language should read “equal to or greater than” to align with NIST HB44 language. Mr. Allen (AZ) was supportive of the changes from Mr. Schnepf. Mr. Willis (NY) rose to oppose this item and believes this item is detrimental to the propane industry. Mr. Willis remarked that they are done by weight and the temperature compensation is an issue with the smaller tanks. Mr. Ramsburg (MD) asked the committee to withdraw the item.

Based on testimony during open hearings and reviewing the documents from the regional meetings, the Committee changed the effective date in Section 2.21.2.(b) from January 1, 2023 until January 1, 2024. In Sections 2.21.2. (a), (b) and (c) replaced the words “meter and device” with “metering system.” The Committee concurred with Mr. Schnepf’s recommendation to modify the language in Section 2.21.2.(a) to replace the words “greater than or equal to” with “equal to or greater than”. This item did appear as a Voting Item at the 2021 NCWM Annual Meeting but did not garner enough votes, it was therefore returned to the Committee.

#### Regional Associations’ Comments:

WWMA 2021 Annual Meeting: Mr. Bruce Swiecicki, (NPGA) – Provided testimony that highlighted concerns from the background information in the agenda. He commented that with meters dispensing at less than 20 gallons per minute, automatic temperature compensation would have a minimal effect on small deliveries. Mr. Swiecicki also commented on the financial burden that would be placed on industry to convert to automatic temperature compensation. Mr. Matt Douglas, (CDFA-DMS) – Provided testimony that they support the item and there is redundant language that requires editing.

The Committee recommends this as a Voting Item with the following editorial changes and a change in effective date from January 1, 2024 to January 1, 2025:

### 2.21. Liquefied Petroleum Gas.

**2.21.1. Method of Sale.** – All liquefied petroleum gas, including, but not limited to propane, butane, and mixtures thereof, shall be kept, offered, exposed for sale, or sold ~~by in accordance with the following methods of sale and conditions. If kept, offered, exposed for sale, or sold by:~~ following

(a) **Weight:** by the kilogram or pound; ~~or by,~~

(b) **Gaseous Volume:** by the metered cubic meter of vapor (defined as 1 m<sup>3</sup> at 15 °C); or metered cubic foot of vapor (defined as 1 ft<sup>3</sup> at 60 °F) ~~[See Section 2.21. Note]; or by,~~

(c) **Liquid:** by the liter (defined as 1 liter at 15 °C) or the gallon (defined as 231 in<sup>3</sup> at 60 °F). ~~All metered sales by the or gallon, except those using meters with a maximum rated capacity of (20 gal)/min or less, shall be accomplished by use of a meter and device that automatically compensates for temperature.~~

**2.21.2. Metered Sales by Liquid Volume. – All metered sales by liquid volume shall be accomplished using metering systems as follows:**

**(a) Sales using metering systems with a maximum rated capacity equal to or greater than 20 gal/min shall be accomplished by the use of a metering system that automatically compensates for temperature.**

**(b) Sales using metering systems with a maximum rated capacity less than 20 gal/min that were placed into service after January 1, 2025 shall be accomplished by use of a metering system that automatically compensates for the effects of temperature.**

**(c) Effective January 1, 2030, all metered sales (through all capacities of metering devices, regardless of installation and service date) shall be accomplished by use of a metering system that automatically compensates for temperature.**

*Section 2.21. NOTE: Sources: ~~American National Standards Institute, Inc.~~, ANSI B109.1 (20082000), ~~“American National Standard For Diaphragm-Type Gas Displacement Meters (14.16 Cubic Meters Under 500 Cubic Feet Per Hour Capacity and Under),”~~ and NIST Handbook 44, “Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices.”*

(Added 1986, Amended 20XX)

WWMA L&R Committee believes this item is fully developed, the Committee has the following concerns:

- The potential lack of effectiveness of automatic temperature compensation on short deliveries.
- The financial burden on device operators that would be affected by the proposed changes.
- Would like to hear reasons for lack of supporting votes

SWMA 2021 Annual Meeting: NIST OWM provided a written analysis that this proposal is fully developed, and consideration should be given to delaying the effective date until January 1, 2025. Mr. Tim Chesser (State of Arkansas) spoke in support of this item as long as the language is amended to an effective date of January 1, 2025.

The Committee believes this is fully developed and recommends this as a Voting item with an effective date of January 1, 2025.

CWMA 2021 Interim Meeting: Ivan Hankins, Iowa commented that the Western and the Southern regions are recommending this item to be a voting item which allows for temperature compensation on 20 or less gpm meters. Charlie Stutesman, Kansas commented that he believes the 2025 date is a more appropriate date for new meters rather than 2024, and all other devices be switched by 2030. He further commented that he supports getting compensators on the meters, particularly at retail sites where staff may not be properly trained on how to figure the compensated volume. The Committee believes that if this item is passed in 2022, the proposed 2024 date is a sufficient time to implement changes for new meters. The Committee believes this item is fully vetted and ready for voting status.

NEWMA 2021 Interim Meeting: John McGuire (New Jersey) commented that there were changes made from the 2021 WWMA Annual Meeting L&R Report compared to the original submission. He believes the changes are helpful and would like to hear the opinions of other states. Mr. Jim Willis (New York) commented that he spoke to the submitter regarding the equivalency comparison to the gallon. Mr. Willis does not support this change. Mr. McGuire commented that those opposed to the item should indicate alternative options to verify volume. Mr. McGuire believes the item is ready for Voting status and believes that all metered sales by liquid volume should be sold by temperature compensation. Mr. David Sefcik (NIST Technical Advisor) agrees with Mr. McGuire that states that did not support this item previously, need to clarify their reasons for not supporting it. Mr. Walt Remmert (Pennsylvania) agreed with Mr. Willis that the original language was sufficient and does not need to be changed. Mr. Bruce Sweickicki (NPG), agrees that this item is unnecessary. He believes that the meters being used to determine volume are mechanical in nature and not precise enough for grill containers. Ms. Cheryl Ayer (New Hampshire) also opposed this item. Ms. Tina Butcher (NIST OWM) commented that she agreed with Mr. McGuire and the original method of sale language

referred to compensated temperature. Mr. Willis recommends the item be withdrawn. Mr. Jim Cassidy (Massachusetts) commented that since there is no consensus, he believes the item is not ready for Voting status. Mr. Ivan Hankins (NCWM Chair and State of Iowa,) commented that the exception for cylinders under 20 pounds has been in the Handbook since 1986 and believes it is best to sell all LPG using temperature compensation. Ms. Butcher commented that the method of sale statement does not exclude automatic temperature compensation and it is simply in the second or alternative method of sale that appears after the original method of sale statement. Chairman Sakin commented that this item should have explicit clarity to avoid unintended consequences for small cylinders under 20 pounds. Mr. McGuire recommends Developing status for this item. The Committee concurs that this be recommended as a Developing Item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

**MOS-22.5            V    Section 2.31.2.1. Labeling of Grade Required. and 2.31.2.2. EPA Labeling Requirements Also Apply.**

**Source:**

National Biodiesel Board (NBB)

**Purpose:**

To correct Part B. Uniform Regulation for the Method of Sale of Commodities and keep consistent with federal and industry requirements.

**Item Under Consideration:**

Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

**2.31.2.1. Labeling of Grade Required. – ~~Biodiesel shall be identified by the grades S15 or S500. biodiesel blends shall be identified by the grades No. 1-D, No. 2-D, or No. 4-D.~~** Biodiesel and biodiesel blends shall be identified in accordance with both EPA and FTC requirements.

**~~2.31.2.2. EPA Labeling Requirements Also Apply. – Retailers and wholesale purchaser consumers of biodiesel blends shall comply with EPA pump labeling requirements for sulfur under 40 CFR 80.570.~~**

**Previous Action:**

N/A

**Arguments in Favor:**

**Regulatory:**

- FALS recommended this to be a voting item and stated it was a cleanup item.
- A regulator recommended it to be a voting item.

**Industry:**

- None

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee assigned Voting status for this item at the 2022 Interim meeting.

The Committee assigned Voting status for this item because it heard support for it and no opposition. The Committee believes the item is fully developed.

**Regional Associations' Comments:**

WWMA 2021 Annual Meeting: Russ Lewis, (Marathon, representing API) – Supports this proposal.

The Committee recommends this as a Voting Item. The Committee also recommends that the FALS Subcommittee look at the OWM analysis supporting documentation for possible formatting of the citation to the Code of Federal Regulations throughout NIST Handbook 130.

**Original Justification:**

Sulfur regulations have changed so that ONLY ultra-low sulfur fuels (maximum 15ppm sulfur) are allowed for sale at retail dispensers. S500 biodiesel is no longer allowed to be sold at retail. Likewise, biodiesel blends must meet the ASTM D7467 (B6-B20) specifications. The limits and allowances in D7467 do not include Grades 1-D, 2-D, or 4-D. The reference to 40 CFR 80.570 was only applicable for retail diesel fuels from 6/1/2006 until 11/30/2010.

The submitter requested that this be a Voting Item in 2022.

SWMA 2021 Annual Meeting: Mr. Prentiss Searles (API) spoke in support of this item. NIST OWM provided a written analysis that recommended this as a Voting item and the NCWM L&R should consider including specific EPA and FTC product identity citations (and any other specific industry standards).

The Committee believes this item has merit and is fully developed. The Committee recommends this item as a Voting item

CWMA 2021 Interim Meeting: Randy Jennings representing the National Biodiesel Board explained that the information currently in the handbook is not accurate and is outdated. He further commented that there are no requirements for labeling diesel in Handbook 130, and more work needs to be done when referencing federal regulations in the handbook. Doug Musick, Kansas supports removing the irrelevant information. He has concerns that if there are specific EPA and FTC requirements, the relevant references should be included in the handbook. Mr. Jennings commented that NBB is committed to further work on this section of the handbook. Mr. Musick supports the concept of striking all the language in the section. Charlie Stutesman, Kansas commented that he supports the initial action of striking the inaccurate information, but he would also like to see citation references to EPA and/or

FTC. He believes grade information should appear in the Uniform Fuels and Automotive Lubricants Regulation section of the Handbook rather than the Method of Sale section. Mike Harrington, Iowa commented that he supports this item move forward as a voting item, as well as future work in this area. Lisa Warfield, NIST Technical Advisor commented that if the federal regulation is cited, NIST would support the item. Kristy Moore, Growth Energy commented that she is unsure if section 3.1 applies to all fuels, and then subsequent sections are specified by fuel type. She asked for clarity on this item. She further commented that we have these requirements on renewable fuels but not on fossil fuels. Chuck Corr, Iowa Renewable Fuels Association commented that this item as well as other items appearing in the Method of Sale section need further work. Based on comments during open hearings the Committee believes this item is fully developed and ready for voting status.

**NEWMA 2021 Interim Meeting:** Mr. Chuck Corr (Iowa Renewable Fuels Association) believes this item needs additional development and provided comments:

1. The requirements in questions seem applicable to all diesel fuels.
2. The current wording in 2.31.2.2 begins with the phrase “Retailers and wholesale purchaser-consumers ...”. The proposal correctly states that all retail diesel has the same sulfur limit.
  - a. There are some wholesale purchaser-consumer applications that could have higher sulfur limits for these fuels. I believe there is an EPA required sulfur labeling statement for these applications.
4. If this section is only applicable to retail fuels that requirement should be clearly stated. Now is the time to incorporate language for renewable diesel content in the fuels.
5. Question- there is a subsection deleted in the proposal. Is the remaining subsection automatically renumbered or should there be a statement to indicate that remaining subsections would be renumbered? I think the latter would be more transparent.

Mr. Randy Jennings (retired Tennessee) commented that the submitter, Mr. Fenwick submitted this to update this provision of NIST Handbook 130 which includes obsolete language related to sulfur labeling. Mr. Jennings suggested some of the grade language is not up to date. Mr. Jennings commented that diesel fuel regulations does not include grade labeling, so why should other fuels be required to do the same? Chairman Sakin asked if this was an item meant to harmonize Handbook 130 with federal language. Mr. Jennings commented that it is an attempt to harmonize the language, but it is also an opportunity to improve the language and continue work on model language in NIST Handbook 130. Mr. Jennings believes the item is fully developed and ready for Voting status. Mr. Jim Willis (New York) commented that he believes the current information in NIST Handbook 130 is incorrect and recommends Voting status for this item. The Committee concurs and recommends Voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

## **NET – HANDBOOK 133: CHECKING THE NET CONTENT OF PACKAGED GOODS**

### **NET-20.2                      W                      Section 4.5. Polyethylene Sheeting, Bags and Liners.**

#### **Source:**

New York State Weights and Measures

#### **Purpose:**

Remove antiquated terminology used for test equipment to test the thickness of polyethylene sheeting, bags, and liners.

#### **Item Under Consideration:**

Amend Handbook 133 as follows:

#### **4.5. Polyethylene Sheeting, Bags, and Liners**

Most polyethylene products are sold by length, width, thickness, area, and net weight. Accordingly, this procedure includes steps to test for each of these measurements.

(Amended 2017)

#### 4.5.1. Test Equipment

- A scale that meets the requirements in Section 2.2. “Measurement Standards and Test Equipment.”
- Steel tapes and rulers. Determine measurements of length to the nearest division of the appropriate tape or ruler.
  - Metric units:
 

For labeled dimensions 400 mm or less, linear measure: 300 mm in length, 1 mm divisions; or a 1 m ruler with 0.1 mm divisions, overall length tolerance of 0.4 mm.

For labeled dimensions greater than 400 mm, 30 m tape with 1 mm divisions.
  - U.S. customary units:
 

For labeled dimensions 25 in or less, use a 36 in ruler with  $\frac{1}{64}$  in or  $\frac{1}{100}$  in divisions and an overall length tolerance of  $\frac{1}{64}$  in.

For dimensions greater than 25 in, use a 100 ft tape with  $\frac{1}{16}$  in divisions and an overall length tolerance of 0.1 in.
- Deadweight dial micrometer (or equal) equipped with a flat anvil, 6.35 mm or ( $\frac{1}{4}$  in) diameter or larger, and ~~a 4.75 mm ( $\frac{3}{16}$  in) diameter flat surface on the head of the spindle~~ **head with a diameter between 3.20 mm ( $\frac{1}{8}$  in) and 12.70 mm ( $\frac{1}{2}$  in).**

**Note: Electronic or other instruments that provide equivalent accuracy are also permitted.**

- ~~The mass of the probe head (total of anvil, weight 102 g or [3.6 oz], spindle, etc.) must total 113.4 g (4 oz).~~ **The pressure exerted by the instrument should not exceed 70 kPa (10 psi).**
- The anvil and spindle head surfaces should be ground and lapped, parallel to within 0.002 mm (0.0001 in), and should move on an axis perpendicular to their surfaces.
- The dial spindle should be vertical, and the dial should be at least 50.8 mm (2 in) in diameter.
- The dial indicator should be continuously graduated to read directly to 0.002 mm (0.0001 in) and should be capable of making more than one revolution. It must be equipped with a separate indicator to indicate the number of complete revolutions. The dial indicator mechanism should be fully jeweled.
- The frame should be of sufficient rigidity that a load of 1.36 kg (3 lb) applied to the dial housing, exclusive of the weight or spindle presser foot, will not cause a change in indication on the dial of more than 0.02 mm (0.001 in).
- The indicator reading must be repeatable to 0.001 2 mm (0.000 05 in) at zero.
- The micrometer should be operated in an atmosphere free from drafts and fluctuating temperature and should be stabilized at ambient room temperature before use.

**Note: Other instruments are commercially available that utilize different methods of measuring thickness. Instruments of this nature are acceptable provided they meet or exceed the precision requirements noted within the latest version of ASTM D6988 “Guide for Determination of Thickness of Plastic Film Test Specimens” and the requirements of the applicable material or product specification or applicable test standards.**

- Gage blocks covering the range of thicknesses to be tested should be used to check the accuracy of the micrometer

- T-square

**Arguments For:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- Regulators expressed concern that this item lacks data and opposed moving it forward at this time.
- The original submitter shared they understand the concerns but do not have time to further develop the item.

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee assigned Withdrawn status for this item at the 2022 Interim Meeting because the item still needs development and the original submitter stated they did not have time to further develop it.

**Background/Discussion:**

This item has been assigned to the submitter for further development. For more information or to provide comment, please contact:

Mr. Mike Sikula  
New York Department of Agriculture and Markets  
518-457-3452, [mike.sikula@agriculture.ny.gov](mailto:mike.sikula@agriculture.ny.gov)



This will update the test equipment to allow for the use of other type of instruments to perform the test procedure. In addition, it aligns the test equipment within the latest version of ASTM D6988 “Guide for Determination of Thickness of Plastic Film Test Specimens”.

NCWM 2021 Interim Meeting: Mr. Kurt Floren (Los Angeles Co., CA) had concern with the spindle head having a diameter of 3.20 mm and 12.70 mm, due to the type of product being tested as this may create inconsistencies within the thickness. Mr. Floren would like to see data that justified this range. In addition, there are many other instruments that are available in the marketplace to do testing. Mr. Floren had concerns with this item proceeding as currently written. What is the current industry practice with this type of procedure? The Committee would like the submitter to review the recommendations that came out of the fall regional meetings. The submitter should also address any procedural differences between the current procedure and use of an electronic instrument. The Committee recommends this item as a Developing item. Mr. Kevin Schnepf (CA) noted that ASTM D6988 has a maximum pressure of 70 kPa (10 psi) for thinner films and for thicker films, a pressure range between 160 and 185 kPa (23 and 27 psi). Mr. Floren also expressed concerns with the variability in plastics and the striations occur in plastics. The Committees did not have any supporting data or repeatability test and asked that the developer review all the comments within this item by Fall Regional Association Meetings.

NCWM 2021 Annual Meeting: Mr. Willis provided an update that they are planning to do testing to provide data as requested by the Committee and regional associations. Mr. Schnepf further support the development of language and request that it be harmonized with ASTM D6988 for the thicker densities. The Committee continues to encourage the submitter with developing this item by the 2022 NCWM Interim Meeting.

#### **Regional Associations’ Comments:**

CWMA 2021 Annual Meeting: Ms. Lisa Warfield (NIST OWM) commented that the submitter is hoping to have a revision for review at the NCWM Interim Meeting in 2022. Ms. Warfield further commented that the developer requested any comments or recommendations be provided by the Fall Regional Meetings. CWMA believes this item should remain a Developing item until additional data is collected as requested at the NCWM 2021 Interim Meeting

WWMA 2021 Annual Meeting: Mr. Kurt Floren, (County of Los Angeles, CA) – Continues to have major concerns about this item. Proposing to change specifications for the micrometer used to test, anvil shape and size, spindle size, and the properties of the material being tested. Data has not been supplied to support the requested changes. Mr. Floren has recommended keeping this in Developmental status pending supplemental data from Submitter. Mr. Floren specified that if data was not provided by the submitter, the Item should be withdrawn. Mr. Kevin Schnepf, (CDFA-DMS) – Continues to have concerns about different pressure variables and consistency with ASTM D6988.

The Committee recommends that this item be withdrawn as the supporting documentation was not proved by the submitter. The WWMA L&R Committee recommends that supporting data be submitted before the Interim for consideration for future development. WWMA L&R is looking for supporting data that addresses concerns regarding repeatability in tests and variability in tested polyethylene materials. WWMA L&R would like to see data regarding the use of different spindle sizes being proposed and how the varying sizes of spindles affect the reading of the polyethylene thickness with comparative tests on the same sheet of polyethylene. The Committee would also like to see data regarding the repeatability of these tests

SWMA 2021 Annual Meeting: No comments were heard during open hearings. NIST OWM provided a written analysis that stated their continued support of the development of this proposal. OWM recommended that the submitter also contact ASTM to provided clarification and/or guidance on how the test method was intended to be used. The SWMA L&R Committee did receive supporting data from the submitter.

The Committee recommends the item remain as a Developing item.

CWMA 2021 Interim Meeting: No comments were heard. The submitter of this item provided additional supporting data. Based on the submission of some data but the need for more, the Committee believes this item should remain on the agenda as a developing item.

NEWMA 2021 Interim Meeting: Mr. Jim Willis (New York) commented at the 2021 NEWMA Interim Meeting that he submitted data from a field test and encourages everyone to review it. The current procedure has testing equipment which used in the testing methodology is antiquated and not available to most inspectors. Mr. Jim Cassidy (Massachusetts) suggested training on polyethylene testing for the 2022 NEWMA Annual Meeting. Chairman Sakin commented that the 2021 WWMA L&R Annual Report suggested the item be withdrawn. Mr. Willis commented that WWMA didn't have the field test results and believes that is why WWMA recommended a Withdrawn status. Chairman Sakin asked if more testing could be completed, and more data collected. Mr. Cassidy recommends the item remain as a Developing item for additional data to be collected. Mr. McGuire concurs as does the Committee which recommends continuing Developing status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

## **NET-22.2            V    Section 3. X. Volumetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter.**

### **Source:**

Mr. Ronald Hayes (retired)

### **Purpose:**

Allow the use of digital density meters for package checking testing of viscous and non-viscous liquids.

### **Item Under Consideration:**

Amend Handbook 133, Checking the Net Contents of Packaged Goods, as follows:

#### **3.1.1. Test Methods**

#### **Notes:**

(2) When checking liquid products using a volumetric or gravimetric procedure, the temperature of the samples must be maintained at the reference temperature  $\pm 2^{\circ}\text{C}$  ( $\pm 5^{\circ}\text{F}$ ), **except when 3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter is used.**

### **3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter**

**This test procedure can be used to determine the net contents of most package goods labeled in fluid volume. Manufacturer's instructions must be reviewed prior to use, to determine if the meter is suitable for testing the intended product.**

**This procedure is also useful for ensuring product quality for commodities (e.g., DEF, Antifreeze) that have a density requirement in their respective specifications.**

**This test procedure is suitable for measuring the density of homogenous liquids including dairy products such as milk and half & half; petroleum products such as fuel, motor oil, transmission fluid, paint thinner, brake fluid, diesel exhaust fluid, automotive coolant; pulp-free juices, wine, distilled spirits, water, mouth wash, alcohol, syrups, cooking oils, solvents, cleaning supplies, chemicals, as well as other viscous and non-viscous liquids. All products tested shall be free of suspended gas, air, sediment, suspended matter.**

**This test procedure may be used as a substitute for testing non-viscous liquids gravimetrically using a flask (refer to 3.2. Gravimetric Test Procedure for Non-Viscous Liquids), the volumetric flask test procedure (refer to 3.3. Volumetric Test Procedure for Non-Viscous Liquids) or testing viscous fluids by the volumetric headspace procedure (refer to 3.4. Volumetric Test Procedures for Viscous Fluids – Headspace).**

NOTE: This shall not be used for liquids with suspended solids such as orange juice with pulp, buttermilk, liquids requiring “shake before use”, paint, or carbonated products (soda, beer, etc.) or substances not approved by the digital density meter manufacturer.

Prior to using for compliance testing, the official’s metrological laboratory should perform a comparison between the densities obtained between Sections 3.2. Gravimetric Test Procedure for Non-Viscous Liquids or 3.3. Volumetric Test Procedure for Non-Viscous Liquids, and the digital density meter.

This test procedure can also be a time saver for screening products for proper fill and for quality control purposes.

### 3.X.1. Test Equipment

- A scale that meets the requirements in Chapter 2, Section 2.2. “Measurement Standards and Test Equipment.”

Note: To verify that the scale has adequate resolution for use, it is first necessary to determine the density of the liquid. Using the density, convert the labeled volume to weight. Based on the labeled volume, determine the MAV using Table 2-6 “Maximum Allowable Variations for Packages Labeled by Liquid and Dry Volume” found in Appendix A. Using the density, convert the MAV from volume to weight. Next verify that the scale division is no larger than MAV/6 for the package size under test. The smallest graduation on the scale must not exceed the weight value for MAV/6.

#### Example:

Assume the inspector is using a scale with 1 g (0.002 lb) increments to test packages labeled 1 L (33.8 Fl oz) that have an MAV of 29 mL (1 Fl oz). Also, assume the inspector finds that the weight of 1 L of the liquid is 943 g (2.078 lb).

Density: 1 L = 943 g (2.078 lb)

MAV: 29 mL (1 Fl oz)

Convert Density into mL and Fl oz:

$$943 \text{ g} \div 1000 \text{ mL} = 0.943 \text{ g/mL} \quad (2.078 \text{ lb} \div 33.8 \text{ Fl oz} = 0.0614 \text{ lb/Fl oz})$$

Convert MAV from Volume (mL/Fl oz) to Weight:

$$29 \text{ mL} \times 0.943 \text{ g/mL} = 27.347 \text{ g} \quad (1 \text{ Fl oz} \times 0.0614 \text{ lb/Fl oz} = 0.0614 \text{ lb})$$

MAV in Weight/6

$$27.347 \text{ g} \div 6 = 4.557 \text{ g} \quad 0.0614 \text{ lb} \div 6 = 0.0102 \text{ lb}$$

In this example, the 1 g (0.002 lb) scale division is smaller than the MAV/6 value of 4.557 g (0.0102 lb) so the scale is suitable for making a density determination.

- Low pressure air pump– (e.g., an aquarium air pump)
- Syringe (glass or plastic with Luer fitting 5mL or larger)

Note: Plastic syringe should be free of any lubricating substances

- Distilled or deionized water

- 1 • Cleaning agents (See Table 3.X4. Cleaning Agents)
- 2 • Waste container
- 3 • Barometer for obtaining the prevailing barometric pressure, with an accuracy of  $\pm 3.0$  mmHg
- 4 • Thermometer for measuring air temperature with a tolerance of  $\pm 1^{\circ}\text{C}$  ( $2^{\circ}\text{F}$ )
- 5 • Portable digital density meter meeting a minimum requirement of:

<u>Measuring Range</u>	
<u>Density</u>	<u>0 – 3 g/cm<sup>3</sup></u>
<u>Temperature</u>	<u>0 – 40 °C (32 – 104 °F)<sup>a</sup></u>
<u>Viscosity</u>	<u>0 – 1000 mPa·s</u>
<u>Accuracy<sup>b</sup></u>	
<u>Density</u>	<u>0.001 g/cm<sup>3</sup></u>
<u>Temperature</u>	<u>0.2 °C (0.4 °F)</u>
<u>Repeatability s.d.</u>	
<u>Density</u>	<u>0.0005 g/cm<sup>3</sup></u>
<u>Temperature</u>	<u>0.1 °C (0.1 °F)</u>
<u>Sample Volume</u>	<u>2 mL</u>
<u>Sample Temperature</u>	<u>max. 100 °C (212 °F)</u>
<u>Footnotes</u>	
<sup>a</sup> <u>Filling at higher temperatures possible.</u>	
<sup>b</sup> <u>Viscosity &lt; 100 mPa·s, density &lt; g/cm<sup>3</sup></u>	

### 6 3.X.2. Test Procedure

1. Follow Section 2.3.1. “Define the Inspection Lot.” Use a “Category A” sampling plan in the inspection. Select a random sample.
2. Bring the sample packages and their contents to a temperature between the reference temperature and ambient temperature.
3. Packages may be gently rolled to mix contents. Avoid shaking liquids. Shaking some products such as flavored milk will entrap air that will affect density measurements.
4. The digital density meter must at ambient temperature. Avoid causing condensation within the unit. Condensation could cause instrument malfunction and harm.
5. Using distilled or deionized water, validate the digital density meter per the manufacturer’s calibration instructions. The digital density meter shall calibrate within allowable density range ( $\pm 0.0005\text{g/cm}^3$ ). The digital density meter shall be validated once each day prior to usage.

6. Ensure the digital density meter is clean prior to testing. Any residual liquid should be drained, and the unit should be flushed with a small amount of the sample to be tested. Flush and discard the sample two times before taking a measurement.
7. Follow the manufacturer's instructions to select the correct method, when using a meter with built in correction factors, and measure the density of the sample using the built-in pump or syringe. Fill the sample slowly and gently. If gas or air bubbles are present drain sample and refill.

Note: Use of a syringe may be desirable to allow sample specimen to achieve ambient temperature prior to introduction of specimen into testing cell and for viscous specimens.

8. Once the digital density meter has stabilized (maintained reading  $\pm 0.2$  °C ( $\pm 0.5$  °F) for 10 seconds) record density and temperature as indicated on instrument.
9. Apply density coefficient of expansion (Alpha) also known as the density correction factor (DCF), to correct to the reference temperature. See Table X.1. Reference Temperatures of Liquids. If the Alpha correction is not known, then factor can be calculated using the below formula.

Note: Some digital density meters may be programmed to automatically apply this correction.

#### Calculating the Temperature Coefficient Alpha

$$\text{Temperature coefficient Alpha} = \left| \frac{\rho_1 - \rho_2}{T_1 - T_2} \right|$$

$\rho_1$  .... density at temperature  $T_1$

$\rho_2$  .... density at temperature  $T_2$

$T_1$  .... temperature at initial measurement

$T_2$  .... temperature at second measurement

Note: If the density correction factor is not known but the volume correction factor (VCF) is known, the DCF can be calculated from the VCF using the following formula.

Density Temperature Factor Alpha = Absolute Value of Beta  $\times$  Density.

10. Apply viscosity correction if viscosity > 85 centipoise at 21 °C (70 °F) by adding the value in Table X. Density Measurement to your density measurement. After this correction, this value is the density of the substance in in the vacuum at the prescribed reference temperature.

Note: Some digital density meters may be pre-programmed to automatically apply. See Table X. Viscosity Corrections of Common Materials

11. Apply the apparent density correction by applying one of the following steps:

- (1) multiplying the density by 0.999; or
- (2) multiplying the density by the Apparent Mass Factor from Table X.3.; or
- (3) calculate apparent density by using the following.

#### Converting True Density into Apparent Density

The apparent density  $P_{aap}$  is defined as:

$$Paap = \frac{P_{true, sample} - P_{air}}{1 - \frac{P_{air}}{8.0 \text{ g/cm}^3}}$$

Where:

$Paap$  = apparent density of the sample

$P_{steel}$  = 8.0 g/cm<sup>3</sup>

$P_{air}$  = true density of air

$P_{true, sample}$  = true density of the sample

The apparent density is smaller than the true density and can be calculated from the true density considering the buoyancy of the sample in air and the weight and density of a reference weight in steel.

\*  $P_{air}$  = true density of air as calculated from equation in Table X.0.

After application of this factor or calculation, the new value is density of the substance in air.

12. Drain the instrument and repeat Steps 6–10 on a second specimen of the same package for verification of first measurement.
13. Compare the two readings, they must agree within 0.0003 g/cc. Calculate the average density of the two specimens from the sample. If the difference of two readings is greater than 0.0003 g/cc, discard results and repeat testing of sample. Air or undissolved gas will cause erroneous measurement errors. The user of the test procedure shall always visually inspect for undissolved gas in the measurement tube for a valid test.
14. Repeat testing for the second (or subsequent) package(s) of the lot.
15. Calculate the Average Product Density of sample 1 and sample 2. The two results must agree within 0.0005 g/cc. If the difference between the densities of the two packages exceeds 0.0005 g/cc, use the volumetric procedure in Section 3.3. “Volumetric Test Procedure for Non-Viscous Liquids.”
16. Determine the Average Used Dry Tare Weight of the sample according to provisions of Section 2.3.5. “Procedures for Determining Tare.”
17. Calculate the “nominal gross weight” using the following formula:

$$\text{Nominal Gross Weight} = (\text{Average Product Density [in weight units]}) \times (\text{Labeled Volume}) + (\text{Average Used Dry Tare Weight})$$

18. Weigh the remaining packages in the sample.
19. Subtract the nominal gross weight from the gross weight of each package to obtain package errors in terms of weight. All sample packages are compared to the nominal gross weight.
20. To convert the average error or package error from weight to volume, use the following formula:

$$\text{Package Error in Volume} = \text{Package Error in Weight} \div \text{Average Product Density Per}$$

Volume Unit of Measure

21. The digital density meter must be stored clean. After final use of the day or extended period of time, the instrument shall be drained and cleaned following the manufacturer's recommended cleaning procedures and using two cleaning agents. The first cleaning agent removes sample residue, and the second cleaning agent removes the first cleaning agent. See Table X.4. Cleaning Agents for examples of cleaning agents recommended by a digital density meter manufacturer.

NOTE: If the unit will be immediately used to measure another sample of similar composition, the unit may be drained and flushed with new sample three times before the next analysis.

22. Connect digital density meter to a low-pressure air source, such as an aquarium air pump, to dry the unit's measurement cell.

### 3.X.3. Evaluation of Results

Follow the procedures in Chapter 2, Section 2.3.7. "Evaluate for Compliance" to determine lot conformance.

<u>Table X.0. Density Measurement</u>		
<u>Calculate the density of air at the temperature of test</u> <u>using the following equation:</u> $\rho_{\text{air, g/mL}} = 0.001293[273.15/T][P/760]$ <u>where:</u> <u>T = temperature, K, and</u> <u>P = barometric pressure, torr.</u>		
<u>°C</u>	<u>mmH</u> <u>g</u>	<u>d<sub>air</sub>, g/mL</u>
<u>15.56</u>	<u>760</u>	<u>0.001223314</u>

<u>Table X.1. Viscosity Corrections of Common Materials</u>		
<u>Material</u>	<u>Viscosity in Centipoise</u>	<u>Correction g/cc</u>
<u>Water</u>	<u>1 cP</u>	
<u>Milk</u>	<u>3 cP</u>	
<u>SAE 10 Motor Oil</u>	<u>85–140 cP</u>	<u>0.0003</u>

<u>SAE 20 Motor Oil</u>	<u>140–420 cP</u>	<u>0.0006</u>
<u>SAE 30 Motor Oil</u>	<u>420–650 cP</u>	<u>0.0007</u>
<u>SAE 40 Motor Oil</u>	<u>650–900 cP</u>	<u>0.0007</u>
<u>Castrol Oil</u>	<u>1,000 cP</u>	<u>0.0008</u>
<u>Karo Syrup</u>	<u>5,000 cP</u>	<u>0.0008</u>
<u>Honey</u>	<u>10,000 cP</u>	<u>0.00085</u>

<u>Table X.2. Apparent Mass Factor</u>					
<u>Elevation, ft</u>	<u>sea level</u>	<u>1500</u>	<u>3000</u>	<u>4500</u>	<u>6000</u>
<u>Barometer, mmHg</u>	<u>760</u>	<u>720</u>	<u>680</u>	<u>640</u>	<u>600</u>
<u>density, g/cc</u>	<u>Apparent Mass Factor</u>				
<u>0.500</u>	<u>0.9977</u>	<u>0.9979</u>	<u>0.9980</u>	<u>0.9981</u>	<u>0.9982</u>
<u>0.600</u>	<u>0.9981</u>	<u>0.9982</u>	<u>0.9983</u>	<u>0.9984</u>	<u>0.9985</u>
<u>0.700</u>	<u>0.9984</u>	<u>0.9985</u>	<u>0.9986</u>	<u>0.9987</u>	<u>0.9988</u>
<u>0.800</u>	<u>0.9986</u>	<u>0.9987</u>	<u>0.9988</u>	<u>0.9989</u>	<u>0.9989</u>
<u>0.900</u>	<u>0.9988</u>	<u>0.9989</u>	<u>0.9989</u>	<u>0.9990</u>	<u>0.9991</u>
<u>1.000</u>	<u>0.9989</u>	<u>0.9990</u>	<u>0.9991</u>	<u>0.9991</u>	<u>0.9992</u>
<u>1.100</u>	<u>0.9991</u>	<u>0.9991</u>	<u>0.9992</u>	<u>0.9992</u>	<u>0.9993</u>
<u>1.200</u>	<u>0.9991</u>	<u>0.9992</u>	<u>0.9992</u>	<u>0.9993</u>	<u>0.9993</u>
<u>1.300</u>	<u>0.9992</u>	<u>0.9993</u>	<u>0.9993</u>	<u>0.9993</u>	<u>0.9994</u>
<u>1.400</u>	<u>0.9993</u>	<u>0.9993</u>	<u>0.9994</u>	<u>0.9994</u>	<u>0.9994</u>
<u>1.500</u>	<u>0.9993</u>	<u>0.9994</u>	<u>0.9994</u>	<u>0.9994</u>	<u>0.9995</u>
<u>Elevation or prevailing barometric pressure at the location of measurement.</u>					

<u>Table X.3. Cleaning Agents</u>		
<u>Commodity</u>	<u>Cleaning Liquid 1</u>	<u>Cleaning Liquid 2</u>
<u>Petroleum products</u>	<u>Toluene, petroleum naphtha, petroleum ether, n-nonane, cyclohexane</u>	<u>Ethanol</u>
<u>Battery acid</u>	<u>Tap water</u>	<u>Ultra-pure (bi-distilled or deionized) water</u>
<u>Liquid soap and detergent, shampoo</u>	<u>Tap water</u>	<u>Ultra-pure (bi-distilled or deionized) water</u>
<u>Salad dressing, mayonnaise</u>	<u>Petroleum naphtha, dish washing agent in water</u>	<u>Ethanol</u>
<u>Suntan lotion</u>	<u>Tap water</u>	<u>Ethanol</u>



<u>Spirits</u>	<u>Tap water</u>	<u>Ultra-pure (bi-distilled or deionized)</u> <u>water</u>
<u>Grape juice, syrup</u>	<u>Warm tap water</u>	<u>Ultra-pure (bi-distilled or deionized)</u> <u>water</u>
<u>Milk*</u>	<u>Tap water, enzymatic lab cleaner</u>	<u>Ultra-pure (bi-distilled or deionized)</u> <u>water</u>

**\*NOTE: Do not introduce ethanol or other alcohols into instrument without first flushing all milk products from instruments.**

The submitter requested that this be a Voting Item in 2022.

#### **Arguments in Favor:**

##### **Regulatory:**

- Regulators supported moving this item forward as a voting item and expressed previous concerns had been addressed in the latest proposal.
- Original submitter, Ron Hayes (retired) revised the original proposal and believes the item is now ready to move forward as a voting item.

##### **Industry:**

- None

##### **Advisory:**

- Dave Sefcik NIST, OWM testified that the new proposal addresses their previous concerns. The data provided by the submitter comparing the portable density meter to the current HB133 volumetric test is limited but does show repeatable results.

#### **Arguments Against:**

##### **Regulatory:**

- None

##### **Industry:**

- None

##### **Advisory:**

- None

#### **Neutral Comments:**

##### **Regulatory:**

- None

##### **Industry:**

- None

##### **Advisory:**

- None

**Item Development:**

The Committee assigned Voting status for this item at the 2022 Interim Meeting.

The Committee believes the latest proposal is fully developed, addressed previous concerns and is therefore ready for a vote.

Additionally, the Committee believes this item will provide a tool to Weights and Measures Officials that will improve efficiency during inspections while maintaining current testing accuracy levels.

Note: The Committee removed Table X.1\_Density Coefficient Factor (Alpha) because it has not been validated. The Committee spoke to the original submitter, and they agreed that the proposal can still go forward as a Voting item without the table; it is not necessary for it to be included for field use.

The Committee received additional information on this item from NIST OWM after the meeting stating the item is being reviewed by NIST OWM. NIST OWM submitted proposed changes and comments to the Committee for their consideration. These proposed changes and comments will be provided online to membership before the annual meeting.

**Regional Associations' Comments:**

WWMA 2021 Annual Meeting: Mr. Ronald Hayes, (Retired, Missouri) – Provided testimony for support of this Item, it is resubmitted from a past Item with updated language. Mr. Hayes indicated there are three volunteers who are testing this procedure for validation. Believes the process and technology are sound and is twice as accurate as the current method for some products. If approved this method would significantly decrease inspection times. Mr. Ivan Hankins, (State of Iowa) – Asked for clarification on how this will replace the way tests are currently conducted. Mr. Hayes responded saying this method will reduce tests times which would be better for field personnel. Mr. Hayes expanded that he has tested this in dairies, with the new method taking minutes and the old method taking hours. Mr. Kevin Schnepf, (CDFA-DMS) – Mr. Schnepf supported the continuing development of this Item but asked to see the aggregated data that supported the proposal. He also asked how often the unit needed to be calibrated, for the different products outlined in the proposal. Mr. Hayes responded that the data is being compiled into a report and provided information on the procedures on how to validate the calibration. Mr. Hayes clarified on how to calibrate the equipment. Ms. Lisa Warfield, (NIST OWM) – Supports the development of this test procedure and applauds Mr. Ronald Hayes for working on this. OWM submitted an analysis and agrees these devices may be used in audit testing. Ms. Warfield made statements that highlighted items provided in the OWM analysis supporting documentation. Mr. Ronald Hayes responded to items in the OWM analysis, particularly barometric pressure by stating that this can be corrected for by using a correction factor listed in the agenda item. Ms. Lisa Warfield stated that the word approximate must be removed from all tables. Mr. Hayes replied that he believed that this had been accomplished but it is still documented in table X2. Mr. Hayes also replied that he is looking for collaboration and continued support from NIST in this matter.

The Committee recommends that this Item be Assigned. The Committee recommends that L&R National Chair create a Task Group headed by Mr. Hayes that can work on gathering and assessing data to advance this proposal for use as an audit tool and eventually an enforcement tool.

SWMA 2021 Annual Meeting: No comments were heard during open hearings. NIST OWM provided a written analysis documenting their support of the development of this item.

The Committee recommends this as a Developing item. Studies should continue until such time that sufficient evidence can be provided showing that these devices provide density values equivalent to those measured found using existing test methods

CWMA 2021 Interim Meeting: Ron Hayes, retired regulator from Missouri who is the original submitter commented that he rewrote the method from its original version, and table X.1 is currently under review. He also mentioned the ASTM test methods that have been in the marketplace for several years, and he believes with the changes in table X.1 and a few additional changes, he believes the item will be ready for voting status. He is asking for volunteers to collect data using this instrument. Lisa Warfield, NIST Technical Advisor commented that the NIST analysis captures areas

for improvement and supports the development of this item as an audit procedure. Mike Harrington, Iowa commented that he supports this as a voting item rather than be assigned to a task group to collect data. The Committee believes the item is fully developed by the original submitter and supports further testing by states and recommends voting status.

NEWMA 2021 Interim Meeting: Mr. Ron Hayes (retired, Missouri) commented that this is a complete rewrite of a previously submitted proposal that the NCWML&R Committee withdrew. This method, which has been used for several years in the liquid fuels and lubricants industry. He indicated the item is ready for Voting status. He will continue to communicate with OWM to work through the comments they included in their analysis of the item and will have all the edits and additions completed by the 2022 NCWM Interim Meeting. Mr. David Sefcik (NIST Technical Advisor) commented that NIST supports continued development of this item and to work with Mr. Hayes to resolve any remaining questions. Mr. Sefcik further commented that these devices are being widely used in other countries in the verification of the net quantity of contents by legal metrology programs, but the U.S. has been slow to adopt them. He believes it would be valuable for states to do additional testing to provide sufficient evidence that these devices can provide density values equivalent to those found using existing NIST HB 130 test methods. This will also help move this from an audit test procedure to an actual test procedure. The Committee recommends the item be given Assigned status to an NCWM Task Group to elevate this to a Voting Item. Mr. Lisa Warfield, NIST Technical Advisor commented that Mr. McGuire should request from the NCWM Chairman to form a TG to develop this item. The Committee concurs that development of this item should be done through a Task Group.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

## **FLR - UNIFORM FUELS AND AUTOMOTIVE LUBRICANTS REGULATION**

### **FLR-20.5            W    Section 2.1.2.(a). Gasoline-Ethanol Blends.**

#### **Source:**

American Petroleum Institute (API)

#### **Purpose:**

More comprehensively align Handbook 130 Uniform Fuels and Automotive Lubricants Regulations with the U.S. EPA's rule that grants a 1 psi vapor pressure waiver to E15 for summertime (June 1 to September 15) and to help ensure consumers receive a consistent E15 blend. The proposed changes to HB 130 reflect the important information that an inspector will need to ensure that E15 is properly blended and that the potential harm to the consumer and the environment will be minimized.

#### **Item Under Consideration:**

Amend Handbook 130, Uniform Fuels and Automotive Lubricants Regulation as follows:

### **2.1. Gasoline and Gasoline-Oxygenate Blends**

**2.1.1. Gasoline and Gasoline-Oxygenate Blends** (as defined in this regulation). – Shall meet the latest version of ASTM D4814, "Standard Specification for Automotive Spark-Ignition Engine Fuel" except for the permissible offsets for ethanol blends as provided in Section 2.1.2. Gasoline-Ethanol Blends.

(a) The maximum concentration of oxygenates contained in gasoline-oxygenate blends shall not exceed those permitted by the EPA under Section 211 of the Clean Air Act and applicable waivers.

(Added 2009) (Amended 2018)

**2.1.2. Gasoline-Ethanol Blends.** – When gasoline is blended with denatured fuel ethanol, the denatured fuel ethanol shall meet the latest version of ASTM D4806, "Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel," and the blend shall meet the latest

version of ASTM D4814, “Standard Specification for Automotive Spark-Ignition Engine Fuel,” with the following permissible exceptions:

- (a) The maximum vapor pressure shall not exceed the latest edition of ASTM D4814, “Standard Specification for Automotive Spark-Ignition Engine Fuel,” limits by more than 1.0 psi for blends containing at least 9 and not more than 15 volume percent ethanol from June 1 through September 15 as allowed by EPA per 40 CFR 80.27(d).

(Amended 2016, ~~and~~ 2018, 2019 and 20XX)

**Section 2.1. NOTE:** *The values shown above appear only in U.S. customary units to ensure that the values are identical to those in ASTM standards and the Environmental Protection Agency regulation.*

(Added 2009) (Amended 2012 and 2016)

**Arguments in Favor:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- A couple of regulators stated that the current language in NIST Handbook 130 is correct.

**Industry:**

- Iowa Renewable Fuels Association recommends withdrawal
- Petroleum Marketers Association recommends informational
- API recommends withdrawal based on the Supreme Court of the United States ruling.
- Growth Energy recommends withdrawal.

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- FALS had no position.

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee assigned Withdrawn status for this item at the 2022 Interim Meeting.

The Committee previously deescalated this item from Voting status to Informational and took responsibility for this Item. During the 2022 NCWM Interim meeting no one spoke in favor the item and several Industry Associations spoke against the item supporting its withdrawal.

**Background/Discussion:**

Aligning Handbook 130 with the important parts of the U.S. EPA rule that grants a 1-psi vapor pressure waiver during the summer months for E15 is important to ensure that E15 has the correct vapor pressure during these months and provides comprehensive information to aid in ensuring compliant E15 gasoline is provided to consumers. FLR Sections 2.1.2. and 1.23. are modified to address these issues.

**Amendments to FLR paragraph 2.1.2.(a)**, specify that the range of ethanol in the gasoline-ethanol blends qualifying for the 1-psi waiver shall only be from 9 to 15 volume percent as per 40 CFR 80.27(d). The change is unambiguous and does not require the inspector to access the federal rule to understand the applicable range of the waiver.

**EPA Final rule**, “Modifications to Fuel Regulations To Provide Flexibility for E15; Modifications to RFS RIN Market Regulations” June 10, 2019, [www.govinfo.gov/content/pkg/FR-2019-06-10/pdf/2019-11653.pdf](https://www.govinfo.gov/content/pkg/FR-2019-06-10/pdf/2019-11653.pdf)

U.S. EPA “Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations: Response to Comments.” June 10, 2019. Added in total with an example provided below.

[www.regulations.gov/document?D=EPA-HQ-OAR-2018-0775-1174](https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0775-1174)

p. 53 (Response to comments) E15 is allowed to be blended at blender pumps as long **as only certified components** are used (sic) Cases where blender pumps introduce uncertified components into gasoline continue to be illegal and may result in fuel that exceeds gasoline quality standards. Parties that blend uncertified components into previously certified gasoline are considered fuel manufacturers under the regulations at 40 CFR part 79 and refiners under 40 CFR part 80. [emphasis added]

The following quotes from the U.S. EPA proposal provide additional information:

- EPA provided the following comments in its final rule on the recent E15 1-psi waiver related to Section G, 2.1.2. and 1.23.:
  - “[U.S. EPA] note that for E15 produced at blender pumps using E85 made with natural gas liquids, **use of the deemed to comply provision to demonstrate compliance would not be available**. This is because the RVP of natural gas liquids can be as high as 15.0 psi and even a small amount of natural gas liquids could cause the gasoline portion of the blend to not comply with the applicable RVP limitations established under CAA sec. 211(h), which is required under CAA sec. 211(h)(4)(A) to be deemed in compliance. Parties that make E15 at a blender pump using **E85 made with previously certified gasoline can take advantage of the ‘deemed to comply’ provision** and associated affirmative defense at 40 CFR 80.28 if all applicable requirements in 80.28 are met.” (84 FR 27008) (emphasis added)
- “As discussed in the [U.S. EPA] proposal, E15 made at blender pumps is often made with certified E10 (or CBOB) and E85 (made with denatured fuel ethanol and uncertified hydrocarbon blendstocks, i.e., natural gas liquids). While data is limited, we believe that approximately 50 percent of stations offering E15 make E15 in this manner. (84 FR 27010)
- **40 CFR 80.27(d) Special provisions for alcohol blends.**
  - (1) Any gasoline which meets the requirements of paragraph (d)(2) of this section shall not be in violation of this section if its Reid vapor pressure does not exceed the applicable standard in paragraph (a) of this section by more than one pound per square inch (1.0 psi).

(2) In order to qualify for the special regulatory treatment specified in paragraph (d)(1) of this section, gasoline must contain denatured, anhydrous ethanol. **The concentration of the ethanol, excluding the required denaturing agent, must be at least 9% and no more than 15% (by volume) of the gasoline.** The ethanol content of the gasoline shall be determined using one of the testing methodologies specified in § 80.47. The maximum ethanol content shall not exceed any applicable waiver conditions under section 211(f) of the Clean Air Act.

(3) **Each invoice, loading ticket, bill of lading, delivery ticket and other document which accompanies a shipment of gasoline containing ethanol shall contain a legible and conspicuous statement that the gasoline being shipped contains ethanol and the percentage concentration of ethanol.**

(emphasis added)

• **40 CFR 80.28(g) Defenses.**

(8) In addition to the defenses provided in paragraphs (g)(1) through (6) of this section, in any case in which an ethanol blender, distributor, reseller, carrier, retailer, or wholesale purchaser-consumer would be in violation under paragraph (b), (c), (d), (e), or (f) of this section, as a result of gasoline which contains between 9 and 15 percent ethanol (by volume) but exceeds the applicable standard by more than one pound per square inch (1.0 psi), the ethanol blender, distributor, reseller, carrier, retailer or wholesale purchaser-consumer **shall not be deemed in violation if such person can demonstrate, by showing receipt of a certification from the facility from which the gasoline was received or other evidence acceptable to the Administrator,** that:

(i) **The gasoline portion of the blend complies with the Reid vapor pressure limitations of § 80.27(a); and**

(ii) **The ethanol portion of the blend does not exceed 15 percent (by volume); and**

(iii) **No additional alcohol or other additive has been added to increase the Reid vapor pressure of the ethanol portion of the blend.**

In the case of a violation alleged against an ethanol blender, distributor, reseller, or carrier, if the demonstration required by paragraphs (g)(8)(i), (ii), and (iii) of this section is made by a certification, it must be supported by evidence that the criteria in paragraphs (g)(8)(i), (ii), and (iii) of this section have been met, such as an oversight program conducted by or on behalf of the ethanol blender, distributor, reseller or carrier alleged to be in violation, which includes periodic sampling and testing of the gasoline or monitoring the volatility and ethanol content of the gasoline. Such certification shall be deemed sufficient evidence of compliance provided it is not contradicted by specific evidence, such as testing results, and provided that the party has no other reasonable basis to believe that the facts stated in the certification are inaccurate. **In the case of a violation alleged against a retail outlet or wholesale purchaser-consumer facility, such certification shall be deemed an adequate defense for the retailer or wholesale purchaser-consumer, provided that the retailer or wholesale purchaser-consumer is able to show certificates for all of the gasoline contained in the storage tank found in violation,** and, provided that the retailer or wholesale purchaser-consumer has no reasonable basis to believe that the facts stated in the certifications are inaccurate.

(emphasis added)

On January 17, 2020 Mr. Prentiss Searles (API) submitted modified language for Section 2.1.2.(a). Gasoline-Ethanol Blends. There were over ten letters received in opposition for MOS-20.2. Documentation for Dispenser Labeling Purposes and FLR 20.3. Section 1.23. Ethanol Flex Fuel language. Many were opposed due to its duplication with the EPA compliance program for this subject.

NCWM 2020 Interim Meeting: Mr. Searles did provide a presentation and requested from the floor that Section 2.1.2.(a) Gasoline-Ethanol Blends be considered as a Voting Item and he volunteered to chair a workgroup to further develop the remaining items. Many rose in support and opposition of this block of items. It was addressed by Ms.

Warfield (NIST) that FALS was tasked by the Committee in July 2019 to review the EPA language and its impact on the regulations within the Fuels Regulations within Handbook 130. FALS Chair Mr. Bill Striejewski remarked that he has created a focus group but needs additional clarification from the Committee on what specifically they should address.

During Committee work session they concurred that Section 2.1.2.(a). Gasoline-Ethanol Blends will proceed as a Voting item. All the remaining items will be merged into Block 4 and be assigned to FALS for further development.

NCWM 2020 Annual Meeting: Several comments were heard both in opposition and supporting the item from both industry and regulators. Those opposed included Mr. Mike Harrington (IA), Mr. Charlie Stutesman (KS), Mr. Jim Willis (NY), Mr. Doug Rathbun (IL), Mr. Chuck Corr (Corr Consulting), Ms. Kristy Moore (Growth Energy), and Mr. Kevin Adlaf (ADM). Those opposed voiced concern over the newly implemented EPA streamlining rules. Questions were raised if the changes would affect this item or if the item is now necessary? Other concerns were heard that the language would be moving backwards, that having the percentages listed could cause issues in the future if the EPA changes them again. The current language is effective, and this type of work is done in a lab not the field where the requirements could easily be looked up. Those supporting the item included Mr. Searles, Mr. Joe Sorena (Chevron), Mr. Russ Lewis (Marathon Petroleum). The supporting comments included that this just adds back what was not included during the emergency amendment for the 2020 Handbook. Mr. Harrington (OR) supporting as a voting item or leave it on the agenda for another cycle. It was decided that further review was needed, and the item was downgraded to Informational status.

NCWM 2021 Interim Meeting: The Committee was informed that after a multiyear process the EPA Streamlining Rule was signed in late 2020. The rule has drawn considerable interest and discussion with various stakeholders. Many would like to wait for the streamlining rules and a review of the NIST Handbook regulations. Some believe that language is specified in the CFR and the streamlining rule does not affect this. Some felt this item should be withdrawn in its entirety. A few comments were heard that were like those from annual meeting hearings in both support and opposition to the item. A neutral comment was heard from Mr. Elliott (WA) challenging for theoretical examples showing the harm of having or not having the proposed language added back in. The Committee deemed this item to be fully developed and felt this should be voted on its own merit.

NCWM 2021 Annual Meeting: FALS Chair Mr. Bill Striejewski provided an overview report to the Committee stating this item was discussed at some length during yesterday's FALS meeting. FLR-20.5 added language to Section 2.1.2(a) relevant to the summertime 1 psi vapor pressure waiver for E15. However, on July 2, 2021, the Washington, District of Columbia Court of Appeals offered an opinion which struck down the waiver, saying in brief that the US EPA had overstepped their authority in granting the waiver in 2019. There were varying views within FALS members as to how this Item should proceed at the Conference. Mr. Corr (C. Corr Consulting) spoke on behalf of a Developing status, as work is required to addressing RBOB limitations. The FALS did recommend to the Committee to de-escalating this item from its current voting status but did not have a consensus recommendation for a new status.

Mr. Prentiss Searles (API) requested that this item be deescalated until the court matter is sorted out. Mr. Searles informed membership that on July 2, 2021, the U.S. Court of Appeals for the D.C. Circuit issued an opinion that ruled on EPA's rule in 2019 that extended the E10 Reid Vapor Pressure (RVP) waiver to 15 percent volume ethanol blends (E15) during the summer driving season (June 1 - September 15). The court determined that the Clean Air Act does not authorize the RVP waiver to be extended to E15 and vacated the portion of the rule asserting that E15 is substantially similar to E10. In short, the court overturned EPA's rule on the E15 waiver. Consequently, by the time the court procedures take place they will not have a mandate to vacate until after the summer driving season is over. Mr. Searles recommend this get assigned back to FALS to keep them engaged. Ms. Moore (Growth Energy) and Mr. Mike Harrington (Iowa and on behalf of the CWMA) recommended this item be withdrawn. An industry member and NEWMA recommended this be deescalated to an Assigned Status.

The Committee deescalated this item from Voting status to Informational and will be responsible for this Item. The Committee will review any court actions on this item and determine a status at the 2022 NCWM Interim Meeting.

#### **Regional Associations' Comments:**

WWMA 2021 Annual Meeting: The Committee heard comments in support of keeping this Item Informational pending the outcome of litigation. The Committee also heard comments to update the CFR references to 40CFR 1090.215(b).

The Committee recommends this item remain Informational pending the outcome of litigation, with the following language change:

**2.1.2. Gasoline-Ethanol Blends.** – When gasoline is blended with denatured fuel ethanol, the denatured fuel ethanol shall meet the latest version of ASTM D4806, “Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel,” and the blend shall meet the latest version of ASTM D4814, “Standard Specification for Automotive Spark-Ignition Engine Fuel,” with the following permissible exceptions:

- (a) The maximum vapor pressure shall not exceed the latest edition of ASTM D4814, “Standard Specification for Automotive Spark-Ignition Engine Fuel,” limits by more than 1.0 psi for blends **containing at least 9 and not more than 15 volume percent ethanol** from June 1 through September 15 as allowed by EPA per ~~40 CFR 80.27(d)~~, **40CFR1090.215(b)**.  
(Amended 2016, ~~and~~ 2018, 2019 **and 20XX**)

*Section 2.1. NOTE: The values shown above appear only in U.S. customary units to ensure that the values are identical to those in ASTM standards and the Environmental Protection Agency regulation.*  
(Added 2009) (Amended 2012 and 2016)

SWMA 2021 Annual Meeting: Prentiss Searles (API) provided a brief update. He recommends this item to remain Informational pending the outcome of litigation. NIST OWM provided written analysis recommending the item remain Informational.

The Committee recommends this item to remain Informational

CWMA 2021 Interim Meeting: Charlie Stutesman, Kansas commented that this item should be withdrawn. Kristy Moore, Growth Energy concurs that the language as it appears in the Handbook today is accurate. Mike Harrington, Iowa also recommends this item be withdrawn. Tamara Paik, Marathon, commented that API asks that this item be kept as an informational item and allows it to move forward depending on the outcome of the court determination. Ms. Moore further commented that the proposal is misleading. After considering the comments during open hearings, the Committee believes this item should be withdrawn.

NEWMA 2021 Interim Meeting: Mr. Chuck Corr (Iowa Renewable Fuels Association) stated he is opposed to the content statement related to ethanol in this section and stated a citation reference only is more appropriate. Mr. Mike Sikula (New York) commented that he is unsure of the purpose of this item. Mr. John McGuire (New Jersey) commented that this proposal appeared on the 2021 NCWM Annual L&R Agenda as an Informational item and the Committee is awaiting a determination from the U.S. Court of Appeals. The Committee recommends this item remain on the agenda as an Informational item until the legal process is finished.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

## OTH – OTHER ITEMS

### OTH-22.1      A      Uniform Regulation for E-commerce Products

**Source:**  
NCWM Packaging and Labeling Subcommittee (PALS)

**Purpose:**



Provide an update of the activities of PALS which works on direction from and reports to the L&R. This is to propose a new regulation for Handbook 130 covering sites and products which are sold through e-commerce.

**Item Under Consideration:**

Adopt a Handbook 130, Uniform Regulation for E-commerce Products, as follows:

**A. Uniform Labeling Regulation for E-commerce Products**

**1. Background**

The Uniform Labeling Regulation for E-commerce Products Regulation was adopted during the 1XXth Annual Meeting of the National Conference on Weights and Measures (NCWM) in 202X. Reporting to the Conference, the Packaging and Labeling Subcommittee stated:

The National Conference has adopted a model e-commerce labeling regulation for guidance to those states authorized to adopt such a regulation under provisions of their weights and measures laws. Since so much of the work of weights and measures officials in the field concerns consumer commodities and food, drug and cosmetic products, uniformity between the Federal (FDA and FTC) regulations, the Uniform Packaging and Labeling Regulation and any model regulations to be adopted by this Conference would provide significant benefit to both the U.S. consumer and manufacturer. The consumer benefit of having clear and consistent information on all product descriptions would allow for easier and more informed comparisons between similar and different products. The manufacturer benefit would be less complexity in ensuring labeling meets the Federal regulations.

The process of amending and revising this Regulation will be a continuing one in order to keep it current with practices in the e-commerce industry and make it compatible with appropriate federal regulations.

Nothing contained in this regulation should be construed to supersede any labeling requirement specified in federal law.

**2. Status of Promulgation**

(Table of Contents will be developed)

**Uniform Labeling Regulation for E-commerce Products**

**Preamble**

The purpose of this regulation is to provide accurate and adequate information for consumer products subject to FPLA requirements sold via e-commerce as to the identity and quantity of contents so that purchasers can make price and quantity comparisons.

**Section 1. Application**

This regulation shall apply to products and transactions which occur when purchasers are not present to purchase a consumer or non-consumer product in person.

This regulation specifically establishes requirements for websites, phone applications and other sites/programs which offer products for sale and permit consumers to make purchases without being physically present to inspect and select individual products and commodities in-person.

This regulation also applies to the product information which must accompany the products the purchaser receives after purchase from a website, phone application or site from which the purchase occurred.

This regulation shall not apply to:

- (a) inner wrappings not intended to be individually sold to the customer;

(b) shipping containers or wrapping used solely for the transportation of any commodities or products.

(c) shipping containers and inner wrappings for products or commodities purchased in quantity by manufacturers, packers, or processors in industrial proportions, or to wholesale or retail distributors who subsequently distribute or offer for sale products and commodities.

(d) auxiliary containers or outer wrappings used to deliver packages of such commodities to retail customers if such containers or wrappings bear no printed matter pertaining to any particular commodity.

## **Section 2. Definitions**

### **The following definitions apply to this regulation:**

**2.1. E-commerce – The process of offering for sale and transacting sales of one or more consumer commodities or non-consumer products when the customer is not physically present at the point of purchase. e-commerce includes the sale of consumer commodities or non-consumer products on-line through websites and phone applications, catalog sales and sales transacted through 3<sup>rd</sup> parties to select and/or deliver consumer commodities to consumer residences.**

**2.2. E-commerce Product – A consumer commodity or non-consumer product offered for sale through e-commerce.**

**2.3. E-commerce Site – The site, program or interface through which customers make product purchases. An E-commerce Site may allow users to choose between similar products/commodities or provide a purchase option. Product comparisons may be permitted on a single e-commerce site or may require the purchaser to make product comparisons between one or more e-commerce sites. An e-commerce site may be a manufacturer website, a retail website, a delivery service site, phone applications offered by manufacturers, retailers, delivery services, 3<sup>rd</sup> party providers or other interface in which the customer is physically not present to inspect and select products.**

**2.4. Customer – A person or entity purchasing an e-commerce product for their own use, the use of another person, or a business.**

**2.5. Package. – Except as modified by Section 1, the term “package,” whether standard package or random package, means any consumer commodity or non-consumer product which is:**

**(a) enclosed in a container or wrapped in any manner in advance of wholesale or retail sale; or**

**(b) whose weight, measure or count has been determined in advance of wholesale or retail sale. An individual item or lot of any commodity or non-consumer product on which there is marked a selling price, or for which there is represented to be a pre-determined selling price, based on an established price per unit of weight, count or measure shall be considered a package (or packages).**

**2.6. E-commerce Package – Any consumer commodity or non-consumer product with a defined net quantity been which is sold through e-commerce and is:**

**(a) enclosed in a container or wrapped in any manner in advance of on-line sale; or**

**(b) not enclosed prior to on-line sale and wrapped or packaged for shipment or delivery after sale, or**

**(c) not enclosed prior to on-line sale and does not require wrapping or packaging for delivery after sale.**

**2.7. E-commerce Standard Package -- A consumer commodity sold or offered for sale via e-commerce where lots or shipments of the same commodity have identical net content declarations.**

**2.8. E-commerce Random Quantity Package – A consumer commodity or non-consumer product sold or offered for sale via e-commerce wherein lots or shipments have varying net contents. The net quantity of contents for a random quantity package is fully defined once the consumer’s order is fulfilled by the seller or distributor.**

**2.9. Sale from Bulk. – The term “sale from bulk” means the sale of commodities when the quantity is determined at the time of sale.**

**2.10. E-commerce Bulk Product – A consumer commodity or non-consumer product sold or offered for sale via e-commerce and the product is not packaged at time of purchase. An e-commerce bulk product may or may not be wrapped upon its sale to facilitate shipment or delivery.**

**2.11. Consumer Commodity – An article, product or commodity offered for sale in packaged or bulk form in terms of weight, measure or count that is customarily produced or distributed for consumption or use by individuals for the purpose of consumption, personal care or personal use in services ordinarily in or around the household or for personal possessions.**

**2.12. E-commerce Consumer Commodity – A consumer commodity or product sold or offered for sale in bulk or packaged form via e-commerce which is an article, product or commodity intended for use by, produced for or customarily used by an individual or individuals for purposes of consumption or performance of services ordinarily rendered within a household.**

**2.13. E-commerce Non-Consumer Product – A product sold or offered for sale via e-commerce which is not a consumer commodity and is intended for use by a business or institution for industrial use or wholesale distribution. An E-commerce Non-Consumer product is typically sold by one business to another business.**

**2.14. E-commerce Non-Consumer Package – An e-commerce non-consumer product that is sold or offered for sale which has been packaged prior to sale on an e-commerce site.**

**2.15. E-Commerce Package Label. – Any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or contained within a package containing any consumer commodity, for purposes of branding, identifying, or giving any information with respect to the commodity or to the contents of the package.**

**2.16. E-commerce Receipt. -- A complete record of a transaction involving the purchase of one or more e-commerce products purchased at the same time from the same e-commerce site. e-commerce receipts may be either electronic or paper as described in this regulation.**

**2.17. SI or SI Units – SI or SI Units means the International System of Units as established in 1960 by the General Conference on Weights and Measures (CGPM) and interpreted or modified for the United States by the Secretary of Commerce**

**2.18. U.S. Customary Units – Units based upon the inch, foot, gallon, and the pound commonly used in the United States of America. US Customary units include units for weight, liquid measure, linear measure, area measure, volume measure and dry measure. The NIST Handbook 130 Uniform Packaging and Labeling Regulation details use of U.S. Customary units for consumer packages.**

**2.19 Person – The term “person” means either singular or plural and shall include any individual, partnership, company, corporation, association, or society engaged in e-commerce activity.**

### **Section 3. Required Declarations for E-commerce Sites Offering E-commerce Consumer Commodities and E-commerce Non-Consumer Products for Sale**

**Consumer commodities are being purchased through e-commerce sites whereby the customer makes purchase decisions based upon the product information provided on the website, phone application or other remote**

1 means. Because customers make e-commerce purchase decisions based on available information provided on  
2 these sites or venues, customers should expect the information provided to be sufficiently complete in order to  
3 make informed purchase decisions and accurate value comparisons. To that end, certain price and FPLA-  
4 required label information must be provided to purchasers on the E-commerce site where a product is offered  
5 for sale. The elements of the FPLA information required by this regulation are also present in regulations  
6 promulgated by other Federal agencies such as EPA, FTC and the Department of Agriculture.

7 Non-Consumer Products are also purchased through use of e-commerce sites. In order for a site user to make  
8 value comparisons and a purchase decision, certain product information must be present for a purchaser to  
9 make informed product selections and purchases.

10 3.1. E-commerce Site Requirements for Standard Packages. – The following shall apply to e-commerce sites  
11 on which standard packages are offered for sale:

12 (a) Declaration of Identity. – The product declaration of identity shall appear on the e-commerce site in a  
13 conspicuous and prominent location. Wherever applicable, the product brand name shall be combined  
14 with the declaration of identity. This information shall be provided separately from and in addition  
15 to any picture or image of the product.

16 (b) Declaration of Net Quantity. – The declaration of net quantity shall appear on the e-commerce site in  
17 a prominent location and in a conspicuous manner which clearly communicates the package net  
18 quantity. This information shall be provided separately from and in addition to any picture or image  
19 of the product. This information shall be provided in both U.S. customary and SI units unless the  
20 product is exempt from the Fair Packaging and Labeling Act requirements and meets existing labeling  
21 requirements for that product.

22 (c) Product Price. –The price of the product shall appear on the e-commerce site in a conspicuous and  
23 prominent location. Added cost information (if any) for shipping, delivery, taxes, and other services  
24 shall be provided to the customer prior to the completion of check-out and payment.

25 (d) Product Photo or Product Representation. – The e-commerce site shall provide a photo or visual  
26 representation of the product to help consumers confirm the identity of the item they intend to  
27 purchase. While a product photo or representation may depict certain required information, required  
28 information shall appear separately from the picture/representation. Any information provided in the  
29 picture/product representation shall not conflict with information required by this regulation.

30 (e) Brand Name or Product Manufacturer. – The e-commerce site shall provide the name of the  
31 manufacturer, distributor or the brand of any product offered for sale, where applicable.

32 3.2. E-commerce Site Requirements for Random Quantity Packages. – The following shall apply to e-  
33 commerce sites on which random content packages are offered for sale:

34 (a) Declaration of Identity. – The product declaration of identity shall appear on the e-commerce site in a  
35 conspicuous and prominent location. Wherever applicable, the product brand name shall be combined  
36 with the declaration of identity. This information shall be provided separately from and in addition to  
37 any picture or image of the product.

38 (b) Unit Price. – The unit price of the product shall appear on the e-commerce site in a conspicuous and  
39 prominent location. This information shall be provided separately from and in addition to any picture  
40 or image of the product.

41 (c) Net Quantity Information. – For each product offered for sale in random quantity packages, a range  
42 of potential product net quantities and an estimated maximum possible item net weight shall be  
43 displayed to customers on the e-commerce site in a conspicuous and prominent location.

(d) Product Price – For each product offered for sale in random quantity packages, a range of potential product prices and an estimated maximum possible item price shall be displayed to customers on the e-commerce site in a conspicuous and prominent location. Added cost information (if any) for shipping, delivery, taxes, and other services shall be provided to the customer prior to the completion of check-out and payment.

(e) Product Photo or Product Representation. – The e-commerce site shall provide a photo or representative visual representation of the product to help customers confirm the identity of the item they intend to purchase. While a product photo or representation may depict certain required information, required information shall appear separately from the picture/representation. Any information provided in the picture/product representation shall not conflict with information required by this regulation.

(f) Brand Name or Product Manufacturer. – The e-commerce site shall provide the name of the manufacturer, distributor or the brand when it is different from the person or entity responsible for the website.

**3.3. Bulk Product E-commerce Site Requirements. – The following shall apply to e-commerce sites on which products from bulk are offered for sale:**

(a) Declaration of Identity. – The bulk product declaration of identity shall appear on the e-commerce site in a conspicuous and prominent location. Brand name (if applicable) may be combined with the declaration of identity. This information shall be provided separately from and in addition to any picture or image of the bulk product.

(b) Unit Price. – The unit price of the product shall appear on the e-commerce site in a conspicuous and prominent location. This information should be provided separately from and in addition to any picture or image of the bulk product.

(c) Net Quantity Information. – An estimated minimum and/or maximum possible product net quantity, if applicable to any product offered for sale from bulk, shall be provided on the e-commerce site in a conspicuous and prominent location.

(d) Product Price – For products offered for sale limited to minimum and/or maximum per-order quantities, an estimated minimum or maximum possible product price, where applicable, shall be provided to the customer on the e-commerce site in a conspicuous and prominent location. Added cost information (if any) for shipping, delivery, taxes, and other services shall be provided to the customer prior to the completion of check-out and payment.

(e) Product Photo or Product Representation. – The e-commerce site shall provide a photo or visual representation of the bulk product to help customers confirm the identity of the item they intend to purchase. While a product photo or representation may depict certain required information, required information shall appear separately from the picture/representation. Any information provided in the picture/product representation shall not conflict with information required by this regulation.

**3.4. Non-Consumer Product E-commerce Site Requirements. – The following shall apply to e-commerce sites on which non-consumer products are offered for sale:**

(a) Packaged Non-Consumer E-commerce Products. – If the non-consumer product is packaged as a standard package, the requirements of Section 3.1. E-commerce Site Requirements for Standard Packages shall apply. If the non-consumer product is packaged as a random content package, the requirements of Section 3.2. E-commerce Site Requirements for Random Quantity Packages shall apply.

- 1 (b) E-commerce Products Purchased from Bulk. – If the non-consumer product is not packaged at the  
2 time of purchase, the requirements for Section 3.3. Bulk Product E-commerce Site Requirements shall  
3 apply.

4 **Section 4. Required Information Upon Product Delivery: Requirements for Standard or**  
5 **Random Quantity Packages Purchased from an E-commerce Site**

6 **4.1. Standard Package E-commerce Delivery Requirements. – The information below shall be provided**  
7 **within, upon or together with each standard package delivered to / received by a customer in an e-commerce**  
8 **transaction. Products which are labeled to be compliant with the ULPR meet the requirements for Declaration**  
9 **of Identity, Net Quantity and Responsibility. Products which are not labeled for retail sale as prescribed by**  
10 **the UPLR must provide the following:**

- 11 (a) Declaration of Identity. – The product declaration of identity shall be prominently placed on the  
12 product or package or on written materials attached to or within the package. Where multiple  
13 products are delivered concurrently, it shall be clear which information applies to each product.  
14 Although the declaration of identity may also appear on a receipt or invoice, a receipt or invoice alone  
15 is not an adequate means to provide this information.

- 16 (b) Declaration of Net Quantity – The declaration of net quantity must be prominently placed on the  
17 product or package or on written materials attached to or within the package. Where multiple  
18 products are delivered concurrently, it must be clear which information applies to each product.  
19 Although the declaration of net quantity may also appear on a receipt or invoice, a receipt by itself is  
20 not an adequate means to provide this information.

- 21 (c) Declaration of Responsibility. – The declaration of responsibility, including name and address, must  
22 be prominently placed on the product or package or on written materials provided attached to or  
23 within the package. Where multiple products are delivered concurrently, it must be clear which  
24 information applies to each product.

- 25 (d) Product Price. – The total price of the product shall be provided to the customer, either on a receipt  
26 or invoice or by appearing upon, within, or with the delivered standard package.

27 **4.2. Random Quantity Package E-commerce Delivery Requirements. – The following shall apply to the**  
28 **information provided within, upon, or together with each random quantity package delivered to/received by a**  
29 **customer in an e-commerce transaction:**

- 30 (a) Declaration of Identity. – The product declaration of identity shall be prominently placed on the  
31 product or package or on written materials attached to or within the package. Where multiple  
32 products are delivered concurrently, it shall be clear which information applies to each product.  
33 Although the declaration of identity may also appear on a receipt or invoice, a receipt or invoice alone  
34 is not an adequate means to provide this information.

- 35 (b) Unit Price. – The unit price of the product shall be provided to the customer, either on a receipt or  
36 invoice, by marking or labeling upon the package(s) or by other written documentation included with  
37 the delivered product, and must be in the same units of measure as displayed on the website.

- 38 (c) Net Quantity Information. – The actual net quantity of the product shall be prominently marked or  
39 displayed on the product or on written materials attached to or within the package and must be in the  
40 same units of measure as displayed on the website. Where multiple products are delivered  
41 concurrently, it shall be clear which information applies to each product. Although the declaration of  
42 net quantity may also appear on a receipt or invoice, a receipt or invoice alone is not an adequate  
43 means to provide this information.

(d) Product Price. – The actual charged price for the product must be prominently marked upon the product or be recorded and displayed on documentation within the package. Where multiple products are delivered concurrently, it shall be clear which information applies to each product. The product receipt shall provide the purchaser with cost information including the cost of the product and any applicable additional charges. Although the price information may also appear on a receipt or invoice, it must also be provided as specified above with the product package.

(e) Declaration of Responsibility. – The declaration of responsibility, including name and address, shall be prominently marked upon the product or package or recorded and displayed on documentation within the package. Where multiple products are delivered concurrently, it shall be clear which information applies to each product. Although the declaration of responsibility may also appear on a receipt or invoice, a receipt or invoice alone is not an adequate means to provide this information.

**4.3. Bulk Product E-commerce Delivery Requirements** – The following shall apply to the information provided on or with bulk products delivered to / received by a customer in an e-commerce sale:

(a) Declaration of Identity. – The bulk product declaration of identity shall be provided to the customer on a transaction receipt. A Declaration of Identity may also be marked upon or on written documentation attached to the bulk product, but this does not preclude it from being displayed on the receipt.

(b) Unit Price. – The unit price of the product shall be provided to the customer on the transaction receipt. The Unit Price may also be displayed upon the product or its packaging, but this does not preclude it from being recorded on the receipt.

(c) Declaration of Net Quantity. – The actual net quantity of the product delivered shall be provided to the customer on the transaction receipt. Actual net quantity shall be documented for the transaction as the customer was not present when the product(s) was selected. The Declaration of Net Quantity may be displayed upon the product or its packaging, but this does not preclude it from being recorded on the receipt.

(d) Product Price. – The total price charged for the product shall be provided to the customer on the transaction receipt.

**4.4. Non-consumer Product E-commerce Delivery Requirements.** – The following shall apply to the information provided on or with a non-consumer product delivered to / received by a customer in an e-commerce sale:

(a) Packaged Non-Consumer E-commerce Products. – If the non-consumer product is packaged as a standard package, the requirements in Section 4.1. Standard Package E-commerce Delivery Requirements shall apply. If the non-consumer product is packaged as a random quantity package, the requirements of Section 4.2. Random Quantity Package E-commerce Delivery Requirements apply.

(b) E-commerce Products Purchased from Bulk – If the non-consumer product is not packaged at the time of purchase, the requirements for Section 4.3. Bulk Product E-commerce Delivery Requirements shall apply.

**Section 5. Unit Pricing Requirements on E-Commerce Sites for Products Offered for Sale**

**5.1. Unit Pricing for E-commerce Products** – A unit price is required for bulk and random weight products offered for sale on e-commerce sites.

1 **5.2 Unit Price information for standard packages offered for e-commerce is optional.**

2 **5.3 When providing required or optional unit pricing information, the following requirements apply:**

3  
4 (a) **The unit price must be consistent with the required method of sale for the product.**

5 **(b) Units of Measure. - The declaration of the unit price of a particular commodity in all package sizes**  
6 **offered for sale in a retail establishment shall be uniformly and consistently expressed in terms of:**

7 (1) **Price per kilogram or 100 g, or price per pound or ounce, if the net**  
8 **quantity of contents of the commodity is in terms of weight.**

9 (2) **Price per liter or 100 mL, or price per dry quart or dry pint, if the net**  
10 **quantity of contents of the commodity is in terms of dry measure or volume.**

11 (3) **Price per liter or 100 mL, or price per gallon, quart, pint, or fluid ounce,**  
12 **if the net quantity of contents of the commodity is in terms of liquid volume.**

13 (4) **Price per individual unit or multiple units if the net quantity of contents**  
14 **of the commodity is in terms of count.**

15 (5) **Price per square meter, square decimeter, or square centimeter, or price**  
16 **per square yard, square foot, or square inch, if the net quantity of contents of**  
17 **the commodity is in terms of area.**

18 (c) **Exemptions – The following exemptions from unit pricing requirements above are permitted:**

19 (1) **Small Packages. – Commodities shall be exempt from these provisions**  
20 **when packaged in quantities of less than 28 g (1 oz) or 29 mL (1 fl oz) or when**  
21 **the total retail price is 50 cents or less.**

22 (2) **Single Items. – Commodities shall be exempt from these provisions when**  
23 **only one brand in only one size is offered for sale in a particular retail**  
24 **establishment.**

25 (3) **Infant Formula. – For “infant formula,” unit price information may be**  
26 **based on the reconstituted volume. “Infant formula” means a food that is**  
27 **represented for special dietary use solely as a food for infants by reason of its**  
28 **simulation of human milk or suitability as a complete or partial substitute for**  
29 **human milk.**

30 (4) **Variety and Combination Packages. – Variety and Combination Packages**  
31 **as defined in Section 2.9 and Section 2.10 in the Uniform Packaging and**  
32 **Labeling Regulation** <sup>[Section XX NOTE]</sup> **shall be exempt from these provisions.**

33 **Section XX NOTE: See “Uniform Packaging and Labeling Regulation**

34 **5.4. The unit price must be in consistent units for similar products. For unit pricing to facilitate effective**  
35 **consumer cost comparison, similar products must be unit priced in the same manner (unit of measure). If**  
36 **different brands or package sizes of the same consumer commodity are expressed in more than one unit of**  
37 **measures, the e-commerce site must unit price the items consistently. For example, some juices may be**



labeled by the fluid ounce, pint, quart and gallon. Unit pricing similar liquid products by the fluid ounce, others by the pint and still others by the gallon does not facilitate value comparison. E-commerce sites must determine the most effective units for ensuring value comparison of similar products with varying product sizes.

5.5. When unit pricing, the e-commerce site must be to the nearest cent when a dollar or more. If the unit price is under a dollar, it must be listed to the tenth of a cent or the whole cent, but both methods cannot be used simultaneously. The e-commerce site must accurately and consistently use the same method of rounding up or down to compute the unit price to the whole cent.

5.6. The unit price information must be presented adjacent to the product price information. When present, unit price information is to be provided in a manner so that it is adjacent to all other product pricing information.

## Section 6. Declaration of Quantity– E-commerce Products

6.1. E-commerce Site Requirements – Any e-commerce package offered for sale on an e-commerce site shall be displayed or represented on the e-commerce site with a separate Declaration of Quantity statement which details the quantity of product that the package contains in metric (SI) and US Customary units of measure and/or in count consistent with the requirements for packages intended for retail sale prescribed in the Uniform Packaging and Labeling Regulation (Reference appropriate UPLR section(s)). The Declaration of Quantity must be accurately displayed in relevant units to facilitate value comparison. The declaration shall not be misleading or deceptive.

6.2. E-commerce Package Requirements – E-commerce standard, random quantity packages, and pre-packaged non-consumer packages delivered to customers shall have an accurate Declaration of Net Quantity on the package label. In the event one of these e-commerce packages does not have a label, the Declaration of Net Quantity shall appear upon or in documentation within the package.

6.3. E-commerce Bulk or Unpackaged Product Requirements – E-commerce bulk and non-consumer products which are not packaged prior to purchase, at the time of delivery to the customer, must be accompanied by an accurate Declaration of Net Quantity on a printed transaction receipt. This printed receipt shall include the product identity, unit price, net quantity, and actual charged price in a clear and non-misleading manner for all bulk or non-packaged products. Electronic receipts may be used in place of paper receipts if the information required for a paper receipt is printed upon or contained in each individual bulk and/or non-packaged product. Electronic receipts may be provided in place of printed receipts if the customer specifies an electronic receipt is preferred.

6.4. Measurement Systems:--The International System of Units (SI), known as the metric system and the U.S. customary system of weights and measures are recognized as proper systems to be used in the declaration of quantity for e-commerce products. Units of both systems may be combined in a dual declaration of quantity. Numerical count is permitted for products when the product statement of identity and numerical count are fully informative of the product's contents.

6.5. Largest Whole Common Unit. – This regulation requires that the quantity declaration for similar types and sizes of products be in terms of the largest whole common unit. With respect to a particular product offered for sale, the declaration shall be in terms of the largest common whole unit of weight or measure with any remainder expressed:

(a) SI Units. – in decimal fractions of such largest whole unit.

(b) U.S. Customary Units. –

(1) in common or decimal fractions of such largest whole unit; or

- (2) where appropriate, the next smaller whole unit or units with any further remainder in terms of common or decimal fractions of the smallest unit present in the quantity declaration.

**6.6. Terms: Weight, Liquid Measure, Dry Measure, or Count.** – The declaration of the quantity of a particular E-commerce product shall be expressed in terms of liquid measure if the commodity is liquid, in terms of dry measure if the commodity is dry, in terms of weight if the commodity is solid, semisolid, viscous, or a mixture of solid and liquid, or in terms of numerical count. However, if there exists a firmly established general consumer usage and trade custom with respect to the terms used in expressing a declaration of quantity of a particular commodity, such declaration of quantity may be expressed in its traditional terms if such traditional declaration gives accurate and adequate information as to the quantity of the commodity.

**6.7. SI Units: Mass, Measure.** – A declaration of quantity for an e-commerce product or package shall be expressed in units according to the provisions of the UPLR (add appropriate reference), the applicable Method of Sale Regulation (add appropriate reference) or the applicable regulation(s) of another regulatory agency. Generally, declarations are to follow the requirements detailed below:

- (a) in units of mass shall be in terms of the kilogram, gram, or milligram;
- (b) in units of liquid measure shall be in terms of the liter or milliliter, and shall express the volume at 20 °C, except in the case of petroleum products or distilled spirits, for which the declaration shall express the volume at 15.6 °C, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of malt beverages or a commodity that is normally sold in the refrigerated state, for which the declaration shall express the volume at 4 °C;
- (c) in units of linear measure shall be in terms of the meter, centimeter, or millimeter;
- (d) in units of area measure shall be in terms of the square meter, square decimeter, square centimeter or square millimeter;
- (e) in units of volume other than liquid measure shall be in terms of the liter and milliliter, except that the terms cubic meter, cubic decimeter, and cubic centimeter will be used only when specifically designated as a method of sale;
- (f) Shall be expressed in units so that the numerical declaration is greater than the number one “1” and less than number one thousand “1000”. While a common unit is required for similar products of similar size, when the product size range results in numerical declarations which are less than one or exceed 1000, then added units are permitted.

**Examples:**

500 g, not 0.5 kg

1.96 kg, not 1960 g

750 mL, not 0.75 L

750 mm or 75 cm, not 0.75 m

- (g) SI declarations should be shown in three digits except where the quantity is below 100 grams, milliliters, centimeters, square centimeters, or cubic centimeters where it can be shown in two digits. In either case, any final zero appearing to the right of the decimal point need not be shown; and the declaration of net quantity of contents shall not be expressed in mixed units.

**Example:**

1.5 kg, not 1 kg 500 g

- (h) Only those symbols as detailed in Section 6.5. Largest Whole Common Unit may be employed in the quantity statement on a package of commodity.

**6.8. U.S. Customary Units: Weight, Measure.** – A declaration of quantity for an e-commerce product or package shall be expressed in units according to the provisions of the UPLR (add appropriate reference), the applicable Method of Sale Regulation (add appropriate reference) or the applicable regulation(s) of another regulatory agency. Generally, declarations are to follow the requirements detailed below

- (a) in units of weight shall be in terms of the avoirdupois pound or ounce;
- (b) in units of liquid measure shall be in terms of the United States gallon of 231 cubic inches or liquid quart, liquid pint, or fluid ounce subdivisions of the gallon and shall express the volume at 68 °F, except in the case of petroleum products or distilled spirits, for which the declaration shall express the volume at 60 °F, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of a commodity that is normally sold in the refrigerated state, for which the declaration shall express the volume at 40 °F, and except also in the case of malt beverages, for which the declaration shall express the volume at 39.1 °F;
- (c) in units of linear measure shall be in terms of the yard, foot, or inch;
- (d) in units of area measure shall be in terms of the square yard, square foot, or square inch;
- (e) in units of volume measure shall be in terms of the cubic yard, cubic foot, or cubic inch; and
- (f) in units of dry measure, shall be in terms of the United States bushel of 2150.42 in<sup>3</sup>, or peck, dry quart, and dry pint subdivisions of the bushel.
- (g) Any generally accepted symbol and abbreviation of a unit name may be employed in the quantity statement on a package of commodity

## **Section 7. Declaration of Identity: E-commerce Products**

**7.1. E-commerce Site Requirements** – Any e-commerce package offered for sale on an e-commerce site shall be represented or displayed on the e-commerce site with a separate Declaration of Identity statement which details the specific product that the package contains in ordinary terms expressed in the English language. The declaration of identity needs to be specific enough to distinguish between similar types and varieties of products. A manufacturer brand name is not a statement of identity. The declaration shall not be misleading or deceptive.

### **7.2. The identity declaration shall be in terms of:**

- (a) the name specified in or required by any applicable federal or state law or regulation or, in the absence of this;
- (b) the common or usual name or, in the absence of this;
- (c) the generic name or other appropriate description, including a statement of function (such as “cleaning powder”).

**7.3. E-Commerce Package Requirements** – The same Declaration of Identity shall appear on the product label, on the product, attached to the product or within the product package in a clear and non-misleading fashion when delivered to the purchaser.

**Section 8. Declaration of Responsible Party: E-commerce Products**

**8.1. E-commerce Packages. – Any e-commerce package offered for sale on an e-commerce site which is not owned or operated by the person responsible for the manufacture, packaging, labeling or distributing of the e-commerce package shall specify conspicuously either 1) on the label of the e-commerce package or 2) on documentation within the e-commerce package if there is no label, marking of the name and address of the product manufacturer, packer, or distributor. The name shall be the actual corporate name, or, when not incorporated, the name under which the business is conducted. The address shall include street address, city, state (or country if outside the United States), and ZIP Code (or the mailing code, if any, used in countries other than the United States); however, the street address may be omitted if it is listed in any readily accessible, well-known, widely published, and publicly available resource, including but not limited to a printed directory, electronic database, or website.**

**If a person manufactures, packs, or distributes a commodity at a place other than his principal place of business, the label may state the principal place of business in lieu of the actual place where the commodity was manufactured or packed or is to be distributed, unless such statement would be misleading. Where the commodity is not manufactured by the person whose name appears on the label, the name shall be qualified by a phrase that reveals the connection such person has with such commodity, such as “Manufactured for and packed by \_\_\_\_\_,” “Distributed by \_\_\_\_\_,” or any other wording of similar import that expresses the facts.**

**8.2. E-commerce Bulk Products and Select Random Quantity Packages. – All responsibility for bulk e-commerce products and e-commerce random quantity packages bearing no Declaration of Responsible Party information shall be that of the person or entity responsible for the e-commerce site.**

**8.3. E-commerce Site Requirements. – The operator of an e-commerce site offering products for sale shall comply with at least one of the following requirements regarding each product offered for sale:**

- (a) The e-commerce site shall provide the name and address of the product manufacturer, packer or distributor.**
- (b) The e-commerce site shall provide the name and website address of the product manufacturer, packer, or distributor.**
- (c) The e-commerce site shall provide the product brand name or the name of the product manufacturer, distributor, or packer, when product manufacturer, distributor or packer address information is displayed on the package label at the time the product is delivered to the purchaser.**
- (d) When the e-commerce site owner or operator is the also the product manufacturer, packer or distributor, the e-commerce site shall clearly and conspicuously display its name, address and contact information on both the e-commerce site and on the transaction receipt.**

**Section 9. Product Photograph or Accurate Product Depiction/Representation: E-commerce Site Requirements**

**9.1. E-commerce Packages. Any e-commerce package offered for sale on an e-commerce site shall be represented on the site with a current photograph of the package offered for sale. As an alternative, a detailed and accurate photographic depiction or representation of the package may be displayed. This picture or graphical representation shall be sufficiently sized, detailed and clear to enable the customer to distinguish this package or product from similar packages including varying sizes, varieties and product functions.**

**9.2. E-commerce Random Weight Packages. – E-commerce random weight products offered for sale on an e-commerce site shall be accompanied on the site by a representative picture or photographic depiction of product (packaged or unpackaged) which is being offered for sale. This picture or photographic depiction shall**

be sufficiently sized, detailed, and clear to enable the customer to see the product and the pictured item shall be representative of the product being offered for sale.

9.3. E-commerce Bulk Products and Select Random Quantity Packages. – Bulk products offered for sale on an E-commerce site shall be accompanied on the site by a representative picture or photographic depiction of the unpackaged product which is being offered for sale. Products packaged in random quantity packages shall be displayed on the site with a representative depiction of a representative package, a clear and conspicuous statement explaining that packaged products are of random quantity, and instructions to customers regarding the means to specify a maximum or minimum package quantity in ordering and purchasing the product. The picture(s) or photographic depiction(s) shall be sufficiently sized, detailed, and clear to enable the customer to see the product and the pictured item shall be representative of the product being offered for sale.

9.4. E-commerce Non-Consumer Packages. – Non-consumer products offered for sale on an e-commerce site shall be accompanied on the site by a representative picture or photographic depiction of the product which is being offered for sale. This picture or photographic depictions shall be sufficiently sized, detailed, and clear to enable the customer to see the product and the pictured item shall be representative of the product being offered for sale

9.5. Pictures on Receipts: Transaction receipts are not required to provide pictures or photographic depictions

## Section 10. Prominence and Placement of Required Information on E-commerce Sites: Offering E-commerce Products for Sale

10.1. General. – All information required to appear on the e-commerce site which offers products for sale shall appear thereon in the English language and shall be prominent, definite, plain, and conspicuous as to size and style of letters and numbers and as to color of letters and numbers in contrast to color of background. Any required information that is either in hand lettering or hand script shall be entirely clear and equal to printing in legibility.

10.1.1. Location. – The required e-commerce site declarations below must be present in the top 50% the screen in which the product is offered for sale:

(a) identity,

(b) net quantity,

(c) product price,

(d) brand or manufacturer name and

(e) package picture or photographic representation/depiction.

10.1.2. Style of Type or Lettering – The required e-commerce site declarations shall be in such a style of type or lettering as to be boldly, clearly, and conspicuously presented with respect to other type, lettering, or graphic material on the screen.

10.1.3. Color Contrast. – The required e-commerce site declarations shall be in a color that contrasts conspicuously with its background.

10.1.4. Package Picture or Photographic Representation. – The product picture or photographic depiction shall be in the actual colors of the package or product. Slight variations in color shading are acceptable.

10.2. Combined Declarations of Required Information. – One or more of the required e-commerce site declarations can be combined if the resulting statement is clear and not misleading. This shall not apply to

product photograph or photographic representation. Combined declarations shall be of a consistent size same size and font, excepting the product price which may be in a larger size and a different font.

10.2.1. Combined Declarations of Required Information – The declarations of identity, net quantity, product price and/or brand or manufacturer name can be combined into a single statement on an e-commerce site provided the information is clear and not misleading. A combined statement may appear on a single line or multiple lines as illustrated below:

Examples:

1 kg (2.2 lb) Brand X Laundry Detergent \$4.99

Brand X

Laundry Detergent

1 kg (2.2 lb)

\$4.99

10.2.2. Free Area – The area surrounding a required individual or combined declaration on an e-commerce site shall be free of printed information:

(a) above and below, by a space equal to at least the height of the lettering in the declaration; and

(b) to the left and right, by a space at least equal to twice the width of the letter “N” of the style and size of type

10.3. Alternate Languages. – An e-commerce site may provide product information in one or more languages in addition to English. When an e-commerce site does provide any required product information in an additional language, all the required information specified in this regulation must be provided in that additional language or languages.

## Section 11. Prominence and Placement: Delivered E-commerce Packages, Products and Receipts

11.1. General. – All information required to appear on an e-commerce package, product, or receipt shall appear thereon in the English language and shall be prominent, definite, plain, and conspicuous as to size and style of letters and numbers and as to color of letters and numbers in contrast to color of background. Any required information that is either in hand lettering or hand script shall be entirely clear and equal to printing in legibility.

11.2. Packages Intended for Sale in Retail Locations–A package properly labeled to comply with the retail shelf requirements of the UPLR will also comply with the e-commerce package label requirement.

11.3. Orientation of Required Declarations. – The required declarations on packages, products, or receipts shall be presented in such a manner as to be generally consistent to the orientation of the label or package.

## Section 12. Effective Date

This regulation shall become effective on \_\_\_\_\_.

Given under my hand and the seal of my office in the City of \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_.

Signed \_\_\_\_\_

Note: PALS submitted the following section and language with the intent to be consistent with the above proposal. The intent of PALS is for the following addition is to accompany the adoption of the above language. And be added to the Weights and Measures Law:

# **Section 11. Powers and Duties of the Director**

## **The Director shall:**

**(s) have the authority to employ recognized procedures and regulations designated within NIST Handbook 130, Uniform Laws and Regulations in the Areas of Legal Metrology and Fuel Quality, "E-Commerce Regulation".**

## **Previous Action:**

N/A

## **Arguments in Favor:**

### **Regulatory:**

- Numerous regulators supported this item as a voting item. The importance of moving forward with this item was expressed due to the numerous online retailers not being regulated in the same manner as non-online retailers.

### **Industry:**

- Chris Guay, Chairman of the PALS reported that PALS met to provide overviews of the content for the proposed e-commerce regulation which was submitted for consideration in August and for the potential Best Practice Guidance Document for quantity-related expressions which may move forward in 2022. Support was strong for the e-commerce proposal, with several comments that NCWM was already behind on e-commerce and that NCWM leadership would be timely and useful.

### **Advisory:**

- None

## **Arguments Against:**

### **Regulatory:**

- None

### **Industry:**

- None

### **Advisory:**

- None

## **Neutral Comments:**

### **Regulatory:**

- None

### **Industry:**

- None

### **Advisory:**

- None

**Item Development:**

The Committee gave an Assigned status to this item at the 2022 Interim Meeting and believes that more outreach to online retailers is needed. The Committee is uncertain that the impacted industry has had an opportunity to review and engage in the process.

The Committee also considered adding an effective date to the proposal to address this concern but determined it would be better for PALS to reach out to retailers first and then consider the need for an effective date based on the feedback received.

The Committee replaced the original proposal with new language provided by PALS on January 9, 2022. The new language also includes a new section, “Section 11. Powers and Duties of the Director.” This new section is not a priority item and must be submitted as a separate agenda item by PALS for consideration by the NCWM.

Additional recommendations include:

- reach out to all stakeholders including online retailers, producers, consumer groups, trade associations, and engage them in the PALS work
- consider comments submitted in January by NIST OWM to the PALS Chairman and L&R Committee
- reach out to other federal agencies with authority to regulate online retailers
- broaden the definition of current section 2.12. E-commerce Consumer Commodity.
- conduct mock inspections of these e-commerce websites to help develop the item
- prepare a presentation which illustrates how to apply the requirements
- consider making the suggested amendments to section 5 “Unit Pricing Requirements for Products Offered for Sale on an E-commerce Site” outlined in the OWM analysis supporting documentation
- develop an EPO, develop a best practice guide for web design, develop a presentation on how to apply the requirements for E-commerce websites and add a section for unit pricing requirements
- consider adding an effective date to provide sufficient time for online retailers to prepare for regulation

**Original Justification:**

While e-commerce continues to grow and evolve, most people, entities and regulators are trying to extrapolate existing requirements to these sites and products involved with e-commerce – with varying degrees of success. This regulation is intended to be a foundation for e-commerce regulation, focusing just on basic requirements such as the name of the item the net quantity of the item, and the price of the item.

Some may argue that existing regulations are good enough, NCWM should wait for other Federal Agencies to take the lead, Companies may have to change their sites or products to comply.

**Regional Associations’ Comments:**

WWMA 2021 Annual Meeting: Mr. Chris Guay, (PALS Subcommittee Chair) – Gave a presentation on this item. Recommended this Item as Developing. Mr. Kurt Floren, (County of Los Angeles, CA) – Mr. Floren pointed out several editorial changes, and suggested that this becomes a Voting Item. Mr. Kevin Schnepf, (CDFA-DMS) – Mr. Schnepf also suggested editorial changes. Ms. Lisa Warfield, (NIST OWM) – Ms. Warfield recommends that PALS reach out to other stakeholders. She also suggested that a broader definition of section 2.12:

**“any commodity offered or exposed for sale by weight, measure or count from bulk or in packaged form.”**



Ms. Warfield also suggested mock inspections of these e-commerce websites to help develop the item and recommends that PALS consider developing a presentation which illustrates how to apply the requirements to a mockup of different ecommerce websites.

The Committee recommends that this Item be Assigned to the PALS Subcommittee. The Committee recommends that PALS develop a proposed amendment to Section 12 “Powers and Duties of the Director” in the Uniform Weights and Measures Law to authorize the Director to adopt regulations that encompass the various aspects necessary to ensure ecommerce websites and other regulated sales outlets comply with legal metrology requirements. The Committee also recommends that PALS consider making the suggested amendments to section 5 “Unit Pricing Requirements for Products Offered for Sale on an E-commerce Site” outlined in the OWM analysis supporting documentation. The Committee recommends that PALS provides stakeholder outreach to Federal agencies, major e-commerce retailers, smaller e-commerce retailers, trade associations and consumer groups. The Committee also recommends that PALS consider Ms. Warfield’s comments to develop material for e-commerce websites and conduct practical applications of the regulation, to develop a presentation which illustrates how to apply the requirements to different e-commerce websites.

SWMA 2021 Annual Meeting: Mr. Chris Guay (PALS Subcommittee Chair) – Gave a presentation of the work done by the group. Dr. Matthew Curran (State of Florida) commented on the need for these regulations for accountability and enforcement. NIST OWM provided written analysis that suggested this item be developing. They recommended reaching out to other stakeholders, amend the powers and duties of State Directors, develop an EPO, develop a best practice guide for web design, develop a presentation on how to apply the requirements for E-commerce websites and add a section for unit pricing requirements.

The Committee recommends this item be Assigned to PALS for further development using the guidance from NIST OWM written analysis

CWMA 2021 Interim Meeting: Chris Guay, Chair of PALS commented that this is a new effort that was originally intended as a guidance document but has evolved into a stand-alone model regulation. He reviewed the main components of the proposed language. PALS recommends this item move to Informational status for further input. Lisa Warfield, NIST Technical Advisor commented that OWM recommends that PALS develop a strategy to reach out to stakeholders and invite them to participate in the development of this item. She asks the Committee to consider the NIST analysis for this item which was submitted to NCWM and CWMA L&R Committee members. The Committee recommends this item be given informational status for stakeholder input.

NEWMA 2021 Interim Meeting: PALS Chair Guay, commented that this item was originally developed as a guidance document rather than model language for regulation. As the work has progressed on this item and the demand in the marketplace continues to grow, it has become apparent there needs to be model regulation for e-commerce. Mr. Guay commented that PALS has fully developed the Item and welcomes comments from the regions. Mr. Mike Sikula (New York) recommends this item move forward as an Informational item to allow industry members time to vet and to attend future meetings and comment on the model language. Mr. David Sefcik, (NIST Technical Advisor) reviewed the NIST analysis comments and stated that a copy has been provided to PALS for review. Mrs. Cheryl Ayer (New Hampshire) expressed her appreciation to PALS and supports the item moving forward. Mr. John McGuire (New Jersey) expressed his appreciation to Mr. Guay for his long and hard work on this item. He concurs the item should move forward with Informational status. The Committee recommends this item move forward with Informational status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

## **OTH-07.1            D    Fuels and Lubricants Subcommittee**

### **Source:**

NCWM Fuels and Lubricants Subcommittee (FALS)

**Purpose:**

Provide an update of the activities of this Subcommittee which works on direction from and reports to the L&R Committee. The mission of FALS is to assist the L&R Committee in the development of agenda items that affect Handbook 130, Uniform Fuels and Automotive Lubricants Inspection Law and Uniform Fuels and Automotive Lubricants Regulation. The Subcommittee consists of regulators and associate members who have subject matter expertise in fuels and lubricants. The Subcommittee will be called upon to aid in the development, provide guidance, and help establish NCWM position on items concerning fuels and lubricants.

**Item Under Consideration:**

N/A

**Item Development:** The Committee heard comments from Chuck Corr on MOS 22.1 and FLR 22.1 and recommends FALS review and address these concerns within NIST Handbook 130. These comments have been provided to the Chair of FALS for consideration.

Additionally, the Committee recommends that FALS review all EPA & FTC title citations throughout handbook 130.

**Background/Discussion:**

This item is to provide a report on the activities of the Fuels and Lubricants Subcommittee (FALS) which reports and provides recommendations to the Laws and Regulations Committee.

For more information or to provide comment, please contact the FALS Chair:

Mr. Bill Striejewski  
Nevada Department of Agriculture/Bureau of Petroleum Technology  
(775)-353-3792, [wstrijewski@agri.state.nv.us](mailto:wstrijewski@agri.state.nv.us)

The Fuels and Lubricants Subcommittee (FALS) met on Sunday, January 9, 2022, in a hybrid fashion, with attendees both in-person and via zoom at the 2022 NCWM Interim Meeting in Tampa, FL, to review items related to fuel and automotive fluid standards that appear on the L&R agenda. FALS discussed the item block (Item Block 6) that has been assigned to the subcommittee, with a report and comments from members of the Focus Group working on the block. There was also discussion of one item block that had been submitted by FALS following the Annual Meeting in July, and of two items of interest to the Subcommittee. Finally, two issues were raised as New Business. Those issues and the existing Focus Group will be discussed below.

**Item Block 6 Transmission Fluid Focus Group (B6: MOS-21.1. Section 2.36.2. Labeling and Identification of Transmission Fluid and B6: FLR-21.2. Section 3.14.1. Labeling and Identification of Transmission Fluid):** FG Chair Joanna Johnson (Automotive Oil Change Association) provided an update on the work of the FG since its formation in January 2021, stating that at the current time the group is deadlocked and unable to reach common ground. Several other FG members echoed those sentiments. It was suggested that it might be helpful and move the group's work forward to bring one or more additional people into the FG, especially those from OEMs. However, a person who might serve this role well is not an NCWM member. For this reason, FALS hoped that L&R would agree that bringing in expertise from outside NCWM would be beneficial. Following Open meetings, L&R was indeed agreeable to this request. The Focus Group was originally formed because while the model regulation in NIST Handbook 130 is sufficient, there is no licensing system for transmission fluid as there is with engine oils. The FG is working to harmonize the various standards across the industry.

**NIST Recommendation for Citing Federal Regulations:** During the New Business portion of the FALS agenda, Lisa Warfield (NIST Technical Advisor for L&R) brought up a recommendation from the NIST OWM L&R Analysis, a supporting document for the Fall, 2021 regional meetings and was included on the Publication 15 webpage under Additional Letters Presentations and Data for the L&R Committee. Ms. Warfield suggested formalizing citations under federal language to include the full title with the CFR number to increase clarity for the reader. There was some discussion during the FALS meeting, but as many were not familiar with the document or the recommendation, this will be discussed further later.

**Request for Assistance Crafting A Form 15:** Allan Morrison (California) mentioned that ASTM has completed an updated specification on CNG and LPG (ASTM D8080) and was hoping for assistance in getting these updates into Handbook 130. There was some discussion and offers to assist Mr. Morrison prepare one or more Form 15's for the next cycle.

For more information or to provide comment, please contact the FALS Chair:

Mr. Bill Striejewski  
Nevada Department of Agriculture, Division of Measurement Standards  
775-353-3792, [wstrijewski@agri.state.nv.us](mailto:wstrijewski@agri.state.nv.us)

**Regional Associations' Comments:**

WWMA 2021 Annual Meeting: The Committee heard a report from the FALS Subcommittee Chair Striejewski. The Committee supports the work of FALS.

SWMA 2021 Annual Meeting: The Committee heard comments from Mr. Randy Jennings on behalf of Chair Striejewski. The Committee supports the work of FALS.

CWMA 2021 Interim Meeting: Randy Jennings, FALS Vice-chair commented that there are many items on the FALS agenda, and that the subcommittee had adopted a Standard Operating Procedure that will guide its work moving forward.

NEWMA 2021 Interim Meeting: Randy Jennings, FALS Vice-chair reporting for Bill Striejewski, Chair commented that FALS has developed a Standard Operating Procedure document and stated that the Subcommittee will follow the procedure moving forward.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

**OTH-11.1 D Packaging and Labeling Subcommittee**

**Source:**

NCWM Packaging and Labeling Subcommittee (PALS)

**Purpose:**

Provide an update of the activities of this Subcommittee which reports to the L&R Committee. The mission of PALS is to assist the L&R Committee in the development of agenda item, NCWM positions and new standards related to packaging and labeling. The Subcommittee will also be called upon to provide important and much needed guidance to the regulatory and consumer packaging communities on difficult questions. PALS will report to NCWM L&R Committee. The Subcommittee is comprised of a Chair, eight voting members, and anyone interested in packaging and labeling standards.

**Item Under Consideration:**

N/A

**Background/Discussion:**

This item is to provide a report on the activities of the Packaging and Labeling Subcommittee which reports and provides recommendations to the Laws and Regulations Committee.

For more information or to provide comment, please contact the PALS Chair:

Mr. Chris Guay  
CGGT  
513-652-6597, [guay.cb@gmail.com](mailto:guay.cb@gmail.com)

PALS is comprised of four voting regulatory officials (one from each region) and four voting members from industry (retailers and manufacturers) in addition to its Chair and NIST Technical Advisor. Members of NCWM can participate in the PALS meetings by contacting Chair Guay. PALS work is being developed through monthly webinar meetings and at the NCWM meetings. PALS members are responsible for providing updates at their Regional Meetings. Chair Guay added PALS will be developing proposals and in addition providing guidance and recommendations on existing proposals as assigned by the NCWM L&R Committee. He stressed the importance of having key federal agencies (FDA, FTC, and USDA) participating.

NCWM 2020 Interim Meeting: PALS Chair, Mr. Chris Guay, reported that PALS is continuing to draft a proposed regulation and accompanying “Best Practice” document regarding products sold via e-commerce. The focus of this document is to help provide more clarity on the information necessary for consumers to make informed product choices on-line and for consumers to confirm receipt of the products ordered. PALS currently believes certain information is better included in a regulation while other information is better provided as guidance or Best Practice document. The Subcommittee will work on development of this proposed regulation and proposed guidance in the spring of 2020 with a target to have a draft proposal prepared by the 2020 NCWM Annual meeting. Separately, PALS believes the text of “Recommended Best Practice” for quantity expressions is complete. PALS is developing an illustrative appendix with graphics support being provided by the NCWM office. PALS is planning to have the “Recommended Best Practice” Document for quantity related expressions appearing on a principal display panel and the proper declaration of net quantity completed by the summer of 2021. The document has been completed and the work continues as an illustrative appendix.

PALS reviewed the framework for a proposed Handbook 130 regulation regarding products sold through e-commerce. This regulation would focus on ensuring buyers have sufficient information to make an accurate product selection and value comparison at the time of purchase, while also ensuring the buyer can confirm the product purchased is the product they receive. PALS plans to make this proposal its priority for 2021.

NCWM 2021 Annual Meeting: PALS reviewed a developing draft regulation pertaining to websites which offer products for sale through e-commerce, and to products which are sold and delivered because of an e-commerce purchase. PALS received comments from those in attendance at the PALS work session and they believe the next step should be to forward this proposal to regions for broader stakeholder review and comment. PALS plans to submit a proposal for this item to obtain comments at the 2021 Fall Regional Association Meetings.

#### **Regional Associations’ Comments:**

WWMA 2021 Annual Meeting: The Committee heard a report from the PALS Subcommittee Chair Guay. The Committee supports the work of PALS.

SWMA 2021 Annual Meeting: Chris Guay (PALS) stated that they continue to work on PALS and will present their findings to the FDA for food safety as it relates to E-commerce. He also requested more involvement from stakeholders in their meetings to receive input as PALS moves forward on E-commerce regulation.

The Committee recognizes and supports the work of PALS.

CWMA 2021 Interim Meeting: Chris Guay, Chair of PALS invited participation from CWMA members interested in packaging and labeling.

NEWMA 2021 Interim Meeting: Chris Guay, PALS Subcommittee Chair commented that he will be speaking on behalf of the Committee at an upcoming FDA hearing on e-commerce.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

**ITEM BLOCK 1 (B1) V HB 130, UPLR, SEC. 2.8. MULTIUNIT PACKAGE. HB 133 MODIFY “SCOPE” FOR CHAPTERS 2 – 4, ADD A NOTE FOLLOWING SECTIONS 2.3.7.1. AND 2.7.3., CREATE A CHAPTER 5. SPECIALIZED TEST PROCEDURES AND HB133 APPENDIX F. GLOSSARY**

B1: PAL-19.1 Section 2.8. Multiunit Package  
 B1: NET-19.1 Section 1.2.4. Maximum Allowable Variation  
 B1: NET-19.2 Modify “Scope” for Chapters 2 – 4, and a note following Section 2.3.7.1. Maximum Allowable Variation (MAV) Requirement and 2.7.3. Evaluation of Results – Compliance Determinations  
 B1: NET-19.3 Create a Chapter 5, Specialized Test Procedures  
 B1: NET-19.4 Appendix F. Glossary

**(B1:NET-19.3, “Handbook 133, Create a Chapter 5. Specialized Test Procedures” must be adopted in order for the remainder of Item Block 1 to proceed.)**

**B1: PAL-19.1 V Section 2.8. Multiunit Package**

**Source:**

NIST, Office of Weights and Measures

**Purpose:**

Eliminate conflicts between the UPLR and Federal Trade Commission (FTC) regulation for multiunit packages cited in 16 CFR 500.27.

**Item Under Consideration:**

Amend Handbook 130, Uniform Packaging and Labeling Regulation as follows:

**2.8. Multiunit Package.** – A package containing two or more individual packages of the same commodity, in the same quantity, intended to be sold as a multiunit package, ~~but where the component packages are labeled individually in full compliance with all requirements of this regulation.~~

**B1: NET-19.1 V Section 1.2.4. Maximum Allowable Variation**

**Purpose:**

Amend language regarding the total quantity declaration on multiunit or variety packages, when the MAV may need to be recalculated based on the Total Quantity MAV.

**Item Under Consideration:**

Amend Handbook 133, Chapter 1 as follows:

**1.2.4. Maximum Allowable Variation**

The limit of the “reasonable minus variation” for an under filled package is called a “Maximum Allowable Variation” (MAV). An MAV is a deviation from the labeled weight, measure, or count of an individual package beyond which the deficiency is considered an unreasonable minus error. Each sampling plan limits the number of negative package errors permitted to be greater than the MAV.

Packages may be offered for sale individually or offered for sale in multiunit packages or variety packages which contain two or more individual inner packages.

When packages are tested whether individual, multiunit, or variety packages, the MAV is applied to each package in the sample which has a minus package error.

When a total quantity declaration on a multiunit or variety package is being verified, and the MAV is not determined in terms of a percent of the labeled quantity, a “Total Quantity MAV” is compared to each minus Total Quantity Package Error(s) to determine if it is unreasonable.

*Total Quantity Package Error = Sum of Individual Inner Package Errors*

(Amended 2010 and 20XX)

Before determining the MAV and proceeding with tests of the quantity of contents in any multiunit or variety package, calculate the sum of the labeled quantity statements of all individual inner packages and verify that the labeled Total Quantity Statement reflects the accurate sum. If an error exists between the sum of the labeled quantity statements of individual inner packages and the Total Quantity Statement, the package is not in compliance and shall be deemed in violation of labeling requirements of NIST Handbook 130, Uniform Packaging and Labeling Regulation, requiring an accurate summing and statement of total quantity. Do not test for net quantity determination.

1.2.4.1. Total Quantity MAV for Multiunit and Variety Packages (See Chapter 5. “Specialized Test Procedures”)

- a. Multiunit Package. – In verifying a total quantity declaration that appears on a multiunit package compare a Total Quantity MAV to each minus Total Quantity Package Error to determine if the error is unreasonable. Calculate the Total Quantity MAV using the following formula:

*Total Quantity MAV = Number of Individual Inner Packages × MAV for Individual Inner Package Quantity*

Terms are defined as:

Number of Individual Inner Packages. – The total number of individual inner packages having a uniform labeled weight, measure and/or count.

MAV for Individual Inner Package Quantity. – The MAV for the labeled quantity for the individual inner packages specified in the proper table of MAVs in Appendix A. “Tables.”

- b. Variety Package. – In verifying a total quantity declaration that appears on a variety package, compare a Total Quantity MAV to each minus Total Quantity Package Error to determine if the error is unreasonable. Calculate the Total Quantity MAV using the following formula:

*Total Quantity MAV = The sum of the applicable MAVs for all Individual Inner Packages*

Variety packages include commodities that may be generically similar, but differ in weight, measure, volume, or design variation (e.g., color, flavor, scent, etc.) For these packages a Total Quantity MAV is calculated for each product type within the variety package and the results are added to obtain a Total Quantity MAV for comparison to each minus Total Quantity Package Error.

Terms are defined as:

Number of Individual Inner Packages. – The total number of similar but not identical individual inner packages with differing and/or uniform labeled weight or measure.

MAV for Individual Inner Package Quantity. – The MAV for the quantity declared for the individual inner packages specified in the appropriate MAV table in Appendix A. “Tables.”

(Added 20XX)

**B1: NET-19.2 V Sections 2.1. Scope, 3.1. Scope, 4.1. Scope, 2.3.7.1. Maximum Allowable Variation (MAV) Requirement, and Section 2.7.3. “Evaluation of Results – Compliance Determinations”**

**Purpose:**

With the adoption of Handbook 133, Chapter 5. Specialized Test Procedures this item clarifies the language within Handbook 133.

**Item Under Consideration:**

Amend Handbook 133, Chapters 2, 3, and 4 as follows:

Add a Note to Handbook 133, Chapter 2, Section 2.1. “Scope;” Section 3.1. “Scope;” and Section 4.1 “Scope” that refers users to the Chapter 5. “Specialized Test Procedures” for these types of packages.

**Note: If Multiunit or Variety Packages are to be inspected, refer to Chapter 5. “Specialized Test Procedures” for guidance in testing.**

**If a total quantity declaration is being verified and the MAV to be applied is not based on a percentage of the labeled quantity, refer to Section 1.2.4.1. “Total Quantity MAV for Multiunit and Variety Packages.” (Added 20XX)**

Add the following note to HB133, Chapter 2, Section 2.3.7.1 “Maximum Allowable Variation (MAV) Requirement” and Section 2.7.3. “Evaluation of Results – Compliance Determinations.”

**Note: If a total quantity declaration on a multiunit or variety package is being verified, and the MAV applied is not based on a percent of the labeled quantity see Section 1.2.4.1. “Total Quantity MAV for Multiunit and Variety Packages.” (Added 20XX)**

**B1: NET-19.3 V Create a Chapter 5. Specialized Test Procedures**

**Purpose:**

Create new chapter in Handbook 133 that has specialized test procedures to verify the inner contents of multiunit and variety packages.

**Item Under Consideration:**

Amend Handbook 133, Chapter 5. Specialized Test Procedures as follows:

**5.1. Scope**

**The following procedures are used in either verifying the net quantity of contents of retail multiunit packages with individual inner packages of the same commodity that have identically labeled quantities or in verifying retail variety packages with individual inner packages that may differ in labeled weight, measure or volume.**

**1. The procedure used is determined by using the labeled net contents.**

- **Use Section 5.2. “Individual Package Quantity” if a total net quantity of contents is not declared on the label of a multiunit or variety package of food for human consumption or meat or meat products from a USDA official establishment (see explanation in Section 5.2. for specific exemptions to requirement for a total net quantity statement.)**

- Use Section 5.3, “Total Quantity” if a total net quantity of contents is declared on the package.

Note: If the packages are labeled with additional quantity statements (i.e., dry volume, area, length, width, or thickness), added steps or, when proper, additional Total Quantity MAVs may be required in testing the accuracy of additional quantity statements.

## 5.2. Individual Package Quantity

This procedure is used only for verifying the total quantity statement of open or transparent-wrapped multiunit packages of foods for human consumption or meat or meat products under the authority of FDA or USDA, respectively. Under USDA-FSIS regulations (9 CFR 317.2 [h](12)) and FDA regulations (21 CFR 101.7 Chapter I [s]), such open multiunit packages that do not obscure the number of individual inner packages or the labeling of each individual inner package (compliant with all other location, type size, and applicable requirements) are not required to bear a total net quantity statement on the outside of the package (see Figure 1. Open or Transparent Multiunit Package with Fully Visible Individual Quantity Declarations).

Cereal	Cereal	Cereal	Cereal	Cereal
Net Wt. 100 g (3.5 oz)	Net Wt. 100 g (3.5 oz)	Net Wt. 100 g (3.5 oz)	Net Wt. 100 g (3.5 oz)	Net Wt. 100 g (3.5 oz)

**Figure 1. Open or Transparent Multiunit Package with Fully Visible Individual Quantity Declarations**

### 5.2.1. Test Procedure for Multiunit Packages Exempt from Total Quantity Statement (see Section 5.2.)

1. Follow Section 2.3.1. “Define the Inspection Lot.” The inspection lot is defined as the total number of individual inner packages in the multiunit packages (e.g., 120 packages × 12 individual inner packages = Inspection Lot size is 1440). Select “Category A” or “Category B” sampling plan in the inspection (depending on location of test) and select a random sample (See Section 2.3.4. “Random Sample Selection”).
2. Determine an average tare weight according to Section 2.3.5. “Procedures for Determining Tare and Average Tare Weight.” Follow Section 2.3.6. “Determine Nominal Gross Weight and Package Errors” to determine package errors.
3. Determine the net quantity of each individual inner package in the sample.
  - If a count declaration is declared on the multiunit packages, verify using Section 4.2. “Packages Labeled by Count” and apply the appropriate MAV using Appendix A. Table 2- 7. MAV for Packages Labeled by Count applied.
4. If minus package errors are found in the sample, the value of the MAV to be applied is determined by matching the labeled net quantity for the individual inner packages to the applicable quantity range in the appropriate MAV table using Appendix A “Tables”.

Compare the MAV for the labeled quantity to each minus package error in the individual inner packages to determine if any are unreasonable using Section 2.3.7.1. “MAV Requirement”. If the number of unreasonable errors exceeds the amount allowed for the sample size (see Appendix A, Tables 2-1. “Sampling Plans for Category A” or Table 2-2. “Sampling Plans for Category B.” Column 4), the sample fails. If the sample passes, go to Step 5.



- 1        5. Apply Section 2.3.7.2. “Average Requirement.” Follow the procedures in Section 2.3.7.  
 2        “Evaluation for Compliance.”

3        **5.3. Total Quantity**

4        Use this procedure to test multiunit packages labeled with a total count and/or total net quantity declaration.  
 5        This procedure can be used to verify the total net quantity declared on open or closed multiunit packages or  
 6        multiunit packages with transparent or opaque packaging. If the quantities of the individual inner packages  
 7        vary (which is allowed in Variety Packages) or, if the quantity of the individual inner packages is not declared,  
 8        see Section 5.4. “Exceptions”.

9        Before determining the MAV and proceeding with tests of the quantity of contents in any multiunit package,  
 10       calculate the sum of the labeled quantity statements of all individual inner packages and verify that the labeled  
 11       Total Quantity Statement reflects the accurate sum. If an error exists between the sum of the labeled quantity  
 12       statements of individual inner packages and the Total Quantity Statement, the package is not in compliance  
 13       and shall be deemed in violation of labeling requirements of NIST Handbook 130 Uniform Packaging and  
 14       Labeling Regulation, requiring an accurate summing and statement of total quantity. Do not test for net  
 15       quantity determination.

16       **5.3.1. Test Procedure for Multiunit Packages**

17       1. Follow Section 2.3.1. “Define the Inspection Lot” to define the inspection lot (number of multiunit  
 18       packages). Use the inspection lot size and select a “Category A” or “Category B” sampling plan  
 19       (see Appendix A. “Tables”) in the inspection plan and select a random sample. (see Section 2.3.2.  
 20       “Select Sampling Plans” and Section 2.3.4. “Random Sample Selection”).

21       2. For packages labeled by weight, determine the tare weight and nominal gross weight. Follow  
 22       Section 2.3.5. “Procedures for Determining Tare” through Section 2.3.6. “Determine Nominal  
 23       Gross Weight and Package Error” to determine package errors in the quantity of the individual  
 24       inner packages as compared to the total package quantity declaration.

25       3. Determine the net quantity of each multiunit package and calculate the Total Quantity Package  
 26       Error for each multiunit package.

27       The Total Quantity Package Error is the sum of the errors found in the individual inner packages.

28       *Total Quantity Package Error = Sum of Individual Inner Package Errors*

29       If applicable, verify the count declaration of the individual inner packages. To determine the MAV  
 30       for count, use Appendix A. Table 2-7. “MAV for Packages Labeled by Count.”

31       4. If minus Total Quantity package errors are found in the sample, use the MAV for the individual  
 32       inner package labeled quantity. (see Section 1.2.4.1. “Total Quantity MAV for Multiunit and  
 33       Variety Packages” and the appropriate MAVs in Appendix A “Tables”). Calculate the Total  
 34       Quantity MAV to be applied to the total quantity of contents declaration as follows:

35       *Total Quantity MAV = Number of Individual Inner Packages × MAV for Individual Inner Package*  
 36       *Quantity*

37       Note: A Total Quantity MAV is not required when the MAV to be applied is based on a percent  
 38       of a labeled quantity of a multiunit or variety package.

39       5. The Total Quantity MAV is compared to each minus Total Quantity Package Error to determine  
 40       if any errors are unreasonable (See Section 2.3.7.1. “MAV Requirement”).

- If the number of unreasonable errors exceeds the number allowed for the sample size the lot fails. (See Section 2.3.1. “Define the Inspection Lot” and Tables 2-1 or 2-2, Column 4).

#### 5.4. Exceptions for Multiunit Packages

##### 5.4.1. Multiunit Packages with Only a Total Quantity Declaration

NIST Handbook 130, Uniform Packaging and Labeling Regulation (UPLR), Section 10.4. “Multiunit Packages” states that unlabeled individual packages not intended for individual retail sale are only required to declare a total quantity declaration (see Figure 2. Multiunit Package [three packages] with only a Total Quantity Declaration). While not required, UPLR, Section 10.4. “Multiunit Packages” does allow for multiunit packages to include an optional statement for the count of the individual inner packages despite their not being fully labeled or intended for individual retail sale.

<b><u>Floor Cleaner</u></b>	<b><u>Floor Cleaner</u></b>	<b><u>Floor Cleaner</u></b>
	<b><u>NET WEIGHT</u></b> <b><u>15 kg (33 lb)</u></b>	

Figure 2. Multiunit Package (three packages) with only a Total Quantity Declaration

##### 5.4.1.1. MAV Application

When multiunit package label does not include a quantity statement for each individual inner package (e.g., only a total quantity appears) a Total Quantity MAV cannot be applied because the quantities in the individual inner packages are unknown. In this case, the MAV value for the total quantity declaration as listed in the MAV tables (See Appendix A. Tables) is compared to the Total Quantity Package Error to determine if any package errors are unreasonable (see Section 2.3.7.1. “MAV Requirement”).

##### 5.4.2. Variety Packages: Non-Uniform Quantity Declarations

UPLR, Section 10.6. “Variety Packages” states that a variety package is required to have total quantity declaration. The commodities may be generically similar; however, they can differ in weight, measure, volume, or style variation (e.g., color, flavor, scent, etc.). When the labeled weight, measure, or count varies, the value of the applicable MAV can also vary.

When variety packages are tested, the procedure used to calculate a Total Quantity MAV requires the summing of the MAV values over the number of inner packages of all types. An example is shown in Figure 3. Variety Package – Four Similar but Different Products with Varying Net Weights) to illustrate a total quantity declaration, count, and the weight of the individual inner packages.)

<b><u>30 Candy Bar – Variety Pack</u></b> <b><u>Total Net Weight 1.33 kg (2.9 lb)</u></b>	
<b><u>10 – 55 g (1.9 oz)</u></b> <b><u>Peanut Butter Cups</u></b>	<b><u>6 – 30 g (1.1 oz)</u></b> <b><u>Dark Chocolate Bars</u></b>
<b><u>6 – 46 g (1.6 oz)</u></b> <b><u>Milk Chocolate Bars with Almonds</u></b>	<b><u>8 – 41 g (1.5 oz)</u></b> <b><u>Milk Chocolate Bars</u></b>

**Figure 3. Variety Package – Four Similar but Different Products with Varying Net Weights**

### **5.5. Test Procedure for Variety Packages Containing Individual Packages with Varying Net Weights**

**Before determining the MAV and proceeding with tests of the quantity of contents in any variety package, calculate the sum of the labeled quantity statements of all individual inner packages and verify that the labeled Total Quantity Statement reflects the accurate sum. If an error exists between the sum of the labeled quantity statements of all individual inner packages and the Total Quantity Statement, the package is not in compliance and shall be deemed in violation of labeling requirements of NIST Handbook 130 Uniform Packaging and Labeling Regulation, requiring an accurate summing and statement of total quantity. Do not test for net quantity determination.**

- 1. When a variety package with individual inner packages with varying net weights is tested, the average tare weight (e.g., packaging from the individual inner packages and the outer package combined) is determined and a nominal gross weight is used to determine the error in the total quantity declaration.**

$$\text{Total Quantity Package Error} = \text{Sum of Individual Inner Package Errors}$$

**Note: Example is based on Weight (see Figure 3. Variety Package – Four Similar but Different Products with Varying Net Weights)**

$$\text{Nominal gross weight} = \text{average tare weight} + \text{labeled weight}$$

$$\text{Package error} = \text{gross weight} - \text{nominal gross weight}$$

**MAVs used in calculating the Total Quantity Package MAV are based on the respective labeled quantities of each product type and are calculated for each product type within the variety package. The calculated MAVs for each of the product types are summed to obtain the Total Quantity MAV (See example shown in Table 1. Steps in Calculating a MAV for a Variety Package).**

### **5.6. MAV Application**

**A Total Quantity MAV must be applied because the labeled quantities and MAVs of the individual inner packages vary. For example, based on the quantity of the total net weight (as shown in Figure 3. Variety Package- Four Similar but Different Products with Varying Net Weights) the MAV for 1.33 kg (2.9 lb) is 42.6 g (0.094 lb) but the “Total Quantity MAV” to be applied is 122.4 g (4.261 oz) (0.27 lb)(See example shown in Table 1. Steps in Calculating a MAV for a Variety Package).**

<b><u>Table 1. Steps in Calculating a MAV for a Variety Package</u></b> <b><u>(Based on Figure 3. Variety Package – Four Similar but Different Products with Varying Net Weights)</u></b>				
<b><u>Product</u></b>	<b><u>Number of Inner Packages</u></b>	<b><u>Labeled Net Weight (each individual inner package)</u></b>	<b><u>MAV for each Individual Inner Package Based on the Labeled Net Quantity (see MAV Table 2-5)</u></b>	<b><u>Total MAV</u></b>
<b><u>Peanut Butter Cups</u></b>	<b><u>10</u></b>	<b><u>55 g (1.94 oz)</u></b>	<b><u>5.4 g (0.1875 oz)</u></b>	<b><u>10 × 5.4 g = 54 g</u></b> <b><u>(10 × 0.1875 oz = 1.875 oz)</u></b>

<u>Dark Chocolate Bars</u>	<u>6</u>	<u>30 g (1.06 oz)</u>	<u>10 % of labeled quantity</u>	<u><math>6 \times (0.1 \times 30 \text{ g}) = 18 \text{ g}</math></u> <u><math>6 \times (0.1 \times 1.06 \text{ oz}) = 0.636 \text{ oz}</math></u>
<u>Milk Chocolate Bars</u>	<u>8</u>	<u>41 g (1.45 oz)</u>	<u>3.6 g (0.125 oz)</u>	<u><math>8 \times 3.6 \text{ g} = 28.8 \text{ g}</math></u> <u><math>(8 \times 0.12 \text{ oz} = 1 \text{ oz})</math></u>
<u>Milk Chocolate Bars with Almonds</u>	<u>6</u>	<u>46 g (1.62 oz)</u>	<u>3.6 g (0.125 oz)</u>	<u><math>6 \times 3.6 \text{ g} = 21.6 \text{ g}</math></u> <u><math>(6 \times 0.125 \text{ oz} = 0.75 \text{ oz})</math></u>
			<u>Total Quantity MAV</u>	<u>122.4 g</u> <u>(4.261 oz) (0.27 lb)</u>

(Added 20XX)

## B1: NET-19.4 V Appendix F. Glossary

### Purpose:

This will add definitions for multiunit, variety and total quantity MAV into Handbook 133, Appendix F.

### Item Under Consideration:

Amend Handbook 133, Appendix F as follows:

**Multiunit Package. – A package containing two or more individual packages of the identical commodity, in the same quantity, intended to be sold as a multiunit package**

**Variety Package. – A package intended for retail sale, containing two or more individual packages or units of similar, but not identical, commodities. Commodities that are generically alike, but that differ in weight, measure, volume, or style variation (e.g. color, flavor, scent, etc.) are considered similar, but not identical.**

**Total Quantity MAV. – A calculated value used to determine if any minus Total Quantity Package Error found in a multiunit or variety packages is unreasonable. A Total Quantity MAV is based on the declared quantity and count of the individual inner packages. It is determined by obtaining the applicable MAV for each individual inner package quantity from the appropriate Mav table (refer to Appendix A. “Tables” and then calculating the “Total Quantity MAV” as follows:**

➤ **Multiunit Package:  $\text{Total Quantity MAV} = \text{Number of Individual Inner Packages} \times \text{MAV for Individual Inner Package Quantity}$**

➤ **Variety Package:  $\text{Total Quantity MAV} = \text{The sum of the applicable MAVs for all Individual Inner Packages.}$**

**Note: A Total Quantity MAV is not used when the MAV applied is based on a percentage of the labeled quantity on a multiunit or variety package**

**Note: Total Quantity Package Error = Sum of Individual Inner Package Errors.**

### Arguments For:

#### Regulatory:

- Several regulators supported moving this block forward as a voting item.

#### Industry:

- None

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee assigned Voting status to these items at the 2022 Interim meeting because it heard support for moving them forward, heard no opposition and believes they are fully developed.

**Background/Discussion:**

This item was originally submitted and developed by:

Ms. Lisa Warfield  
NIST, Office of Weights and Measures  
301-975-3308, [lisa.warfield@nist.gov](mailto:lisa.warfield@nist.gov)

When current test procedures in Handbook 133 are used and an MAV is applied to the total quantity declaration on some multiunit and variety packages the MAV allowed for the individual inner packages can indirectly be reduced as much as 50 % or more, depending on the number of individual items in the package. This proposal modifies Handbook 133 to add language regarding the total quantity declaration on multiunit or variety packages, when the MAV may need to be recalculated based on the Total Quantity MAV.

When a total quantity declaration on a multiunit or variety package is verified, it will require the inspector, except when the MAV is based on a percentage of the labeled quantity, to calculate and use a “Total Quantity MAV.” This calculation will determine if minus package errors are unreasonable (an unreasonable error is a minus package error that exceeds an MAV specified in the proper table of MAVs in Handbook 133, Appendix A. “Tables”) A “Total Quantity MAV” is calculated by multiplying the number of individual inner packages by the MAV value, which is based on the declared quantity of the individual inner packages. It is found by looking up the MAV for the individual inner package quantity (See HB 133, Appendix A. “Tables”) and then calculating the “Total Quantity MAV.” This test procedure will be used to assist inspectors with their inspection.

NCWM 2020 Interim Meeting: Comments were heard recognizing the merit of this item. Several regulators and an industry member made comments that some areas within the test procedure are too confusing. Mr. Tim Chesser (AR)

1 remarked that he does not understand Item Net 3. Section 5.4.1.1. MAV Application. Mr. Kurt Floren (Los Angeles  
2 Co., CA) submitted editorial changes. The Committee accepted these revisions for the entire Item Block 1. In  
3 addition, the Committee would like NIST/OWM to address Mr. Floren's comments for Item NET-3. Chapter 5.  
4 Specialized Test Procedures will be reviewed by the NIST/OWM. Due to the Federal Government furlough, NIST  
5 OWM was not in attendance, so concerns could not be addressed at the meeting. The Committee would like the  
6 submitter to review formatting, clarifying label quantity, and modifying language for additional clarity. The  
7 Committee would like to see the above issues reviewed by the submitter and encourages further development.

8 NCWM 2019 Annual Meeting: Ms. Warfield stressed to membership that this item is fully developed and a technical  
9 document and supporting data was submitted that supports these proposals. The document also provides for examples  
10 that inspectors found pertaining to multiunit and variety packages during inspections. NIST addressed the WWMA  
11 comments in the latest Item Under Consideration. There were no additional comments heard at the Annual Meeting.

12 NCWM 2020 Interim Meeting: Ms. Warfield provided an update on the last language submitted for this item on  
13 December 27, 2019. Ms. Warfield remarked the work done to develop the proposal and clarify the procedure  
14 language. Ms. Warfield reminded the audience NET-19.3 creates a Chapter 5, "Specialized Test Procedures" must be  
15 approved for the rest of the items in the block to proceed. This block of items was submitted by OWM after some  
16 states requested assistance inspecting these types of packages. Mr. Chris Guay (Procter and Gamble Co.) gave merit  
17 to the item but requested review of the definition of "multiunit package" and referred to the definition in CFR 21. Mr.  
18 Kurt Floren (Los Angeles Co., CA) expressed his support for the item but pointed out some punctuation and editorial  
19 changes were needed. Mr. Floren said wording in Section 5.4.3 can be improved for clarity. Ms. Ann Boeckman  
20 (Kraft Heinz Foods Co.) also expressed concerns about the definition of multiunit package for retail sale. Opinions  
21 from Ms. Angela Godwin (Ventura Co., CA) and Ms. Katherine DeContreras (CA) were heard during the open  
22 hearing; both agreed the procedure is confusing and needs additional work but, both concur the item has merit.

23 There were concerns that membership may not have reviewed the modifications submitted by NIST OWM in  
24 December 2019. There was some confusion as to whether members comments were still valid since they did not  
25 review the latest language. All comments received gave merit to the blocked Item but, some still expressed concern  
26 about the definitions of multiunit packages for retail sale and others found the language of the procedure to be  
27 confusing. Based on the comments, the L&R Committee would like the submitter to review possible issues with the  
28 definition of Multiunit packages and, to work on the procedure language to improve clarity. The L&R Committee  
29 recommends the Item Block 1 be Informational to allow the submitter to do an additional review.

30 NCWM 2021 Interim Meeting: Mr. Floren expressed concerns that the language in certain areas of B1: NET-19.1  
31 and B1: NET-19.3 could use some clarity. Mr. Floren also recommends that the Committee consider adding in  
32 additional information directing the user to the federal regulations for USDA/FSIS and FDA for packaged foods for  
33 human consumption.

34 Ms. Warfield remarked there is a supporting document that provides the varying definitions for multiunit from FTC,  
35 FDA, and USDA regulations. The Committee does have a copy to assist them in deciding to how to proceed with this  
36 block. Ms. Warfield expressed concern that at NCWM and regional meetings there is not specific feedback as to what  
37 is required to get this item voting status. NIST OWM has provided all supporting data and technical papers to explain  
38 how this information was developed. Ms. Warfield suggested that if the Committee is unable to elevate this to voting  
39 status, they should withdraw it and NIST would incorporate this procedure in the HB133 training courses.

40 Mr. Floren and Ms. Warfield agreed to work together in preparing Mr. Floren's recommendations for acceptance into  
41 the report.

42 The following recommendations that reflected with either a double underscore or double strikethrough:

B1: NET-19.1. changes:

#### 1.2.4. Maximum Allowable Variation

The limit of the “reasonable minus variation” for an underfilled package is called a “Maximum Allowable Variation” (MAV). An MAV is a deviation from the labeled weight, measure, or count of an individual package beyond which the deficiency is considered an unreasonable minus error. Each sampling plan limits the number of negative package errors permitted to be greater than the MAV.

Packages may be offered for sale individually or offered for sale in multiunit packages or variety packages, which contain two or more individual inner packages.

When individual packages are tested whether individual, multiunit, or variety packages, the MAV is applied to each package in the sample which has a minus package error.

Add a paragraph to make it clear to the inspector how to handle a package that is not in compliance and due to a Packaging and Labeling Regulation violation

Before determining the MAV and proceeding with tests of the quantity of contents in any multiunit or variety package, calculate the sum of the labeled quantity statements of all individual inner packages and verify that the labeled Total Quantity Statement reflects the accurate sum. If an error exists between the sum of the labeled quantity statements of individual inner packages and the Total Quantity Statement, the package is not in compliance and shall be deemed in violation of labeling requirements of NIST Handbook 130, Uniform Packaging and Labeling Regulation, requiring an accurate summing and statement of total quantity. Do not test for net quantity determination.

##### 1.2.4.1. Total Quantity MAV for Multiunit and Variety Packages (See Chapter 5. “Specialized Test Procedures”)

a. Multiunit Package. – In verifying a total quantity declaration that appears on a multiunit package, compare a Total Quantity MAV to each minus Total Quantity Package Error to determine if the error is unreasonable. Calculate the Total Quantity MAV using the following formula:

b. Variety Package. – In verifying a total quantity declaration that appears on a variety package, compare a Total Quantity MAV to each minus Total Quantity Package Error to determine if the error is unreasonable. Calculate the Total Quantity MAV using the following formula:

*Total Quantity MAV = The sum of the applicable MAVs for all Individual Inner Packages*

Variety packages include commodities that may be generically similar, but differ in weight, measure, volume, or appearance design variation (e.g., color, flavor, scent, etc.). For these packages, a Total Quantity MAV is calculated for each product type within the variety package and the results are added to obtain a Total Quantity MAV for comparison to each minus Total Quantity Package Error.

Changes to B1: NET-19.3 are reflected below:

#### 5.1. Scope

The following procedures are used in either verifying the net quantity of contents of retail multiunit packages with individual inner packages of the same commodity that have identically-labeled quantities or in verifying retail variety packages with individual inner packages that differ in labeled weight, measure or volume.

1. The procedure used is determined by using the labeled net contents.

- Use Section 5.2. “Individual Package Quantity” if a total net quantity of contents is not declared on the label of a multiunit or variety package of food for human consumption or meat or meat products from a USDA official establishment (See explanation in Section 5.2. of specific exemptions to requirement for a total net quantity statement).

- Use Section 5.3. “Total Quantity” if a total net quantity of contents is declared on the package.

Note: If the packages are labeled with additional quantity statements (i.e., dry volume, area, length, width, or thickness), added steps or, when proper, additional Total Quantity MAVs may be required in testing the accuracy of such additional quantity statements.

Changes to Section 5.2. will add additional language to clarify how to inspect packaged foods for human consumption. The CFR links are hyperlinked to provide inspectors direct access to the CFR information if they are using an online handbook.

## 5.2. Individual Package Quantity

This procedure is used only for verifying the total content statement of open or transparent-wrapped multiunit packages of foods for human consumption or meat or meat products under the authority of FDA or USDA, respectively. Under USDA FSIS regulations (9 CFR 317.2 [h][12]) and FDA regulations (21 CFR 101.7 Chapter I [s]), such open multiunit packages that do not obscure the number of individual inner packages or the labeling of each individual inner package (compliant with all other location, type size, and applicable requirements) are not required to bear a total net quantity statement on the outside of the package (see Figure 1. Open or Transparent Multiunit Package with Fully Visible Individual Quantity Declarations).

The capture for Figure one should be clarified to read, Figure 1. Open or Transparent Multiunit Package (containing two rows of packages) with Fully Visible Individual Quantity Declarations

### 5.2.1. Test Procedure for Multiunit Packages Exempt from Total Quantity Statement (See Section 5.2)

Step 4 in this section should be clarified to read: If minus package errors are found in the sample, the value of the MAV to be applied is determined by matching the labeled net quantity for the individual inner packages to the applicable value in the appropriate MAV table (see Appendix A “Tables”).

Add a statement to Section 5.3. Total Quantity to make it clear to the inspector how to handle a package that is not in compliance and due to a Packaging and Labeling Regulation violation

Before determining the MAV and proceeding with tests of the quantity of contents in any multiunit package, calculate the sum of the labeled quantity statements of all individual inner packages and verify that the labeled Total Quantity Statement reflects the accurate sum. If an error exists between the sum of the labeled quantity statements of individual inner packages and the Total Quantity Statement, the package is not in compliance and shall be deemed in violation of labeling requirements of NIST Handbook 130 Uniform Packaging and Labeling Regulation, requiring an accurate summing and statement of total quantity. Do not test for net quantity determination.

## 5.4. Exceptions for Multiunit Packages

### 5.4.1. Multiunit Packages with Only a Total Quantity Declaration

NIST Handbook 130, Uniform Packaging and Labeling Regulation (UPLR), Section 10.4. “Multiunit Packages” states that when containing unlabeled individual packages and not intended for individual retail sale, the multiunit package only requires a total quantity declaration (see Figure 2. Multiunit Package [three packages] with only a Total Quantity Declaration). While not required, UPLR, Section 10.4. “Multiunit Packages” does allow for multiunit packages to include an optional statement for the count of



the individual inner packages despite their not being fully labeled or intended for individual retail sale even when the UPLR, Section 10.4, “Multiunit Packages” regulations do not require such a statement.

### 5.5. Test Procedure for Variety Packages Containing Individual Packages with Varying Net Weights

When a variety package with individual inner packages of varying net weights is tested, the average tare weight (e.g., packaging from the individual inner packages and the outer package combined) is determined and a nominal gross weight is used to determine the error in the total quantity declaration.

Changes for B1: NET-19. 4 appear below

**Multiunit Package. - A package containing two or more individual packages of the identical commodity, in the same quantity, intended to be sold as a multiunit package**

**Variety Package. – A package intended for retail sale, containing two or more individual packages or units of similar, but not identical, commodities. Commodities that are generically alike, but that differ in weight, measure, volume, appearance or style variation (e.g., color, flavor, scent, etc.) or quality, are considered similar, but not identical.**

**Total Quantity MAV. – A calculated value used to determine if any minus Total Quantity Package Error found in a multiunit or variety package is unreasonable. A Total Quantity MAV is based on the declared quantity and count of the individual inner packages. It is determined by obtaining the applicable MAV for each individual inner package quantity from the appropriate MAV table (refer to Appendix A. “Tables”) and, then, calculating the “Total Quantity MAV” as follows:**

➤ **Multiunit Package:**

**$Total\ Quantity\ MAV = Number\ of\ Individual\ Inner\ Packages \times MAV\ for\ Individual\ Inner\ Package\ Quantity$**

➤ **Variety Package:**

**$Total\ Quantity\ MAV = The\ sum\ of\ the\ applicable\ MAVs\ for\ all\ Individual\ Inner\ Packages$**

Several regulators spoke in support of having this item further developed based upon Mr. Floren’s comments. They persuaded the Committee from removing any of the Items from the Block that were deemed fully developed and ready for Voting status. This will allow the item to move forward together since the language impacts the various sections.

Mr. Guay (retired) does like the intent of the proposal but struggles with removing language from the definition of a multiunit package because the definition is well understood by industry. Mr. Ed Coleman (TN) remarked that this test procedure appears to be a very involved process and questioned if this could only be done in a point of pack. Mr. Coleman remarked their state would normally do an audit test at retail locations and he is unsure how practical this procedure is.

During the Committee work session, there was limited time for the Committee to revise the language. The Committee approved the recommendations addressed by Mr. Floren and NIST and will be incorporated into the Item under Consideration. The Committee is also recommending the language remain in Informational status to obtain feedback from the Regional Associations.

NCWM 2021 Annual Meeting: Mr. Floren provided a few minor editorial changes within the entire block; with those changes he does support. Mr. Floren did request that the Committee review B1: NET-19.3 Section 5.5.1., the equation is not accurate. At the Committee work session Ms. Warfield provided a correction to the language in Section 5.5.1. The current Item under Consideration was modified to include editorial changes and clarity to the equation under Section 5.5.1.

**Regional Associations' Comments:**

WWMA 2021 Annual Meeting: Ms. Lisa Warfield, (NIST OWM) (submitter) – Provided testimony that language needs to be clarified to make it useful and simple for inspectors. NIST OWM intends to use the information in this item for training programs to continue improving the procedure to provide clarity for all levels of inspectors. Ms. Warfield is hoping to provide resource documents and guidance that would allow for enforcement procedures. Mr. Kurt Floren (County of Los Angeles, California) – Provided testimony that indicated he believes the language is factually correct and would further clarify the procedures for conducting such inspections. Mr. Floren believed he had some ideas on condensing this item and feels it would serve as great training material.

The Committee recommends that the NCWM National L&R Committee consider withdrawing this Item to allow NIST OWM to further refine this procedure, and vet the language for future inspector use.

SWMA 2021 Annual Meeting: There were no comments received from the floor during open hearings. Ms. Lisa Warfield (Submitter from NIST OWM) requested from their written analysis that the National L&R withdraw this item to allow NIST OWM time to simplify the steps in the test procedure to provide better clarity to the inspectors. NIST does not think believe that states have had ample time to test apply the test procedure. NIST will work on this as they develop training courses and will keep this as a resource document, until it gets resubmitted.

The Committee recommends Withdrawing this item.

CWMA 2021 Interim Meeting: Lisa Warfield, NIST Technical Advisor commented that when this issue was originally submitted it was only a test procedure, but in developing that item realized that additional sections of handbook need to be addressed. She is suggesting that the item be withdrawn, and instead they would use a revised version as a resource document. The Committee recommends this item be withdrawn.

NEWMA 2021 Interim Meeting: Mr. David Sefcik, NIST Technical Advisor, recommended the entire block be withdrawn. A concern at several regional association meetings was that the steps within the test procedure need to be simplified. Mr. Sefcik indicated that the procedure is sound and factual, but that this would give OWM time to use the procedure in training courses which will provide valuable feedback and additional testing data to help simplify and provide clarification. It will also be made available as a resource document. The intent is to submit the item in the future. He suggested this block be withdrawn. Walt Remmert, Pennsylvania supports withdraw of the item at this time to be resubmitted later for further vetting and simplification. John McGuire supports the recommendation of the submitter as Withdraw status. Jim Willis, New York, also supports Withdraw status. Lisa Warfield, NIST Technical Advisor, commented that this is an Informational item that the L&R Committee owns, and Chairman McGuire needs to agree to downgrading the status to Withdraw. Jim Cassidy, Massachusetts, agrees the item should be withdrawn. The Committee concurs that this block be withdrawn.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

**ITEM BLOCK 2 (B2) V COMMERCIAL AND LAW ENFORCEMENT EQUIPMENT**

B1: WAM-22.1 Section 1.11. Commercial and Law Enforcement Equipment

B1: NTP-22.1 Section 2.15. Commercial and Law Enforcement Equipment

**Source:**

NIST, Office of Weights and Measures

**Purpose:**

Add clarification regarding the implications of using weighing and measuring devices for transactions that may or may not be considered commercial transactions.

**B2: WAM-22.1 V Section 1.11. Commercial and Law-Enforcement Equipment.**

**Item Under Consideration:**

Amend Handbook 130, Uniform Weights and Measures Law as follows:

**1.11. Commercial Weighing and Measuring Law-Enforcement Equipment.** – The terms “commercial weighing and measuring equipment” and “law-enforcement equipment” refer to are defined as follows:

**(a)** “Commercial Weighing and Measuring Equipment” means ~~Weights~~ and measures and weighing and measuring devices ~~commercially~~ used or employed in:

**(1)** establishing the size, quantity, extent, area, **composition (limited to meat and poultry)**, constituent values (limited to grain), or measurement of quantities, things, produce, or articles for distribution or consumption, purchased, offered, or submitted for sale, hire, or award;

**(2)** assessing a fee for the use of the equipment to determine a weight or measure;

**(3)** determining the basis of an award using count, weight, or measure; or

**(4)** computing any basic charge or payment for services rendered on the basis of weight or measure.  
(Amended 2008 and 20XX)

**(b)** ~~To~~ “Commercial Weighing and Measuring Equipment” includes any accessory attached to or used in connection with a commercial weighing or measuring device when such accessory is so designed that its operation affects the accuracy of the device.

**(c)** “Law-Enforcement Equipment” means ~~To weighing and measuring equipment in official use for the enforcement of law or for the collection of statistical information by government agencies.~~

(These requirements should be used as a guide by the weights and measures official when, upon request, courtesy examinations of noncommercial equipment are made.)

(Added 1995) (Amended 20XX)

**B2: NTP-22.1 V Section 2.15. Commercial and Law Enforcement Equipment.**

**Item Under Consideration:**

Amend Handbook 130, Uniform Regulation for National Type Evaluation as follows:

**2.15. Commercial and Law-Enforcement Equipment.** – The terms “commercial weighing and measuring equipment” and law-enforcement equipment refer to:

**(1)** Commercial weighing and measuring equipment; that is:

**(a)** To **weights and measures and** weighing and measuring ~~devices~~ ~~equipment~~ commercially used or employed in:

**1.** establishing the size, quantity, extent, area, **composition (limited to meat and poultry)**, **constituent values (limited to grain)**, or measurement of quantities, things, produce, or articles for distribution or consumption, purchased, offered, or submitted for sale, hire, or award;

**2.** assessing a fee for the use of the equipment to determine a weight or measure;

**3.** determining the basis of an award using count, weight, or measure; or

1                   **4.** computing any basic charge or payment for services rendered based on weight or measure.  
2                   (Amended 2008 **and 20XX**)

3                   **(b)** To any accessory attached to or used in connection with a commercial weighing or measuring device  
4                   when such accessory is so designed that its operation affects the accuracy of the device.

5                   **(2) Law enforcement equipment; that is:**

6                   **(a)** To weighing and measuring equipment in official use for the enforcement of law or ~~for~~ the  
7                   collection of statistical information by government agencies. [see Section 2.15. Note]

8                   **(Amended 20XX)**

9                   **(These requirements should be used as a guide by the weights and measures official when, upon request,**  
10                   **courtesy examinations of noncommercial equipment are made.)**

11                   **(Added 20XX)**

12                   *Section 2.15. NOTE: ~~The~~ This section is identical to G-A.1. Commercial and Law Enforcement Equipment,*  
13                   *Section 1.10. General Code, NIST Handbook 44 for definition of “commercial” and “law enforcement*  
14                   *equipment.”*

15                   **Previous Action:**

16                   N/A

17                   **Arguments in Favor:**

18                   **Regulatory:**

- 19
  - Several regulators supported this item go forward as a voting item.

20                   **Industry:**

- 21
  - None

22                   **Advisory:**

- 23
  - None

24                   **Arguments Against:**

25                   **Regulatory:**

- 26
  - None

27                   **Industry:**

- 28
  - None

29                   **Advisory:**

- 30
  - None

31                   **Neutral Comments:**

32                   **Regulatory:**

- 33
  - Law enforcement is not defined and may be needed.
  - Value in harmonizing language in NIST H-130 and NIST H-44 (agreement was reached that the committees would work to harmonize to the degree possible.)

35

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee assigned Voting status to the items in this Block at the 2022 Interim Meeting.

The Committee assigned Voting status to the items in this Block because it heard support for them, believes it is fully developed and were able to work with the S&T committee to harmonize the items to the extent possible due to inherent differences in the scope of NIST Handbooks 44 and 130.

**Original Justification:**

OWM has noted several inquiries submitted to our office for explanation on the many and various issues involved with the use of weighing or measuring devices as commercial devices when there is charge for doing so.

The submitter added that there seems to be a difference in opinions regarding this practice constitutes a commercial transaction.

The submitter requested that this be a Voting Item in 2022.

**Regional Associations' Comments:**

WWMA 2021 Annual Meeting: Ms. Lisa Warfield, (NIST OWM) (submitter) – Provided testimony as to the purpose of the proposal, which is to harmonize NIST Handbook 130 and NIST Handbook 44 regulations pertaining to determining commercial and noncommercial use of devices. The Committee received comments from Mr. Kurt Floren (County of Los Angeles, California) indicating that the block is factually correct and that it would provide guidance for inspectors. He suggested continuous work is needed. He also recommended that the L&R and S&T Committee work together to mirror language.

The Committee recommends this as a Developing item. The Committee sees merit in this item but wants to ensure language is harmonized with any changes made to GEN 22.1 NIST Handbook 44 General Code G.A.1.

SWMA 2021 Annual Meeting: Ms. Lisa Warfield (NIST OWM) (submitter) – Provided written analysis as to the purpose of the proposal and requested this item be given a Developing status. No comments were received from the floor.

The Committee recommends this as a Developing item. The Committee sees merit in this item and wants to ensure language is harmonized across all affected sections of the Handbooks.

CWMA 2021 Interim Meeting: Loren Minnich, Kansas commented he has submitted a suggested language change in Part A.2 (see below). Lisa Warfield, NIST Technical Advisor commented that there was an accidental duplication in part of the item as well as an issue in Section 2.3 that needs to be addressed. She recognizes there is additional work to be done to this item. Charlie Stutesman, Kansas commented that he is unclear if this item is necessary and believes the language in the Handbook is appropriate as it currently reads. Ms. Warfield clarified that this item is intended to merely clarify the language across handbooks. Ivan Hankins, Iowa, commented that he does not believe this item is necessary. Doug Musick, Kansas commented that there is ambiguity with the term “other”. He believes the language is unclear. Mr. Minnich further commented that he is undecided as to whether this item will provide further clarification or not but is not opposed to the attempt. Konrad Crockford, North Dakota commented he understands the effort to clarify this section of the handbook but is not sure about the flow of the proposed content. He also made the point that it is the inspector who needs to understand how to implement the language and attempting to clarify an item does not always accomplish that. The Committee recommends this item be given Developing status.

a. **To other commercial weighing and measuring equipment:**

i. **when there is a fee assessed for the use of the equipment to determine a weight or measure;**

ii. **used to determine the bases of an award using count, weight, or measure when using weight, measure, or count as the basis to determine an award; or**

iii. **used in computing any basic charge or payment for services rendered based on weight or measure.**

NEWMA 2021 Interim Meeting: David Sefcik, NIST Technical Advisor commented that NIST has provided an analysis on all items on the agenda and asks the members to review their analysis. He further commented that this item clarifies and harmonizes these items between Handbook 130 and Handbook 44. Tina Butcher, NIST OWM, commented that there are still some inconsistencies in language proposed for this item and the related item in the S&T Committee. She believes the items need to be reconciled by the NCWM Interim Meeting in January 2022. Jim Willis, New York, asked if this item would include scales that are used to judge a fishing derby, wrestling scales, etc.? Ms. Butcher commented that it would include these two examples. She commented that “award” has been in the handbooks for a long time. Chairman Sakin commented that the scope and use of the Handbook 44 is referenced in Section GA.1. John McGuire, New Jersey, asked for clarification as to this block being incorporated for harmonization of WAM 22.1, NTP-22.1, S&T GEN 22.1 Handbook 44 G.A-1 to provide mirror language and incorporate NIST Handbook 130 Uniform Regulation for the Voluntary Registration of Serviceperson and Service Agencies for Commercial Weighing and Measuring Devices. Ms. Butcher stated that was correct and NIST OWM does expect to have fully developed language that will address all references to NIST Handbook 130 and Handbook 44 – General Code. There were no objections to assigning a Developing status for now with the intent to upgrade to Voting status. John McGuire and Walt Remmert, Pennsylvania both supports Developing status. The Committee recommends this item be given Developing status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

**ITEM BLOCK 3 (B3) CANNABIS**

**B3: PAL-22.1 V Section 2. Definitions 2.XX Cannabis and Cannabis-Containing Products.**

**Source:**

NCWM Cannabis Task Group

**Purpose:**

Establish a clear definition of *Cannabis* and *Cannabis*-containing products for use in Handbook 130 Uniform Packaging and Labeling Requirements.

**Item Under Consideration:**

Amend Handbook 130, Uniform Packaging and Labeling Regulation, as follows:

**2.XX. Cannabis and Cannabis-Containing Products – Cannabis is a genus of flowering plants in the family Cannabaceae, of which Cannabis sativa is a species. This definition includes products that contain 0.3 percent or less of Total Delta-9 THC (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as Cannabis, Marijuana or Marihuana).**

**(Added 20XX)**

**Original Justification:**

Since *Cannabis* and *Cannabis*-containing products were first legalized by some states, the industry has undergone an unprecedented expansion. Even though these products haven’t received Federal approval at this time, more and more

states have supported *Cannabis* and *Cannabis*-containing products for medicinal or adult-use under their own laws. This has resulted in boutique markets developing across the country with restrictive state boundaries for lack of clarity and uniformity in commercialization of these products.

*Cannabis* and *Cannabis*-containing products are unique in many aspects; they have a niche as medicine, have resulted in the development of adult use markets, and have an incredible array of different manufacturing and industrial applications. Some of these products contain controlled substances which presents a special concern for the safety and welfare of consumers if misused or mishandled. Further, they are subject to strict regulations by multiple government agencies. *Cannabis* and *Cannabis*-containing products and applications range from non-food to food products for human and animal consumption through inhalation, ingestion, and/or topical or dermal application. They can be used as ingredients in other commodities, changing in most cases the product identity to *Cannabis* and *Cannabis*-containing products. Some *Cannabis* and *Cannabis*-containing products are very susceptible to environmental conditions easily losing or gaining moisture with consequences impacting net quantity, degradation of active cannabinoids, and/or microbial proliferation depending on the situation. These are just some of the reasons there are many concerns and uncertainty surrounding the method of sale and commercialization of *Cannabis* and *Cannabis*-containing products.

Many states have already, or are in the planning stages of, codified packaging and labeling regulations that may differ from those proposed here. They may change yet again once the federal government establishes regulations for *Cannabis* and *Cannabis*-containing products. However, unifying the packaging and labeling requirements nationally through this proposal will eliminate the boutique markets currently developing. Much of industry has expressed the desire for uniformity and this will align with their needs in this regard.

The submitter requested that this be a Voting Item in 2022.

Note: The Committee heard testimony on each individual item in Block 3 (B3 (Cannabis)). The comments heard are reported for each item, but the Committee will keep items PAL-22.1 PAL 22.2 and MOS-22.2 together as a block. Item NET-22.1 is removed from the block and will be considered separately.

B3: PAL-22.1

#### **Arguments in Favor:**

##### **Regulatory:**

- There was unanimous support for this item as a voting item. It was stated that Weights and Measures officials need clear authority to regulate.
- It was stated that this item is needed because people are “getting ripped off with short-weight sales.”

##### **Industry:**

- Arizona Dispensary Association supported moving this item forward as a voting item and stated that it is a 1.4 to 1.5-billion-dollar industry in Arizona.
- Charles Rutherford, CPR Squared, Chair of the Cannabis Task Group and representing the Cannabis Industry supported moving this item forward as a voting item. He further stated that bad actors can manipulate the drug and sell underweight flowers. He indicated that education and training was needed, and that regulation was critical to ensure that consumers were not being shorted.
- The American Trade Association for Cannabis and Hemp (ATACH) stated it was an important next step for regulating the industry.

##### **Advisory:**

- None

#### **Arguments Against:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- Dr. Lipa, NIST, Office of Weights and Measures (OWM) responded to general comments and answered questions that were posed to OWM as to what they can do with language within the NIST Handbooks. She stated that OWM is in discussion with NIST Office of Chief Counsel regarding the cannabis agenda items at NCWM.

There are a few things for NIST related work: development to standards materials, high and low THC, and standards. There needs to be a distinction of the THC level that is regulated by the Farm Bill and the Controlled Substance Act (CSA).

According to the CSA, high THC marijuana is an illegal drug and NIST cannot support guidance, training, and standards Recognizing this issue, NIST will be able to publish Handbook 130 with this item, but they will have to provide a disclaimer citing the CSA. OWM is in communication with NIST legal counsel on this matter and will continue to work and advice with NIST legal.

**Item Development:**

The Committee assigned Voting status for this item at the 2022 NCWM Interim meeting.

The Committee heard unanimous support for this item from Regulators and Industry who shared the need for it.

**B3: PAL-22.2 V Section 10. Requirements, 10.XX Cannabis and Cannabis-Containing Products.**

**Source:**

NCWM Cannabis Task Group

**Purpose:**

Establish uniform packaging and labeling requirements for *Cannabis* and *Cannabis*-containing products.

**Item Under Consideration:**

Amend Handbook 130, Uniform Packaging and Labeling Regulation, as follows:

**10.XX. Cannabis and Cannabis-Containing Products – Any Cannabis or Cannabis-containing products intended for human or animal consumption or application, shall bear on the outside of the package the following:**



1 **(a) On the principal display panel**

2 **(i) The statement “Contains *Cannabis*.”;**

3 **(ii) The statement “Contains less than 0.3% Total Delta-9 THC” or “Contains 0.3% Total**  
4 **Delta-9 THC or more.”; and**

5 **(b) On back or side panel of the package a declaration of the quantity of milligrams of each marketed**  
6 **cannabinoid per serving or application.**

7 **Arguments in Favor:**

8 **Regulatory:**

- 9 • Several regulators spoke in moving this item forward as a voting item and the importance of getting  
10 the item out to the states.

11 **Industry:**

- 12 • None

13 **Advisory:**

- 14 • None

15 **Arguments Against:**

16 **Regulatory:**

- 17 • None

18 **Industry:**

- 19 • None

20 **Advisory:**

- 21 • None

22 **Neutral Comments:**

23 **Regulatory:**

- 24 • None

25 **Industry:**

- 26 • None

27 **Advisory:**

- 28 • None

29  
30 **Item Development:**

31  
32 The Committee assigned Voting status for this item at the 2022 NCWM Interim meeting.

33  
34 The Committee heard support for this item from several Regulators and did not hear opposition to it. The Committee  
35 made a couple changes to the item in section **10.XX. *Cannabis* and *Cannabis-Containing Products*** and believes it  
36 is fully developed and ready for a vote.

**Original Justification:**

Since *Cannabis* and *Cannabis*-containing products were first legalized by some states, the industry has undergone an unprecedented expansion. Even though these products haven't received Federal approval at this time, more and more states have supported *Cannabis* and *Cannabis*-containing products for medicinal or adult-use under their own laws. This has resulted in boutique markets developing across the country with restrictive state boundaries for lack of clarity and uniformity in commercialization of these products.

*Cannabis* and *Cannabis*-containing products are unique in many aspects; they have a niche as medicine, have resulted in the development of adult use markets, and have an incredible array of different manufacturing and industrial applications. Some of these products contain controlled substances which presents a special concern for the safety and welfare of consumers if misused or mishandled. Further, they are subject to strict regulations by multiple government agencies. *Cannabis* and *Cannabis*-containing products and applications range from non-food to food products for human and animal consumption through inhalation, ingestion, and/or topical or dermal application. They can be used as ingredients in other commodities, changing in most cases the product identity to *Cannabis* and *Cannabis*-containing products. Some *Cannabis* and *Cannabis*-containing products are very susceptible to environmental conditions easily losing or gaining moisture with consequences impacting net quantity, degradation of active cannabinoids, and/or microbial proliferation depending on the situation. These are just some of the reasons there are many concerns and uncertainty surrounding the method of sale and commercialization of *Cannabis* and *Cannabis*-containing products.

Since *Cannabis* is being introduced as an ingredient into many commodities, having a statement on the principal display panel will allow consumers to be informed as to its contents. The amount and type of cannabinoids are a deciding factor to consumers when purchasing *Cannabis* and *Cannabis*-containing products. This would also provide regulators with the information necessary to ensure consumers are not being defrauded as these products carry a hefty price tag. A declaration of marketed cannabinoids and their respective concentration will allow consumers to compare like products for value comparison. Both requirements will also act as a safety mechanism to alert consumers of the contents and aid them in selecting the desired product.

Many states have already, or are in the planning stages of, codified packaging and labeling regulations that may differ from those proposed here. They may change yet again once the federal government establishes regulations for *Cannabis* and *Cannabis*-containing products. However, unifying the packaging and labeling requirements nationally through this proposal will eliminate the boutique markets currently developing. Much of industry has expressed the desire for uniformity and this will align with their needs in this regard.

The submitter requested that this be a Voting Item in 2022.

**B3: MOS-22.2 V Section 1.XX. *Cannabis* and *Cannabis*-Containing Products and 2.XX. *Cannabis* and *Cannabis*-Containing Products.**

**Source:**

NCWM Cannabis Task Group

**Purpose:**

Create a new section in the Uniform Regulation for the Method of Sale of Commodities in Handbook 130 for *Cannabis* and *Cannabis*-Containing Products. Given the nature of these products, they need to be included in both, the Food and Non-Food sections of this regulation.

**Item Under Consideration:**

Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

**1.XX. *Cannabis* and *Cannabis*-Containing Products – *Cannabis* is a genus of flowering plants in the family Cannabaceae, of which *Cannabis sativa* is a species. This definition includes products that contain 0.3 percent or less of Total Delta-9 THC (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as Cannabis, Marijuana or Marihuana).**

**1.XX.X. Unit**

- (a) Volume – Products offered for sale in liquid form shall be sold by volume. (e.g. oils, concentrates, soft drinks).
- (b) Weight- Products offered for sale in non-liquid form shall be sold by weight. (e.g. candy, baked goods, flower). These products may also have a supplemental declaration of count or measure.

**1.XX.X.– Sale from Bulk**

- (a) When sold from bulk, all sales shall be based on net weight or net quantity.
- (b) When liquids are offered for sale from bulk, the reference temperature for measurement shall be 20 °C (68 °F). Products shall be delivered at a temperature within  $\pm 2$  °C (5 °F). Artificially heating liquids to temperatures higher than the specified limits is prohibited.

**1.XX.X. Water Activity-When unprocessed *Cannabis*, is kept, offered, or exposed for sale, sold, bartered, or exchanged, or ownership transfers, the water activity shall be 0.60 ( $\pm 0.05$ ) in accordance with latest version of ASTM D 8197, *Standard Specification for Maintaining Acceptable Water Activity ( $a_w$ ) Range (0.55 to 0.65) for Dry Cannabis Flower Intended for Human/Animal Use.***

**The latest version of ASTM D 8197 defines water activity as  $a_w$ , n—the partial vapor pressure of water in a substance divided by the partial vapor pressure of pure water at the same temperature which is calculated by dividing the partial vapor pressure of water in the substance (P) by the partial vapor pressure of pure water at the same temperature ( $P_o$ ), that is,  $a_w = P/(P_o)$ . This describes quantitatively the capability of the cannabis flower in a sealed container to affect the humidity of the container's headspace air.**

And

**Section 2. Non-Food Products.**

**2.XX. *Cannabis* and *Cannabis*-Containing Products – Cannabis is a genus of flowering plants in the family Cannabaceae, of which *Cannabis sativa* is a species. This definition includes products that contain 0.3 percent or less of Total Delta-9 THC (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as Cannabis, Marijuana or Marihuana).**

**2.XX.X. Unit**

- (a) Volume – Products offered for sale in liquid form shall be sold by volume. (e.g. topical oils, lotions, cremes).
- (b) Weight- Products offered for sale in non-liquid form shall be sold by weight. (e.g. balms, cigarettes, flower). These products may also have a supplemental declaration of count or measure.

**2.XX.X.– Sale from Bulk**

- (a) When sold from bulk, all sales shall be based on net weight or net quantity.
- (b) When liquids are offered for sale from bulk, the reference temperature for measurement shall be 20 °C (68 °F). Products shall be delivered at a temperature within  $\pm 2$  °C (5 °F). Artificially heating liquids to temperatures higher than the specified limits is prohibited.

**2.XX.X. Water Activity-When unprocessed Cannabis, is kept, offered, or exposed for sale, sold, bartered, or exchanged, or ownership transfers, the water activity shall be 0.6 ( $\pm$  0.05) in accordance with latest version of ASTM D 8197, Standard Specification for Maintaining Acceptable Water Activity (aw) Range (0.55 to 0.65) for Dry Cannabis Flower Intended for Human/Animal Use.**

**Arguments in Favor:**

**Regulatory:**

- Several regulators spoke in favor of moving this item forward as a voting item including MI, FL, AZ, County of Los Angeles,
- The importance of water activity to the sale of cannabis was stated by regulators and industry.

**Industry:**

- The Arizona Dispensary Association and CPR Squared supported moving it forward.

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- NIST OWM stated that cannabis remains illegal under federal law and is subject to the Controlled Substances Act. This would not prevent them from publishing the item, but a disclaimer may need to be included.

**Item Development:**

The Committee assigned Voting status for this item at the 2022 NCWM Interim meeting.

The Committee heard support for this item. The Committee also heard the need to define “Water Activity” which they included by citing the ASTM definition for Water Activity. The Committee sought and received copyright permission from ASTM to use their definition in the printed NIST Handbook materials.

**Original Justification:**

This proposal was drafted by the Method of Sale Focus Group within the NCWM Cannabis Task Group.

The ASTM International D37 Cannabis Committee has more than 900 members, the vast majority of which are industry stakeholders. The first two D37 standards passed through the consensus process related to water activity, one of which used all available data to establish an ideal range of 0.55 to 0.65 for *Cannabis* plant material. The proposal to the Method of Sale herein includes a water activity of 0.60 +/- 0.05. While industry has indicated they will reiterate their support for this water activity standard through the NCWM process it is important for the Committee and Membership to be made aware that approximately 900 industry members have already weighed in on and given their consensus support to this standard. Since *Cannabis* and *Cannabis*-Containing products were first legalized by some states, the industry has undergone an unprecedented expansion. Even though these products haven't received Federal approval at this time, more and more states have supported *Cannabis* and *Cannabis*-Containing products for medicinal or recreational use under their own laws. This has resulted in boutique markets developing across the country with restrictive state boundaries for lack of clarity and uniformity in commercialization of these products.

*Cannabis* and *Cannabis*-Containing products are unique in many aspects; they have a niche as medicine, have resulted in the development of adult use markets, and have an incredible array of different manufacturing and industrial applications. Some of these products contain controlled substances which presents a special concern for the safety and welfare of consumers if misused or mishandled. Further, they are subject to strict regulations by multiple government agencies. *Cannabis* and *Cannabis*-Containing products and applications range from non-food to food products for human and animal consumption through inhalation, ingestion, and/or topical or dermal application. They can be used as ingredients in other commodities, changing in most cases the product identity to *Cannabis* and *Cannabis*-Containing products. Some *Cannabis* and *Cannabis*-Containing products are very susceptible to environmental conditions easily losing or gaining moisture with consequences impacting net quantity, degradation of active cannabinoids, and/or microbial proliferation depending on the situation. These are just some of the reasons there are many concerns and uncertainty surrounding the method of sale and commercialization of *Cannabis* and *Cannabis*-Containing products.

As a new and rapidly developing industry and given the level of uncertainty and lack of uniformity, *Cannabis* and *Cannabis*-Containing products need a clear and consistent method of sale to provide equity and fairness in the marketplace. Uniformity throughout the method of sale of *Cannabis* and *Cannabis*-Containing products would harmonize regulations across states so these products are not limited by their borders. Further, this would ensure clear and fair competition in the marketplace and provide accurate quantity information for consumers to make informed price and quantity comparisons.

*Cannabis* has proven to be susceptible to environmental changes, a source of controlled substances, of a high dollar value, and a safety risk for consumers if misused or mishandled. As a result, *Cannabis* and *Cannabis* products require a water activity standard that shall be maintained throughout the entire distribution process from extraction to retail sale.

Water activity is a measure of "free" water available in the plant material to fuel microorganism growth. It is reported on a scale from 0 to 1. The optimal water activity range for *Cannabis* has been determined through scientific studies to be 0.55-0.65 and correlates to an environment that is least conducive to the growth of destructive and harmful microorganisms (e.g., molds). If *Cannabis* was to be sold with as little water content as possible the product would not remain viable (i.e., loss or destruction of desired components, such as cannabinoids and terpenes) for as long and could subject the public to increased health and safety concerns. It would not be feasible to have a moisture allowance close to zero but a product viability and safety moisture content within the optimal water activity range. A water activity between 0.55 and 0.65 in *Cannabis* typically correlates to a moisture content of 10-12%. (See attached Colorado MED report showing 14% of all flowers failed initial mold/yeast testing before being allowed on the market).

On the *Cannabis* cultivation side, recall that *Cannabis* flower is one of the most valuable materials in the US after precious metals or gems. Between the highest safe water activity (0.65) and the lowest possible water activity (0.04), *Cannabis* flower can fluctuate about 5% in weight. This means that a jurisdiction not having the ability to test water activity through the supply chain stays exposed to bad actors who could manipulate water activity at key points to divert about 5% of any harvest in a way that will completely evade every track and trace system. In a world where oversight agencies are concerned about tracking every gram, leaving thousands of pounds at risk of diversion and the related tax loss to the much more lucrative black market is a hole that needs to be plugged.

In the retail *Cannabis* trade, Insufficient attention and guidance is given to moisture migration in or out of some *Cannabis* packaging and as a result, the contents of some *Cannabis* flower packaging have been found to be underweight, resulting in the patient/consumer paying for weight that they are not receiving. For instance, underweight complaints are the #1 consumer complaint in Oregon. For the fairness and safety of *Cannabis* consumers, a 3% +/- weight variance Containing on enforcement of acceptable moisture range needs to be established. As has been learned in other industries in which W&M has jurisdiction, if something can get out of a retail package during distribution, it can also get in. The ability to test packaged *Cannabis*-Containing products at retail for water activity becomes a safety and equity concern.

Solution: ASTM D8197-20 (1) establishes the ideal moisture range for *Cannabis* flower in terms of water activity of 0.60 +/- 0.05. (Exclusive free access to that and another water activity standard can be accessed at <https://www.astm.org/NCWM.htm> and free access to an ASTM water activity eLearning course can be accessed by reaching out to [Charlie@CPRSquaredinc.com](mailto:Charlie@CPRSquaredinc.com)). This correlates to a moisture content of 10-12 %, which narrows the range of weight variation that must be addressed in dealing with moisture loss.

More than 800 ASTM D37 members concluded that the ideal range for cannabis and hemp flower is 0.55-0.65 (the equivalent to 55-65% Relative Humidity). This was affirmed by the US Pharmacopeia's Expert Cannabis Panel in their Cannabis Paper (2) to mitigate mold growth and maintain the quality attributes.

Consumers/patients buying *Cannabis* products are looking for a desired effect. Those effects are in part determined by the presence of terpenes, which have different scents and provide various therapeutic effects. The presence of these terpenes is diminished as the plant dries and the effects the patient/consumer is expecting are also diminished from what is shown on the label (terpene testing). The US Pharmacopeia has determined the same water activity of 0.60 +/- 0.05 to be ideal for maintaining these quality attributes (e.g., cannabinoid and terpene content) of *Cannabis* flower (attached).

The submitter mentioned the following possible opposing arguments:

- Patients and Consumers don't want to buy water when purchasing *Cannabis*. When it comes to *Cannabis*, they want to buy the right amount of water. The right amount of water (or moisture) helps safeguard the quality and integrity of the *Cannabis* components consumers are purchasing. These active components would degrade in overdried plant material. It could also be argued that by providing a constant moisture content through establishment of a water activity standard for the proper sale of unprocessed *Cannabis* there is a measure of ensuring proper quantity during purchase.
- W&M doesn't regulate quality. To the extent establishing an acceptable water activity range is monitoring quality, this is a positive by-product of monitoring equitable transactions, promoting health and safety and preventing diversion. Oversight of motor fuels is analogous in the sense that the attributes of motor fuel are a function of quality and samples are sent to a lab for testing these attributes.
- Equipment cost. The additional cost of water activity meter(s) should not be prohibitive. It could be easily offset by the revenue that would be saved by preventing over drying and diversion and/or by fees collected. This could be accomplished by random testing of *Cannabis* flower throughout the manufacturing and distributions processes. It should also be noted that setting a water activity standard in the MOS does not establish testing requirements nor frequency of testing requirements.
- Illegal activity. Not every state has legalized the sale and distribution of *Cannabis*, whether it contains more or less than 0.3 % THC. However, there are many states (and federal agencies) that have legalized the sale of *Cannabis* in some form or fashion or another. There are strong indication that federal and other state agencies are working to establish requirements for the sale of *Cannabis* and *Cannabis*-products.
- Some have expressed concern over this water activity applying to *Cannabis*-containing products, which resulted from confusion. The water activity proposed herein would not apply to *Cannabis*-containing products, rather it would only apply to *Cannabis* plant material. Traditional water activity levels applied to food products would not be altered or affected by this proposal.

The submitter requested that this be a Voting Item in 2022.

**B3: NET-22.1 A HB133, Section 1.2.6. Deviations Caused by Moisture Loss or Gain and Section 2.3.8. Table 2-3 Moisture Allowances.**

**Source:**

NCWM Cannabis Task Group

**Purpose:**

Establish an acceptable Net Weight allowance for *Cannabis*, which is related to the MOS Form 15 related to water activity and the Packaging and Labeling Form 15 Sections 2 and 10.

**Item Under Consideration:**

Amend Handbook 133, Checking the Net Contents of Packaged Goods, as follows:

**1.2.6. Deviations Caused by Moisture Loss or Gain**

Deviations from the net quantity of contents caused by the loss or gain of moisture from the package are permitted when they are caused by ordinary and customary exposure to conditions that normally occur in good distribution practice and that unavoidably result in change of weight or measure. According to regulations adopted by the U.S. Environmental Protection Agency, no moisture loss is recognized on pesticides. (see Code of Federal Regulations 40 CFR 156.10.)

**1.2.6.1. Applying a Moisture Allowance**

Some packaged products may lose or gain moisture and, therefore, lose or gain weight or volume after packaging. The amount of moisture loss depends upon the nature of the product, the packaging material, the length of time it is in distribution, environmental conditions, and other factors. Moisture loss may occur even when manufacturers follow good distribution practices. Loss of weight “due to exposure” may include solvent evaporation, not just loss of water. For loss or gain of moisture, the moisture allowances may be applied before or after the package errors are determined.

To apply an allowance before determining package errors, adjust the Nominal Gross Weight (see Section 2.3.6. “Determine Nominal Gross Weight and Package Errors”), so the package errors are increased by an amount equal to the moisture allowance. This approach is used to account for moisture loss in both the average and individual package errors.

It is also permissible to apply the moisture allowances after individual package errors and average errors are determined.

**Example:**

*A sample of a product that could be subject to moisture loss might fail because the average error is minus or the error in several of the sample packages are found to be unreasonable errors (i.e., the package error is greater than the Maximum Allowable Variation (MAV) permitted for the package’s labeled quantity).*

You may apply a moisture allowance after determining the package errors by adding the allowance to the Sample Error Limit (SEL) and then, comparing the average error to the SEL to determine compliance. The moisture allowance must be added to the MAV before evaluating sample errors to identify unreasonable minus errors.  
(Amended 2010)

This handbook provides “moisture allowances” for some meat and poultry products, flour, pasta, **Cannabis (this only includes plant material but does not include products containing Cannabis)** and dry pet food. (see Chapter 2, Table 2-3. “Moisture Allowances”) These allowances are based on the premise that when the average net weight of a sample is found to be less than the labeled weight, but not by an amount that exceeds the allowable limit, either the lot is declared to be within the

moisture allowance or more information must be collected before deciding lot compliance or noncompliance.

Test procedures for flour, some meat, and poultry are based on the concept of a “moisture allowance” also known as a “gray area” or “no decision” area (see Section 2.3.8. “Moisture Allowances”). When the average net weight of a sample is found to be less than the labeled weight, but not more than the boundary of the “gray area,” the lot is said to be in the “gray” or “no decision” area. The gray area is not a tolerance. More information must be collected before lot compliance or noncompliance can be decided. Appropriate

enforcement should be taken on packages found short weight and outside of the “moisture allowance” or “gray area.”

(Amended 2002)

...Table 2-3. Moisture Allowances		
Verifying the labeled net weight of packages of:	Moisture Allowance is:	Notes
Flour	3 %	
Dry pet food	3 %	Dry pet food means all extruded dog and cat foods and baked treats packaged in Kraft paper bags and/or cardboard boxes with a moisture content of 13 % or less at time of pack.
Pasta products	3 %	Pasta products means all macaroni, noodle, and like products packaged in kraft paper bags, paperboard cartons, and/or flexible plastic bags with a moisture content of 13 % or less at the time of pack.
Borax	see Section 2.4. Borax	
<u><b>Cannabis</b></u>	<u><b>3 %</b></u>	<u><b>Cannabis means plant material only, and not products containing Cannabis, whether containing more than 0.3% Total Delta-9 THC (also known as cannabis, Marijuana or Marihuana) or containing 0.3% or less Total Delta-9 THC (also known as Hemp).</b></u>
Wet Tare Only <sup>1</sup>		
Fresh poultry	3 %	Fresh poultry is defined as poultry above a temperature of – 3 °C (26 °F) that yields or gives when pushed with the thumb.
Franks or hot dogs	2.5 %	



Bacon, fresh sausage, and luncheon meats	0 %	For packages of bacon, fresh sausage, and luncheon meats, there is no moisture allowance if there is no free-flowing liquid or absorbent material in contact with the product and the package is cleaned of clinging material. Luncheon meats are any cooked sausage product, loaves, jellied products, cured products, and any sliced sandwich-style meat. This does not include whole hams, briskets, roasts, turkeys, or chickens requiring further preparation to be made into ready-to-eat sliced product. When there is no free-flowing liquid inside the package and there are no absorbent materials in contact with the product, Wet Tare and Used Dried Tare are equivalent.
<p>1Wet tare procedures must not be used to verify the labeled net weight of packages of meat and poultry packed at an official United States Department of Agriculture (USDA) facility and bearing a USDA seal of inspection. The Food Safety and Inspection Service (FSIS) adopted specific sections of the 2005 4th edition of NIST Handbook 133 by reference in 2008 but not the “Wet Tare” method for determining net weight compliance. FSIS considers the free-flowing liquids in packages of meat and poultry products, including single-ingredient, raw poultry products, to be integral components of these products (see Federal Register, September 9, 2008 [Volume 73, Number 175] [Final Rule – pages 52189-52193]).</p>		

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## 2 **Original Justification:**

3 Since *Cannabis* and *Cannabis*-containing products were first legalized by various states, the industry has undergone  
4 an unprecedented expansion. Even though these products haven’t received Federal approval at this time, more and  
5 more states have supported *Cannabis* and *Cannabis*-containing products for medicinal or adult use under their own  
6 laws. This has resulted in boutique markets developing across the country with restrictive state boundaries for lack of  
7 clarity and uniformity in commercialization of these products.

8 *Cannabis* and *Cannabis*-containing products are unique in many aspects; they have a niche as medicine, have resulted  
9 in the development of adult use markets, and have an incredible array of different manufacturing and industrial  
10 applications. Some of these products contain controlled substances which presents a special concern for the safety  
11 and welfare of consumers if misused or mishandled. Further, they are subject to strict regulations by multiple  
12 government agencies. *Cannabis* and *Cannabis*-containing products and applications range from non-food to food  
13 products for human and animal consumption through inhalation, ingestion, and/or topical or dermal application. They  
14 can be used as ingredients in other commodities, changing in most cases the product identity to *Cannabis* products.  
15 Some *Cannabis* is very susceptible to environmental conditions easily losing or gaining moisture with consequences  
16 impacting net quantity, degradation of active cannabinoids, and/or microbial proliferation depending on the situation.  
17 These are just some of the reasons there are many concerns and uncertainty surrounding the moisture allowance of  
18 *Cannabis*.

19 In the retail *Cannabis* trade, insufficient attention and guidance is given to moisture migration in or out of some  
20 *Cannabis* packaging and as a result, the contents of some *Cannabis* flower packaging have been found to be  
21 underweight, resulting in the patient/consumer paying for weight that they are not receiving. For instance, underweight  
22 complaints are the #1 consumer complaint in Oregon. See attached table for data from multiple stores of four brands  
23 and the incidence of underweight contents. **Preview: If you were shopping any one of 3 stores of a popular brand**  
24 **you’d have a 71% chance of buying a supposedly 1.75g package that is 21.6% underweight, meaning you have**  
25 **a 71% chance of being ripped off by \$5 (assuming a \$10/g price). The lowest incidence of underweight? 54%.**  
26 **The lowest percent underweight? 2.75%.**

For the fairness and safety of *Cannabis* consumers, a 3% +/- weight variance based on enforcement of acceptable moisture range needs to be established. A 3% allowance aligns with other known commodities and with California regulations that outline +/- 3%.

**Why 3%?** Consistent with other items in NIST handbook, aligns with California. If the boundaries are too wide, it exposes the program to diversion.

**Is underweight really an issue?** I filed Public Records requests with every state that allows *Cannabis* flower commerce. Each of them told me they keep no official records on underweight complaints. However, Oregon went on record telling me underweight is one of their largest complaints (attached). As for one other state, see attached data from Colorado that recorded 69 separate container purchases from 18 separate stores within 4 brands.

The submitter asked that this be a Voting Item in 2022.

**Previous Action:**

N/A

**Arguments in Favor:**

**Regulatory:**

- Several regulators spoke in favor of moving this item forward as a voting item.
- Several regulators acknowledge that the moisture loss allowance lacks supporting data and that allowing it would set a precedence for future moisture allowance requests but still supported moving this item forwards.
- Justification for moving it forward despite lacking a study to provide data justifying the moisture allowance were “it is a starting point” and “we don’t want to suffer by paralysis by analysis.”

**Industry:**

- The Arizona Dispensary Association and CPR squared supported moving it forward.
- Charles Rutherford, CPR Squared, Chair of the Cannabis Task Group and representing the Cannabis Industry indicated that some containers are 25 percent short due to moisture content.

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- Several regulators suggested that this item not move forward as voting until a moisture loss allowance study, like the one the past industry was required to conduct, be conducted, and presented to the NCWM.

**Industry:**

- None

**Advisory:**

- The NIST OWM voiced concern about the lack of a moisture loss allowance study and the precedence it would set. They suggested that it should be returned to the workgroup until the study is completed and that the study include real world data, 2) be industry wide, 3) describe the manufacturing and distribution process, and 4) the regulatory history for other products.
- Dr. Lipa, NIST OWM stated that OWM wants to move forward with this item, but membership needs to know what the constraints are. States need a license to test under the Controlled Substances Act.

**Neutral Comments:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee designated this item as Assigned at the 2022 NCWM Interim meeting and removed it from Block 3 (B3). The Committee referred it back to the NCWM Cannabis Task Group to conduct a study the moisture loss allowance for Cannabis.

The Committee referred it back to the NCWM Cannabis Task Group to establish data supporting the moisture loss allowance the Task Group recommended. The Committee heard concerns that should the current moisture loss allowance be accepted without a study, the NCWM would be setting a precedence for future moisture loss allowance requests. The Committee considered comments urging the Committee to move forward with the +/- 3 % moisture loss allowance but believes it would be imprudent to accept a moisture loss allowance without supporting data.

The Committee is recommending the NCWM Cannabis Task Group to follow NIST Handbook 130, NCWM, Interpretations and Guidelines section 2.5.6 Guidelines for NCWM Resolution of Requests for Recognition of Moisture Loss in Other Packaged Products to establish the moisture allowances (loss and gain).

A request was made to the Cannabis Task Group for information and data supporting their proposed moisture loss allowance, but as of the time of this writing it was not received.

The Committee assigned Voting status to items B3: PAL-22.1, B3: PAL 22.2 and B3: MOS-22-2 because they heard support for these items and believe they are fully developed.

**Regional Associations' Comments:**

WWMA 2021 Annual Meeting: Ms. Wendy Hahn, (County of Stanislaus, CA) - Provided testimony regarding an editorial change in PAL 22.2 10.XX. (b) to change the word "that" to "than". Ms. Hahn also expressed concern that the Items concerned with percentages of THC were of a more qualitative nature and not necessarily within the purview of weights and measures. Mr. Kurt Floren, (County of Los Angeles, CA) – Mr. Floren addressed the comments and concerns on quality issues as a general matter is not our purview in weights and measures. He mentioned how quality issues are a purview of weights and measures in matters of fuel with octane levels and viscosity of oils that must meet standards. He mentioned that this would be similar in Cannabis, in that THC levels are a part of the identity of the product, and that it is an important component in determining the value and allowing for value comparison. Mr. Floren stated that States are in different stages of regulation, and there is going to be a need for uniform standards. The goal of these regulations is to create acceptable uniformity that can be applied to this unique product. Mr. Charlie Rutherford, (Co-Chair of Cannabis TG, CPR<sup>2</sup>)- Provided testimony that supported Mr. Kurt Floren's comments by drawing a comparison of THC content to the proof of alcohol and it being an important aspect of value comparison. He mentioned that cannabis is a unique industry with a high black-market value and that it is unique with regards to water activity and that regulations regarding water activity are needed to help avoid manipulation. Ms. Cadence Matijevich (State of Nevada) - Provided testimony that the State of Nevada's Department of Agriculture does not have authority over cannabis packaging and labeling regulations, that it is under the purview of the Nevada Cannabis Commission, but that they are willing to participate in drafting regulations. Mr. Joe Moreo (County of Trinity, CA) - Provided testimony that different species of Cannabis should also be provided in the definition of the Cannabis and Cannabis Products. He suggested including Cannabis indica and Cannabis ruderalis. Ms. Lisa Warfield, (NIST OWM) - Provided testimony that was based on the OWM Analysis that was submitted as the supporting documentation.

The Committee recommends this Item be Assigned to the Cannabis Task Group. We recommend the National NCWM L&R Committee consider the following:

- The need to establish an authority in the Uniform Weights and Measures law to provide jurisdictions with authority to enforce the proposed regulations.
- Conduct outreach to state authorities and the industry groups to gain a deeper understanding of the issues pertaining to this item.
- Conduct a survey of the jurisdictions, where the following items are addressed:
- Have Directors consult with their department's attorney to determine if adding the definition and other Cannabis proposed requirements to the uniform packaging and labeling regulation or method of sale for commodities regulations will cause a conflict with other state laws or regulations.
- Establishing the method of sale by weight and establishing minimum load requirement to NIST Handbook 44 are of course within weights and measures authority but some of the labeling and method of sale requirements may not be within the current regulatory authority of some weights and measures programs.
- The most significant question is if state's weights and measure law authorize the director to adopt rules and regulations that require ingredient labeling, safety warnings, potency declarations and if they allow the director to establish and enforce water activity limits and verify potency labeling.

Many of the State's weights and measures laws may not give the state director authority to regulate the types of Cannabis labeling. Amended language will be required to the Uniform Weights and Measures Law to add the needed authority. The following proposed language from the OWM analysis supporting documentation is recommended by the Committee:

#### **Section 11. Powers and Duties of the Director**

The Director shall:

##### **(c) for Cannabis and Products Containing Cannabinoid(s)**

##### **(1) Prescribe by regulation:**

i. **reasonable variations in quantity caused by the loss or gain of moisture during current good distribution practice or by unavoidable deviations in current good manufacturing practice and procedures for moisture determination;**

ii. **labeling requirements for and defining reasonable variations in water activity that occur in current good manufacturing practice and current good distribution practice and procedures for the measurement of water activity;**

iii. **labeling requirements for and define reasonable variations in levels of cannabinoid: delta-9 THC, delta-8 THC (potency) that occur in current good manufacturing practice and current good distribution practice and procedures for the measurement of potency; and**

iv. **packaging and labeling requirements that may include, among other requirements, the characteristics of the packaging (e.g., color) and type of packaging (e.g., tamper evident, childproof), requirements for identity, ingredients, product lot code and date of packaging, contact information of the packer, special symbols or warnings, and potency. The requirements may also include prohibitions on packaging that may be misleading or confusing.**

**(2) The Director may prescribe by regulation, programs that utilize accredited testing laboratories and may enter into agreements to utilize conformity assessment programs and other technical services to ensure compliance with any of the prescribed requirements.**

PAL 22.1-: The agenda item title should be corrected to: **B3: PALS -22.1. Section 2. Definitions 2.XX Cannabis and Cannabis-Containing Products.**

The Committee recommends that the Task Group consider altering the definition of “Cannabis and Cannabis Containing Products” utilizing the minor edits presented in the OWM Analysis supporting documentation. The Committee also recommends including the comments from Joe Moreo during open hearing testimony that other species of the Cannabaceae family such as, Cannabis indica and Cannabis ruderalis may need to be included in the definition.

2.XX. Cannabis and Cannabis-Containing Products – Cannabis is a genus of flowering plants in the family Cannabaceae, of which Cannabis sativa, Cannabis indica, Cannabis ruderalis ~~is~~ are a species. This definition includes products that contain 0.3 percent or less of Total Delta-9 THC (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as Cannabis, Marijuana or Marihuana).

PAL 22.2-: The agenda item title should be corrected to: **Section 10. Exemptions, 10.XX Cannabis and Cannabis-Containing Products.**

The Committee recommends that the Cannabis TG consider altering the proposed language for this item. The intent of the item and the language is unclear, and the Committee recommends that the Cannabis TG review the language and the questions posed in the OWM analysis supporting documentation, to clarify intent and comprehensively address exemptions.

MOS 22.2- The Committee feels that this item is mostly developed but has concerns regarding the parts that address water activity. The Committee recommends that Cannabis TG review the OWM analysis supporting documentation and address questions regarding water activity including test procedures.

NET 22.1- The agenda item title should be corrected to: **B3: NET-22.1. HB133, Section 1.2.6. Deviations Caused by Moisture Loss or Gain and Section 2.3.8. Table 2-3 Moisture Allowances.**

The Committee recommends that this item be further developed. The Committee recommends reviewing the OWM analysis supporting documentation and addressing the concerns with testing procedure, testing equipment, and the need for technical studies regarding moisture loss and gain.

SWMA 2021 Annual Meeting: Dr. Matthew Curran (State of Florida) - Commented on the misinformation provided on the correlation between water activity and moisture content. He had provided a general overview of the two subjects and how they could be confused with one another. He wanted to provide information about the whole purpose of the block item and the work that the task group has done to develop it. He also wanted to address concerns from others in Weights and Measures(W&M) who have stated that labeling of THC content is not a W&M issue; however, in his state complaints have already begun questioning content and quality of cannabis products in various forms. He encouraged the committee and the attendees to move these items forward as a voting item. He is concerned that not moving forward on this subject could be a detriment to the consumers due to a lack of regulations in the market.

Mr. Tim Chesser (State of Arkansas) - Spoke in favor of this group item, except for declaration of net quantity of active ingredients, specifically THC content. He does not believe that it is a Weights and Measures issue and, if passed, his state would strike the statement.

Mr. Charlie Rutherford (ASTM D37 Cannabis and NCWM Cannabis Task Group representative) - Wanted to make clear that he did not represent a water activity meter company. He clarified that his group had completed the outreach recommended by OWM. He brought to light the potential for these products to be distributed on the black market due to their high value.

The SWMA L & R Committee recommends the block as a voting item, with the following language changes to the following sections:

PAL-22.1

The committee wants to consider the suggestion from the OWM to change from the symbol for percent (%) to the written word percent. In addition, change the word “section” to “definition”. The suggested language would read as follows:

**2.XX. Cannabis and Cannabis-Containing Products – Cannabis is a genus of flowering plants in the family Cannabaceae, of which Cannabis sativa is a species. This definition includes products containing more than 0.3 percent Total Delta-9 THC (also known as Cannabis, Marijuana or Marihuana) and products containing 0.3 percent or less Total Delta-9 THC (also known as Hemp).**

PAL-22.2

**10.XX. Cannabis and Cannabis-Containing Products- Any Cannabis or Cannabis-containing products, with the exception of commodities listed under Section 10.9 Textile Products, Threads and Yarns and other non-food products not intended for human or animal application, shall bear on the outside of the package the following:**

**(a) On the principal display panel**

**(i) The statement “Contains Cannabis.”**

**(b) On any panel or surface of the package**

**(i) The statement “Contains more than 0.3% Total Delta-9 THC” or “Contains 0.3% Total Delta-9 THC or less.”**

**(ii) A declaration of the number of milligrams of each marketed cannabinoid per serving or application.**

MOS-22.2

**1.XX.X. Water Activity-When unprocessed Cannabis, is kept, offered, or exposed for sale, sold, bartered, or exchanged, or ownership transfers, the water activity shall be 0.6 (± 0.05).**

**2.XX.X. Water Activity-When unprocessed Cannabis, is kept, offered, or exposed for sale, sold, bartered, or exchanged, or ownership transfers, the water activity shall be 0.6 (± 0.05).**

The Committee believes this Item Block 3 (B3) is fully developed and recommends it to go to the NCWM L & R Committee with a Voting status. The Committee recommends the Cannabis Task Group (CTG) take into consideration recommendations from the OWM analysis, i.e., the survey to State Directors, this could help identify the need for development of items in other sections of the Handbooks, i.e., Powers and Duties of the Director.

CWMA 2021 Interim Meeting: Doug Musick, Kansas commented that he shared this language with a co-worker who regulates hemp. CFR 990.1 defines total delta 9 THC. Loren Minnich, Kansas commented that Kansas defines Cannabis in a way that allows the sale of a different compounds similar to cannabis, and he thinks it should be considered in the development of this item. Dr. Matt Curran, Florida regulator and member of the NCWM Cannabis task force commented that the USDA CFR reference of total delta 9 applies to growth of crops only. Dr. Curran further commented that the term cannabinoids reference a broader group of products since states vary. Mike Harrington, Iowa supports the item and believes it should move forward as a voting item. Lisa Warfield, NIST Technical Advisor commented that there are already regulations that can apply to the sale of any item but each product is not listed. There are also package and labeling regulations currently in the handbook. OWM requests that states provide input to NCWM as to whether adding definitions would be problematic or conflicting within their states. Ms. Warfield further commented that new language was submitted through WWMA and NEWMA, and that the CWMA L&R Committee consider these changes. She asks that the Committee move the water proposal out of Block 3 and consider it separately. Dr. Curran commented that several of comments in the NIST analysis were inaccurate or unclear. He proceeded to address some of those comments, particularly related to water activity. Dr. Curran clarified that this item refers to the

plant itself – not as an ingredient. He also commented that it is important for the regulatory community to remain relevant in the marketplace by developing code in a timely manner. Charlie Rutherford, NCWM Cannabis Co-chair commented that there are supporting documents from large industry representatives that support the water activity language in this item. He also commented that consumers are being cheated and these items need to be adopted. Charlie Stutesman, Kansas commented that he believes waiting on further development puts us even farther behind where commerce currently is. Ivan Hankins, Iowa supports the item moving forward with voting status and suggests the development of a handbook for states who regulate cannabis.

Based on comments during open hearings, supporting documents and discussions, the Committee believes this item is fully developed and ready for voting status.

NEWMA 2021 Interim Meeting: Mr. Jim Cassidy (NCWM Cannabis WG Co-chair) commented that these items are fully developed and ready for Voting status. Dr. Matt Curran (Florida and a member of the National Cannabis WG) concurs. Mr. David Sefcik (NIST Technical Advisor) commented that the NIST analysis is comprehensive and was provided to help see potential problems with some of the items as well as recommended solutions. Among the recommendations are to reach out to various stakeholders; distribute a survey to industry members to gather information regarding labeling authority; add a section to the weights and measures law (see WAM – NEW1). Mr. Sefcik suggested that these block items be considered separately on individual merit – some are more ready than others for Voting status. There are also suggested corrections to the titles for PAL 22.1., PAL 22.2., and NET 22.1. Dr. Curran commented that much work has already been done by ASTM and numerous comments have been received to develop these items for model regulation. He believes it is important to establish these items as a start. Mr. Charlie Rutherford (CPR Squared and Co-Chair – NCWM Cannabis WG) commented that the answers to several of NIST’s questions and comments have already been addressed and he has sources that can provide additional information. He further commented that consumers across various states are being shorted and deceived, and he believes this is a very timely issue and should move forward. Mr. Ivan Hankins, (NCWM Chair and Iowa regulator) commented that he supports moving these items forward with Voting status.

Lisa Warfield, NIST Technical Advisor commented that there are typographical errors in the title of these block items. The Committee recognizes and supports the corrections as they appear in the Western Weights and Measures Report. Ms. Warfield also expressed concern that there are additional areas that appear in the NIST analysis in this block of items that should not be overlooked. Dr. Matt Curran, Florida reviewed the recommended changes in the NIST analysis and is agreeable to NIST’s proposed changes. Ms. Warfield suggested adding a Section 11. Powers and Duties of the Director, in the Uniform Weights and Measures Laws. Marc Paquette, Vermont and Cheryl Ayer, New Hampshire have no objections to the proposed changes in the NIST analysis. Matt Curran, Florida suggested changes to the NIST recommended language in Section 11. These changes are captured in the amended language below. Mr. Sefcik asked if Section 11 should be its own proposal because it does not fall under UPLR subject matter. Mr. Sefcik further suggested that the word “number” be changed to “quantity” in PAL 22.2.(b) (ii). Mr. McGuire proposed that Section 10.XX along with the revised wording from Dr. Curran from Section B; Section C wording be changed from “number” to “quantity”; and adding a new Section 11 from the NIST analysis all be revised. Mike Sikula, New York expressed concern for states who do not have a cannabis program and do not recognize it yet as a legal substance for commercial sale. He wondered if adding this section to the Method of Sale in Handbook 130 would somehow unintentionally require them to enforce a substance not legal for commerce in their states.

In PAL 22.1, OWM recommends that the definition in 2.X.X. Cannabis and Cannabis Containing Products be reordered to provide clarity. The proposed wording below is recommended by the Committee:

**2.XX. Cannabis and Cannabis-Containing Products – Cannabis is a genus of flowering plants in the family Cannabaceae, of which Cannabis sativa, Cannabis indica, Cannabis ruderalis is are a species. This definition includes products that contain 0.3 percent or less of Total Delta-9 THC (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as Cannabis, Marijuana or Marihuana.**

NEWMA recommends the following new language for PAL-22.2.:

Section 10. Requirements: Specific Consumer Commodities, Non-Consumer Commodities, Packages and Containers

10.XX. Cannabis and Cannabis-Containing Products – Any Cannabis or Cannabis-containing products, shall bear on the outside of the package the following:

(a) On the principal display panel

(i) The statement “Contains Cannabis.”

(b) On any panel or surface of the package

(i) The statement “Contains more than 0.3 % Total Delta-9 THC” or “Contains 0.3% Total Delta- 9 THC or less.”

(ii) A declaration of the quantity of milligrams of each marketed cannabinoid

(Added 20XX)

MOS 22.2

Lisa Warfield, NIST Technical Advisor commented that there are recommended changes from NIST in their analysis of this item. David Sefcik, NIST Technical Advisor commented that there were questions raised regarding water activity and product quality and believes these items should be further considered. Dr. Matt Curran, Florida commented that not only is water activity a quality issue, but also a quantity issue just as moisture content is in many other commodities. He commented that ASTM has developed a standard (D8917) for moisture content and water activity and these block items only apply to the cannabis product itself but not as an ingredient in another item such as brownies, etc. Charlie Rutherford concurred with Dr. Curran’s statements and believes the ASTM standard will prevent consumer fraud and misinformation. Mr. Sefcik commented that laws and regulations have been written to prevent economic fraud rather than to address quality and safety issues. He believes that water activity could fall under the same quality-related category. He stated that there needs to be test equipment, procedures, and reliable tolerances for water activity measurements for enforcement purposes. Mr. Rutherford commented that ASTM has developed a specification for this issue (D8196) and test procedure (D8197). Dr. Curran, Florida commented that he believes these issues are relevant to the work of the weights and measures community. ASTM standards can be included and referenced in the Handbook much as they are with fuels. The Committee believes this item is fully vetted and ready for Voting status.

NET 22.1

David Sefcik, NIST Technical Advisor commented that this item seeks to set a moisture allowance (loss or gain) and to his knowledge no work has been done or data provided to determine support the proposed plus or minus allowance. It appears to be arbitrary. Mike Sikula, New York concurs with Mr. Sefcik. He also questioned if water activity and moisture content are the same thing. Dr. Curran commented that water activity is free water available in the product. Moisture content measures the content of water in the product. Cheryl Ayer, New Hampshire asked if it is necessary for the lower-case cannabis to be used in parenthesis. Dr. Curran suggested it was a way to clarify terms. Mr. Rutherford commented that the task group believes the item is developed “enough” to be granted Voting status to have something in place to combat consumer fraud. Lisa Warfield, NIST Technical Advisor recommended removal of the allowance in Table 2.3 and that it be placed in its own table. She asked who would be responsible for training. She believes the item is not ready for voting and needs further work. John McGuire, NJ and Mike Sikula, NY both supports Assigned status. The Committee recommends this item – NET 22.1 only - be given Assigned status and referred to the Cannabis Task Group for further data.

The Committee recommends that this item be further developed and Assigned to the Cannabis TG. The Committee recommends that the TG review the OWM analysis for this item and address the need for technical studies (data) for moisture loss and gain.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.



**ITEM BLOCK 4 (B4) V EPA CFR REFERENCE UPDATES**

B4: MOS-22.1 V Section 2.20.2. Documentation for Dispenser Labeling Purposes. and 2.20.3. EPA Labeling Requirements.

B4: FLR-22.1 V Section 2.1.2. Gasoline-Ethanol Blends., 3.2.5. Documentation for Dispenser Labeling Purposes, and 3.2.6. EPA Labeling Requirements.

**Source:**

NCWM Fuels and Lubricants Subcommittee (FALS)

**Purpose:**

Provide current references to CFR regulations to maintain alignment with Federal EPA regulations.

**B4: MOS-22.1. V Section 2.20.2. Documentation for Dispenser Labeling Purposes. and 2.20.3. EPA Labeling Requirements.**

**Item Under Consideration:**

Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

**2.20.2. Documentation for Dispenser Labeling Purposes.** – The retailer shall be provided, at the time of delivery of the fuel, on product transfer documents such as an invoice, bill of lading, shipping paper, or other documentation:

(a) Information that complies with 40 ~~CFR 80.1503~~ **1090.1110** when the fuel contains ethanol.

(b) For fuels that do not contain ethanol, information that complies with 40 CFR ~~80.1503~~ **1090.1110** and a declaration of the predominant oxygenate or combination of oxygenates present in concentrations sufficient to yield an oxygen content of at least 1.5 mass percent in the fuel. Where mixtures of only ethers are present, the fuel supplier may identify either the predominant oxygenate in the fuel (i.e., the oxygenate contributing the largest mass percent oxygen) or alternatively, use the phrase “contains MTBE or other ethers.”

(c) Gasoline containing more than 0.15 mass percent oxygen from methanol shall be identified as “with” or “containing” methanol.

(Added 1984) (Amended 1985, 1986, 1991, 1996, ~~and~~ 2014, and 20XX)

**2.20.3. EPA Labeling Requirements.** – Retailers and wholesale purchaser-consumers of gasoline shall comply with the EPA pump labeling requirements for gasoline containing greater than 10 volume percent (v%) up to 15 volume percent (v%) ethanol (E15) under 40 CFR ~~80.1504~~ **1090.1510**. (For additional information, refer to Section 2.30.2. FTC Labeling Requirements.)

(Added 2018) (Amended 20XX)

**B4: FLR-22.1 V Sections 2.1.2. Gasoline-Ethanol Blends., 3.2.5. Documentation for Dispenser Labeling Purposes, and 3.2.6. EPA Labeling Requirements.**

**Item Under Consideration:**

Amend Handbook 130, Uniform Engine Fuels and Automotive Lubricants Regulation, as follows:

**2.1.2. Gasoline-Ethanol Blends.** – When gasoline is blended with denatured fuel ethanol, the denatured fuel ethanol shall meet the latest version of ASTM D4806, “Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel,” and the blend shall meet the latest

version of ASTM D4814, “Standard Specification for Automotive Spark-Ignition Engine Fuel,” with the following permissible exceptions:

- (a) The maximum vapor pressure shall not exceed the latest version of ASTM D4814, “Standard Specification for Automotive Spark-Ignition Engine Fuel,” limits by more than 1.0 psi for blends from June 1 through September 15 as allowed by EPA per 40 CFR ~~80.27(d)~~ 1090.215(b).

(Amended 2016, 2018, ~~and 2019~~, and 20XX)

**3.2.5. Documentation for Dispenser Labeling Purposes.** – For automotive gasoline, automotive gasoline-oxygenate blends or racing gasoline, the retailer shall be provided, at the time of delivery of the fuel, on product transfer documents such as an invoice, bill of lading, shipping paper, or other documentation:

- (a) Information that complies with 40 CFR ~~80.1503~~ 1090.1110 when the fuel contains ethanol.  
(Added 2014) (Amended 20XX)

- (b) For fuels that do not contain ethanol, information that complies with 40 CFR ~~80.1503~~ 1090.1110 and a declaration of the predominant oxygenate or combination of oxygenates present in concentrations sufficient to yield an oxygenate content of at least 1.0 % by volume in the fuel. Where mixtures of only ethers are present, the fuel supplier may identify either the predominant oxygenate in the fuel (i.e., the oxygenate contributing the largest mass percent oxygen) or alternatively, use the phrase “contains MTBE or other ethers.”

(Added 2014) (Amended 20XX)

- (c) Gasoline containing more than 0.3 % by volume methanol shall be identified as “with” or “containing” methanol.

(Added 2014) (Amended 2018)

(Amended 1996, 2014, and 2018)

**3.2.6. EPA Labeling Requirements.** – Retailers and wholesale purchaser-consumers of gasoline shall comply with the EPA pump labeling requirements for gasoline containing greater than 10 volume percent (v%) up to 15 volume percent (v%) ethanol (E15) under 40 CFR ~~80.1504~~ 1090.1510. (For additional information, refer to Section 3.8.2. FTC Labeling Requirements.)

(Added 2012) (Amended 2018 ~~and 20XX~~)

(Amended 2018 ~~and 20XX~~)

**Previous Action:**

N/A

**Arguments in Favor:**

**Regulatory:**

- FALS recommended moving item forward as a voting item.
- Several regulators supported moving item forward as a voting item.

**Industry:**

- API supported moving it forward as a voting item.

**Advisory:**

- None

**Arguments Against:****Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:****Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee assigned Voting status for this item at the 2022 Interim Meeting.

The Committee assigned Voting status to this item because it heard favorable comments without opposition and believes it is fully developed.

**Original Justification:**

EPA has changed the location of 40 CFR Part 80 fuel requirements currently referenced in NIST HB 130 to a new location, 40 CFR Part 1090. Beginning January 1, 2021, the references in 40 CFR Part 80 became obsolete. In addition, the Government Printing Office will be removing the text of the old references to the expired 40 CFR Part 80 sections beginning January 1, 2022. For NCWM to have the correct references in the Handbook, these citations must be updated to the new citation. Failure to do so in NIST Handbooks can cause regulatory confusion. In addition, certain states are already considering revising their state laws and regulations to update these expired citations.

On December 4, 2020, the U. S. Environmental Protection Agency published a Final Rule, Fuels Regulatory Streamlining, (85 FR 78412). The purpose of the rule was to update and modernize EPA's existing gasoline, diesel, and other fuel regulations and remove inconsistencies. Under the EPA Fuels Regulatory Streamlining Rule, the majority of fuels provisions were relocated from 40 CFR Part 80 to a new 40 CFR Part 1090.

FALS formed an EPA Streamlining Focus Group in January 2021 in response to the EPA Fuels Regulatory Streamlining Rule. The purpose of the Focus Group was to review Handbook 130 and determine what updates are necessary to align NIST Handbooks with the new EPA Streamlining Rule. The Focus Group analyzed all of EPA's new Fuels Streamlining regulation and what changes were needed in Handbook 130 and concluded that the only items needing to be updated were to correct obsolete references to the Code of Federal Regulations.

Because NIST HB 130 is not "EPA centric", there are only 3 individual references that need to be updated in HB 130. Since these 3 references are repeated in different sections and Chapters of HB 130, there are only a total of 7 references needing to be corrected for all of Handbook 130 to align with EPA's Fuels Streamlining regulation. There are no other revisions necessary currently.

The recommendations of the FALS Focus Group were submitted by the EPA Streamlining Focus Group to the FALS Chair and were widely disseminated. They were also discussed at the FALS meeting during the Annual Meeting and were approved during the meeting for submission to the Laws and Regulations Committee.

**The text of the actual red-line changes and proposed revisions are provided below.** NCWM voted to adopt by reference these specific sections of EPA fuel requirements several years ago with the intent to maintain consistency between these EPA regulations and Handbook 130 without the need for additional action by NCWM.

In updating the reference to the correct number, the Conference would merely be continuing its decision to adopt these referenced sections by correcting the individual citations. The three sections of 40 CFR Part 80 that were renumbered to 40 CFR Part 1090 by EPA and incorporated by reference into Handbook 130 are as follows:

- 40 CFR Part 80.27(d) which grants a 1.0 psi RVP waiver for gasoline containing specific percentages of ethanol is now found in 40 CFR 1090.215(b)
- 40 CFR Part 80.1501 which covers EPA labeling requirements for certain ethanol blends is now found in 40 CFR Part 1090.1510
- 40 CFR Part 80.1503 which covers requirements for product transfer documents is now found in 40 CFR Part 1090.1110

These references occur in the following sections of NIST Handbook 130:

- NIST Handbook 130 “Uniform Fuels and Automotive Lubricants Regulation” Sections:
  - 2.1.2. Gasoline-Ethanol Blends
  - 3.2.5. Documentation for Dispenser Labeling Purposes
  - 3.2.6. EPA Labeling Requirements
- NIST Handbook 130 “Uniform Method of Sale of Commodities” Sections:
  - 2.20.2 Documentation for Dispenser Labeling Purposes
  - 2.20.3 EPA Labeling Requirements

The obsolete fuel quality regulations contained in 40 CFR Part 80 are currently published on the Electronic Code of Federal Regulations ([www.ecfr.gov](http://www.ecfr.gov)) website. The replaced references in 40 CFR Part 80 will be removed from the Code of Federal Regulations and will no longer be accessible on January 1, 2022.

The proposed updates were presented to the Fuels and Lubricants Subcommittee (FALS) by its EPA Streamlining Focus Group during the FALS meeting held at the July 2021 meeting of the National Conference on Weights and Measures. During that meeting, FALS endorsed sending the proposed revisions forward for adoption and inclusion in HB 130. That action was summarized in the Report of FALS to the Laws and Regulations Committee. While there was a question as to whether to revise terminology, that was determined by FALS to be outside of the scope of these EPA streamlining changes.

The submitter requested that this be a Voting Item in 2022.

#### **Regional Associations’ Comments:**

WWMA 2021 Annual Meeting: The Committee heard many comments in support of this item. The Committee recommends this as a voting item.

SWMA 2021 Annual Meeting: Mr. Prentiss Searles (API) and Mr. Randy Jennings (FALS) both spoke in support of this as a Voting item. NIST OWM provided written analysis that recommended that this proposal be made a Voting item.

The Committee believes this item has merit and is fully developed. The Committee recommends this item as a Voting Item.

CWMA 2021 Interim Meeting: Randy Jennings, representing FALS gave a background on this item, and FALS recommends this item move forward as a voting item. Marilyn Herman, Herman & Associates as chair of the FALS

EPA Streamlining Rule Task Group commented that the task group supports this item moving forward as a voting item. Chuck Corr, Iowa Renewable Fuels Association, commented that he believes there is an error in FAL 22.1 - (2.20.3 should be stricken and made 3.2.6). He further commented that the new EPA citation reference contains more information than the old citation, and he is concerned it will be more confusing. He is proposing changes which he indicated were relatively minor but further clarify the intent. Charlie Stutesman, Kansas commented that incorporating references in HB 130 rather than listing out the actual language was already adopted by the Conference. He believes the item is ready for voting status. Mr. Jennings commented that the scope of the task group was to change the reference from Part 80 to Part 1090 and to make sure there were no unintended consequences. Kristy Moore, Growth Energy commented that she has additional questions about Part 1090 and wonders if regulators understand that 1090 might broaden their responsibilities. Mike Harrington, Iowa commented that he believes the item needs to be developed. Tamara Paik, Marathon commented that as a regulated entity they must comply with both federal and state regulation, and she believes that if there are further discussions to be had on the issue, they should occur. Rebecca Richardson, NBB and member of the FALS EPA Streamlining task group commented that while there are issues to consider in Part 1090, the purpose of the focus group was to make sure nothing that was in the handbook was omitted as the reference moved from Part 80 to 1090. Ron Hayes, retired regulator from Missouri concurs. The Committee believes this item has been fully developed and ready for voting status.

NEWMA 2021 Interim Meeting: Mr. Randy Jennings (retired Tennessee) commented that FALS Chair Striejewski asked him to relay that these items have already been fully vetted and are ready for Voting status. Mr. John McGuire (New Jersey) supports the items moving forward as a Voting status. Mr. Chuck Corr (Iowa RFA) commented that there are considerable differences between the old citation number and the new citation number being proposed here, and he believes this could cause confusion among regulators. He believes the items need further development. Mr. Mike Sikula (New York) supports the items but wants to hear from Mr. Corr the differences between the old citation and the new citation. Mr. Corr believes that the new citation number references a much broader code. Mr. Jennings commented that the language in the new citation reference is a very close match to the old reference. Ms. Marilyn Herman (former Chair of the FALS EPA Streamlining FG) stated the FG had reviewed the language in both CFR codes, and agreed that there were no substantial changes between former and new CFR renumbered sections. Ms. Herman commented that the EPA Streamlining FG has nothing more to pursue on this item. Ms. Tamara Paik (Marathon Petroleum) commented that she supported this item moving forward as a Voting item. The Committee recommends this item move forward with Voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

## **ITEM BLOCK 6 (B6) A TRANSMISSION FLUID**

### **Source:**

Missouri Department of Agriculture

### **Purpose:**

Protect consumers by providing a cautionary statement of package labels of obsolete transmission fluids.

## **B6: MOS-21.1. A Section 2.36.2. Labeling and Identification of Transmission Fluid**

### **Item Under Consideration:**

Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

**2.36.2. Labeling and Identification of Transmission Fluid.** – Transmission fluid shall be labeled or identified as described below.

(Added 2017)

**2.36.2.1. Container Labeling.** – The label on a container of transmission fluid shall not contain any information that is false or misleading. Containers include bottles, cans, multi-quart or liter containers, pails,

1 kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of transmission fluid shall  
2 be labeled with the following:

- 3 (a) the brand name;
- 4 (b) the name and place of business of the manufacturer, packer, seller, or distributor;
- 5 (c) the words "Transmission Fluid," which may be incorporated into a more specific description of  
6 transmission type such as "Automatic Transmission Fluid" or "Continuously Variable Transmission  
7 Fluid";
- 8 (d) the primary performance claim or claims met by the fluid and reference to where any supplemental  
9 claims may be viewed (for example, website reference). Performance claims include but are not  
10 limited to those set by original equipment manufacturers and standards setting organizations such  
11 as SAE and JASO and are acknowledged by reference; and
- 12 (e) an accurate statement of the quantity of the contents in terms of liquid measure.
- 13 (f) Any obsolete equipment manufacturer specifications shall be clearly identified as "obsolete"  
14 and accompanied by the following cautionary statement on the principal display in accordance  
15 with the Uniform Packaging and Labeling Regulation, Section 8. Prominence and Placement:  
16 Consumer Packages and Section 9. Prominence and Placement: Non-Consumer Packages.

17 Caution: Some of the specifications are no longer deemed active by the original equipment  
18 manufacturer. Significant harm to the transmission is possible when using in applications in  
19 which it is not intended. Always refer to your vehicle owner's manual for proper transmission  
20 fluids.

21 The above ~~warning~~ cautionary statement is not required if the fluid claims to meet current  
22 original equipment manufacturer's specifications and refers to thereby preceding  
23 specifications  
24 (Added 20XX)

25 (Added 2017 and Amended 20XX)

26 **B6: FLR-21.2. A Section 3.14.1. Labeling and Identification of Transmission Fluid**

27 **Item Under Consideration:**

28 Amend Handbook 130, Uniform Fuels and Automotive Lubricants Regulation, as follows

29 **3.14.1. Labeling and Identification of Transmission Fluid.** – Transmission fluid shall be labeled or identified  
30 as described below

31 (Added 2017)

32 **3.14.1.1. Container Labeling.** – The label on a container of transmission fluid shall not contain any  
33 information that is false or misleading. Containers include bottles, cans, multi-quart or liter containers, pails,  
34 kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of transmission fluid shall  
35 be labeled with the following:

- 36 (a) the brand name;
- 37 (b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the words “Transmission Fluid,” which may be incorporated into a more specific description of transmission type such as “Automatic Transmission Fluid” or “Continuously Variable Transmission Fluid”;

(d) the primary performance claim or claims met by the fluid and reference to where any supplemental claims may be viewed (e.g., website reference). Performance claims include but are not limited to those set by original equipment manufacturers and standards setting organizations such as SAE and JASO and are acknowledged by reference; and

(e) an accurate statement of the quantity of the contents in terms of liquid measure.

(f) **Any obsolete equipment manufacturer specifications shall be clearly identified as “obsolete” and accompanied by the following cautionary statement on the principal display panel in accordance with the Uniform Packaging and Labeling Regulation, Section 8. Prominence and Placement: Consumer Packages and Section 9. Prominence and Placement: Non-Consumer Packages.**

**Caution: Some of the specifications are no longer deemed active by the original equipment manufacturer. Significant harm to the transmission is possible when using in applications in which it is not intended. Always refer to your vehicle owner’s manual for proper transmission fluids.**

**The above cautionary statement is not required if the fluid claims to meet current original equipment manufacturer’s specifications and refers to thereby preceding specifications**

**(Added 20XX)**

(Amended 2017 **and 20XX**)

**Previous Action:**

- 2021: Assigned to the NCWM Fuels and Lubricants Subcommittee for further Development

**Arguments in Favor:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Arguments Against:**

**Regulatory:**

- None

**Industry:**

- None

**Advisory:**

- None

**Neutral Comments:**

**Regulatory:**

- FALS requested permission to seek non-member expertise to advise the subcommittee.

**Industry:**

- None

**Advisory:**

- None

**Item Development:**

The Committee supports keeping this item as assigned to FALS at the 2022 Interim Meeting and with the support and understanding that they would seek the necessary expertise to fully develop this item.

**Original Justification:**

Cautionary statements regarding obsolete products are currently required for tractor hydraulic fluids and are under consideration for motor oil. A cautionary statement and its position on the product label are currently not required for Transmission fluid in either the Method of Sale, or Fuels and Lubricants Regulations. This proposal will protect consumers by ensuring they are informed when purchasing transmission fluids.

The submitter acknowledged that there may be argument that there is not sufficient space on the front package label for a cautionary statement.

The submitter requested voting status for this item in 2021.

**Arguments in Favor:**

**Regulatory:**

- 2021 Interim: Mr. Ron Hayes (retired) provided an overview to the Committee regarding the issue with obsolete fluids in the marketplace. He also remarked that at the CWMA 2020 Meeting he with worked with Ms. Warfield (NIST OWM) to clarify the language in the first paragraph of (f).
- 2021 Annual Meeting: FALS Chair Bill Striejewski provided an updated that Ms. Johnson provided an update of the FG work to date. The FG has concluded that the model regulation in the handbook is sufficient, but there is no licensing system for transmission fluid as there is for engine oil. Transmission fluids have been found in the marketplace in Missouri that are not suitable for use in some transmissions. The group is working to harmonize the various standards across the industry. Several OEM specifications have been found and are being categorized. This work is ongoing.

**Industry:**

- 2021 Annual Meeting: During open hearings several industry representatives spoke in support of this item.

**Advisory:**

- 

**Arguments Against:**

**Regulatory:**

-



**Industry:**

- 

**Advisory:**

- 2021 Interim: Ms. Warfield (NIST OWM) remarked that the language should be clear and conspicuous following the UPLR. It was unknown whether this product type include both consumer and non-consumer type packaging.

**Neutral Comments:**

**Regulatory:**

- 2021 Interim: FALS Chair Bill Striejewski informed the Committee that Ms. Johnson provided a presentation that provides additional information, and he will request NCWM post this

**Industry:**

- 2021 Interim: Ms. Johanna Johnson would like additional time to reach consensus with industry regarding to align terminology (e.g., obsolete, current, active). Ms. Johnson requested the Committee provide this with an informational status.

**Advisory:**

- 2021 Interim: Ms. Warfield had noted that UPLR does not have specifications for color however, Section 8. does state it must be conspicuous.

**Item Development:**

NCWM 2021 Interim Meeting: The Committee reviewed the following item for consideration in NCWM Publication 15 (2021):

- (e) **Any obsolete equipment manufacturer specifications shall be clearly identified as “obsolete” and accompanied by the following warning on the principal display panel in clearly legible font size and color as stated in Uniform Packaging and Labeling Regulation 8.2.2.:**

**Caution: Some of the specifications are no longer deemed active by the original equipment manufacturer. Significant harm to the Transmission is possible when using in applications in which it is not intended. Always refer to your vehicle owner’s manual for proper transmission fluids.**

**The above warning is not required if the fluid claims to meet current original equipment manufacturer’s specifications and refers to thereby preceding specifications**

**(Added 20XX)**

It was agreed by the Committee that this language should be identical to the language that was just voted in at the 2020 NCWM Annual Meeting within Item Block 2. Tractor Hydraulic Fluid.

The Committee provided this a status of Assigned and would like FALS to further evaluate with recommendations that Ms. Johnson provides. The Committee would like FALS to review the language to see if this product includes consumer and non-consumer type packaging. Many spoke in support of how this item will be developed through FALS.

NCWM 2021 Annual Meeting: No action taken by the Committee.

**Regional Associations’ Comments:**

WWMA 2021 Annual Meeting: Mr. Russ Lewis, (API) – Provided testimony in support of this Block moving forward as a Voting Item. Mr. Bill Striejewski, (FALS Chair) – Stated that this Item Block has been assigned to FALS, and that the item is being worked on by a Task Group led by Joanna Johnson from the AOCA. Mr. Ron Hayes (Retired,

Missouri) – Stated as part of the Task Group they are working on a list with Allan Morrison (CDFA – DMS). The list is comprised of both current and obsolete automatic transmission fluids.

The Committee recommends that this item remain Assigned. The Committee supports the work that the FALS Subcommittee is conducting.

SWMA 2021 Annual Meeting: Prentiss Searles (API) is in support of this item remaining as Assigned. NIST OWM provided written analysis supporting the development of this Blocked item through FALS.

The Committee recommends this item to remain Assigned.

CWMA 2021 Interim Meeting: Ron Hayes, retired regulator from Missouri commented that there have been several meetings related to this issue, and he and Alan Morrison, California regulator are working on a list of specifications for all existing transmission fluids for engines. He believes the item is fully developed and is ready for voting status pending the completion of the list of specifications for transmission fluids for engines. Joanna Johnson, Automotive Oil Change Association, and chair of the FALS Transmission Fluid Focus Group made several comments. The focus group does not recommend the current language because there is no clear distinction or understanding of the definition of obsolete. The focus group is supportive of developing the complete list of specifications to see if there is a way to distinguish ones that are not fit for purpose or should be considered obsolete, and the engine manufacturers will comply with. Based on comments provided during open hearings, the Committee recommends the item remain assigned to the focus group.

NEWMA 2021 Interim Meeting: Mr. Ron Hayes (retired Missouri and a FALS member) provided an update on this item. Ms. Joanna Johnson (TG Chairs) submitted a statement that Mr. Hayes read. Ms. Lisa Warfield, NIST Technical Advisor commented that she recommends the item move forward with Voting status provided the list of obsolete transmission fluids is completed by April 2022 (deadline for NCWM Publication 16). Mr. McGuire supports NIST's recommendation as a Voting item, as does the Committee.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to <https://www.ncwm.com/publication-16> to review these documents.

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Mr. John McGuire, New Jersey | Committee Chair  
Mr. Doug Rathbun, Illinois | Vice-Chair  
Mr. Kevin Schnepf, California | Member  
Mr. Tory Brewer, West Virginia | Member  
Mr. Mauricio Mejia, Florida | Member  
Mr. Prentiss Searles, American Petroleum Institute | AMC Representative  
Mr. Rowan Hemsing, Measurement Canada | Canadian Technical Advisor  
Mr. David Sefcik, NIST OWM | NIST Technical Advisor  
Ms. Lisa Warfield, NIST OWM | NIST Technical Advisor  
Mr. Constantine Cotsoradis, NCWM | Committee Coordinator

#### **Laws and Regulations Committee**

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